

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST AREA OFFICE

725 FRONT STREET, SUITE 300

MANTUA CRUZ, CA 95060

(415) 427-4863

HEARING IMPAIRED: (415) 904-5200

Fla



RECORD PACKET COPY

Filed: 11/03/97
49th day: waived
180th day: waived
Staff: SM-SC
Staff Report: 2/25/98
Hearing Date: 3/13/98
Commission Action:

**STAFF REPORT
REGULAR CALENDAR**

APPLICATION NUMBER: 3-97-078

APPLICANT: PORT SAN LUIS HARBOR DISTRICT

PROJECT LOCATION: Port San Luis Harbor, San Luis Obispo County. Dredging to occur in harbor waters from area west of Olde Port Beach to area west of Harford Pier, with disposal of spoils at Olde Port Beach, Avila Beach, PG&E beach, and/or upland location.

PROJECT DESCRIPTION: Renewal of 5 year maintenance dredging and disposal program (dredging/disposal limited to 30, 0000 cubic yards of sand/sediment per year); and, repair and maintenance of the following harbor facilities and structures: Avila Beach pier; Harford pier; boat launch floating dock and adjacent seawall; mobile boat hoist pier, dock, and seawall; all floating docks and landings within the Colreg Line of Demarcation; and, the Harford parking lot seawall and rip rap. Planned repair and maintenance activities include the repair and/or replacement of pier components such as pilings and decking, the retrieval and replacement of any dislodged rip rap, and the repair and replacement of floating docks, moorings, and mobile boat hoist components. All repair and maintenance activities will conform to existing footprints and specifications. Replacement pilings will be plastic wrapped creosote treated piles.

LOCAL APPROVALS: None required for repair and maintenance of harbor structures and dredging (State tidelands); exemption for disposal of dredge materials granted by San Luis Obispo County on September 20, 1993.

FILE DOCUMENTS: Coastal Development Permit 3-93-27 (Port San Luis Harbor District Maintenance Dredging); Coastal Development Permit 3-96-089 (Monterey Harbor Operations and Maintenance Program); research studies regarding creosote cited in findings.

SUMMARY OF STAFF RECOMMENDATION

The staff recommends that the Commission approve the maintenance dredging program and the proposed repair and maintenance activities, as these activities will serve recreational boating and commercial fishing consistent with Coastal Act Section 30234. The maintenance dredging represents a continuation of work authorized previously under CDP No. 3-93-27. The staff further recommends that this approval be subject to conditions that ensure the protection of marine resources, and public access and recreation opportunities during project implementation. This permit will be valid for a 5 year period, to match the Corps permit cycle, and to provide the Commission with an opportunity to re-evaluate any new information applicable to the repair and maintenance program prior to permit renewal.

With respect to the use of plastic wrapped creosote treated piles, the staff recommends limited approval, with conditions that require: compliance with the California Department of Fish and Game Guidelines for the use of plastic-wrapped, creosote treated pilings (attached as Exhibit 12); and, the implementation of a piling inspection and reporting program, to ensure that the integrity of the plastic wrapping is maintained. In addition, the recommended conditions identify that if new or better scientific information reveals that less environmentally damaging materials are feasible to implement in Wharf repairs, the permittee is required to revise procedures or use new materials consistent with the new information, after consulting with the Executive Director.

I. STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolution:

Approval with Conditions.

The Commission hereby approves a permit for the proposed development, subject to the conditions below, on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the Coastal Act and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act. The project is located seaward of the first public road nearest the sea and will be in conformance with the public access and recreation policies of the Coastal Act.

II. 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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
5. 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.
6. 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.

III. SPECIAL CONDITIONS

1. Permit Expiration. This permit shall be valid for 5 years from the date of Commission approval (until March 13, 2003), or until the U.S. Army Corps of Engineers permit for the authorized activities expires, whichever comes first. An extension of this expiration date may be achieved through an amendment to this permit.
2. Final Project Plans. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF ANY REPAIR AND MAINTENANCE ACTIVITY AUTHORIZED BY THIS PERMIT, the permittee shall submit, for Executive Director review and approval, final project plans for that component of the repair and maintenance program. Final plans shall identify the exact design and location of the development, materials to be used, and the disposal method/location for removed or demolished materials.

Final plans for each component of the operations and maintenance plan shall be accompanied by a construction operations plan, for Executive Director review and approval, which provides a written description and supporting graphics documenting: construction sequence (i.e., phasing); seasonal considerations (e.g., tidal and wave constraints, grunion spawning); and location of equipment staging areas, employee restrooms, employee parking, temporary security fencing, concrete washdown facility, and any similar elements which have the potential to impact water quality or public access to the shoreline. To the maximum extent feasible, construction phasing shall maintain opportunities for public parking and shoreline access during construction.

Minor repair and maintenance activities included within the repair and maintenance program which do not have the potential to impact public access or marine resources may not, however, necessitate submission of the detailed final plans required above. In such cases, the permittee shall notify the Executive Director of the proposed minor repair and maintenance activity PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, for a determination if additional information is needed.

3. Dredging Requirements. PRIOR TO THE COMMENCEMENT OF EACH DREDGING EPISODE, the permittee shall submit, for Executive Director review and approval, a detailed dredging plan that identifies the areas to be dredged, the project depth, the overdredge depth, the quantity of material to be dredged, and the specific location of dredge spoils disposal.

Submission of the dredging plan shall be accompanied by sediment testing reports confirming that the sediments to be dredged are physically and chemically suitable for beach disposal (i.e., at least 80% sand and meeting Regional Water Quality Control Board and U.S. Environmental Protection Agency standards for beach disposal), and written evidence that all

necessary approvals from the following agencies have been secured for the proposed dredging operation (including spoils disposal) or that no such approvals are required: U.S. Army Corps of Engineers, Central Coast Regional Water Quality Control Board, Department of Fish and Game, State Lands Commission, and San Luis Obispo County Health Department. Any dredge spoils determined not to be suitable for beach disposal shall be disposed of at an upland location approved by the Executive Director (if within the coastal zone).

ON A PERIODIC BASIS DURING DREDGING OPERATIONS INVOLVING BEACH DISPOSAL, the deposited material shall be graded and groomed to natural beach contours. Grading/grooming shall not preclude or significantly impair public access to, or use of, the beach, and shall not be conducted on weekends. If disposal and/or grooming of dredge spoils will be conducted during the California grunion spawning season (March 1 - September 1), the affected beach area shall be monitored by a qualified professional biologist, approved by the Executive Director, to determine if grunion runs are occurring. If grunion runs are observed, the permittee shall cease all sand spreading operations during any forecasted four-day grunion spawning period, and if eggs are found, all activities on the beach shall cease until grunion eggs have hatched.

4. Piling Materials. This permit authorizes the use of creosote piles only if wrapped prior to installation in a watertight plastic sleeve in accordance with current industry standards. To prevent the introduction of toxins into the marine environment, the use of plastic wrapped creosote treated piles as replacement pilings shall conform to the following requirements:

a. Compliance with Fish and Game Guidelines. The use of plastic wrapped creosote treated pilings shall comply with the guidelines established by the Department of Fish and Game for the use of such materials (Exhibit 12). PRIOR TO THE COMMENCEMENT OF PILING INSTALLATION, the permittee shall submit, for Executive Director review and approval, written evidence that the Department of Fish and Game has determined that the use of such materials at this specific harbor and in this particular circumstance is consistent with these guidelines.

b. Water Quality Review. PRIOR TO THE INSTALLATION OF PLASTIC WRAPPED CREOSOTE TREATED PILINGS, the permittee shall submit, for Executive Director review and approval, written evidence that the Regional Water Quality Control Board has reviewed and approved the use of such materials, or evidence that no such approvals are required.

c. Piling Inspection and Reporting Program. ON AN ANNUAL BASIS FOR ALL PLASTIC WRAPPED CREOSOTE TREATED 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 plastic wrapped creosote treated piling is installed, the permittee shall submit, for Executive Director review and approval, a piling inspection report that documents the integrity of the plastic wrapping for all creosote treated pilings installed under this permit, and all corrective actions that have or will be immediately undertaken to maintain an effective watertight seal. The inspections shall be synchronized, where feasible, to precede the periods of maximum expected harbor occupancy. Alternatively, the permittee may submit a different timeline for the piling inspection and reporting program, that ensures that the structural integrity of the plastic wrapping is properly maintained; the alternative timeline shall be reviewed and approved by

the Executive Director PRIOR TO THE INSTALLATION OF PLASTIC WRAPPED CREOSOTE TREATED PILINGS.

d. 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. The substitution of non-creosote treated piling materials may be authorized by the Executive Director. Other revisions may require an amendment to this permit.

5. Water Quality Protection. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY THAT WILL DISTURB OCEAN SEDIMENTS (e.g., installation of pilings), the permittee shall submit, for Executive Director review and approval, a sediment testing program to detect the presence of any heavy metals, petroleum hydrocarbons, and any other organic chemical contaminants in the project vicinity. The permittee may include existing testing data for the area in order to narrow down any additional testing that may be required, and is encouraged to submit a single, comprehensive testing program that would cover the full range of dredging, repair, and maintenance activities to be undertaken throughout the five year period.

FOLLOWING EXECUTIVE DIRECTOR APPROVAL AND SUBSEQUENT IMPLEMENTATION OF THE TESTING PROGRAM, the permittee shall submit, for Executive Director review and approval, testing results, and proposed measures to mitigate any significant risks to water quality that would likely result from the proposed activity. Typically, such measures would contain any contaminated sediments or petroleum hydrocarbons detected (e.g., use of a flexible skirt around the driven pile). This submittal shall be accompanied by written evidence that the Regional Water Quality Control Board has reviewed the testing results and approved the proposed construction work, or that no such approval is required.

6. 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, where feasible, shall be treated at an onshore location to preclude the possibility of spills into state waters. When ocean conditions allow, a floating containment boom shall be placed around active portions of a construction site where wood scraps or other floatable debris could enter the water. Also, for any work on or beneath pier 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 to offset the cost of retrieving or cleaning up any foreign materials not properly contained.

7. Procedures for Concrete Work. Any component of the repair and maintenance program involving the pouring of concrete in, adjacent to, or above the water shall employ the following methods to prevent uncured concrete from entering state 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 the placement of a form in the water, inserting a plastic pipe 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, in accordance with the following California Department of Fish and Game recommendations. 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 in consultation with the California Department of Fish and Game PRIOR TO THE COMMENCEMENT OF WORK.

In each case involving concrete pours in, adjacent to, or above state waters, the permittee shall insure that a separate wash out area is provided for the concrete trucks and for tools. The washout area(s) shall be designated and located so that there will be no chance of concrete slurry or contaminated water runoff to ocean waters.

8. U.S. Army Corps of Engineers Approval. PRIOR TO THE COMMENCEMENT OF ANY ELEMENT OF THE REPAIR AND MAINTENANCE PROGRAM, the permittee shall submit, for Executive Director review and approval, documentation of approval from the U.S. Department of the Army, Corps of Engineers, or evidence that such approval is not required.

9. Additional Harbor Improvements. Additional dredging, or installation of pilings, berthing spaces, moorings, or floating docks beyond the repair and maintenance activities specified in this approval shall be submitted for a determination of coastal development permit requirements (i.e., a separate coastal development permit, amendment to this permit, or waiver).

IV. FINDINGS AND DECLARATIONS

A. 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 require consistent repair and maintenance. Such maintenance activities typically include the repair and replacement of harbor facilities and structures, and the periodic dredging of harbor areas to remove sand and sediments that accumulate in the nearshore environment, and maintain adequate depths for normal boating operations. These repair and maintenance activities are necessary to carry out Section 30234 of the Coastal Act, which calls for the protection and improvement of existing commercial fishing and recreational boating harbor space. Unlike other repair and maintenance activities which are exempt from coastal development permit requirements, Section 13253 of the California Coastal Commission's Administrative Regulations requires a coastal development permit for repair and maintenance activities in, adjacent to, and above coastal waters because they involve a risk of substantial adverse environmental impact.

In an effort to streamline the coastal development permit process for the routine repair and maintenance activities that are essential to harbor operations, the Commission has developed a "master" coastal development permit process. The purpose of the master permit is to establish parameters for harbor repair and maintenance activities that ensure such activities will not have a significant adverse impact on coastal resources and public access and recreation opportunities. Once such parameters are adopted by the Commission, the harbor district is responsible for notifying the Commission staff of specific repair and maintenance activities. Staff then confirms compliance with the parameters established by the Commission, and subsequently authorizes the project. This approach is being successfully utilized at Monterey Harbor, pursuant to Coastal Development Permit 3-96-089.

Another element of streamlining the permitting process for routine harbor repair and maintenance activities is interagency coordination. Towards this end, this permit has been structured to run concurrently with the U.S. Army Corps of Engineers (Corps) permit. By coordinating the timing of these permits, the necessary regulatory reviews can occur in a consolidated fashion. However, a maximum permit period of 5 years has been established, consistent with the Corps own 5 year cycle, to provide the Commission with an opportunity to review any new information which may warrant alteration of the parameters under which repair and maintenance activities have been authorized. At the end of the 5 year period, an extension to this approval may be accommodated through an amendment to this permit.

B. Project Description and Location

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). There are two primary components to the proposed project: renewal of the 5 year maintenance dredging and beach nourishment program previously approved by the Commission in 1993 (CDP no. 3-93-27); and, a long-term program to repair and maintain harbor structures and facilities. The general location of the specific repair and maintenance activities authorized by this permit is illustrated by Exhibit 2, with the specific locations illustrated by Exhibits 3-11. Areas to be dredged, and the locations of dredge spoils disposal, are shown by Exhibit 2.

The proposed maintenance dredging/beach nourishment program is generally the same program as the one approved by the Commission in 1993 (as amended to include PG&E beach as a disposal site), with an annual limit of 30,000 cubic yards of sand/sediment per year. However, there has been a slight increase in the areas to be dredged, as well as in the beach areas that would receive the dredged materials. Another change that has been incorporated into the proposed dredging operations include a sediment testing program, to ensure that the dredged materials are suitable for beach disposal. This sediment testing program will also analyze sediments in areas where piling installation will occur, to address potential impacts to marine resources and coastal water quality related to the turbidity caused by such activities.

The other primary component of the proposed 5 year operations and maintenance program is the repair and maintenance of harbor facilities and structures. As described in the coastal development permit application, the proposed repair and maintenance activities include:

Project 1 - Avila Beach Public Pier. The wooden timber and piling pier is approximately 1,600 feet long, with an average width of 20 feet and 60 feet wide at its terminus. The maintenance includes: repairing and replacing decking, stringers, caps, piling, fixed landings and stairs as necessary from regular wear, storm damage, and boat damage.

It is anticipated that pier structural repairs will be made with original type construction materials, although substitute materials may be used. Quantities used will be determined by the project at hand, not to exceed the existing pier footprint. Creosote treated piles shall be wrapped with plastic in order to prevent the introduction of wood preservatives into the marine environment. (See Exhibits 4 and 5).

Project 2 - Harbor District Trailer Boat Launch Floating Dock and Adjacent Seawalls. This facility is designed to launch, retrieve, and maintain small vessels. The trailer boat launch is a dual-rail crane facility which utilizes slings to lift boats from trailers into the water. The two docks are 10 x 94 feet and are constructed of wooden decking and stringers surrounding encapsulated floats. These are tethered to three reinforced concrete or steel pilings. The seawall is of reinforced concrete construction surrounded by rock rip rap revetment. Maintenance includes repairing and replacing floating dock components from wear and storm damage, repairing and replacing pilings from wear and storm damage, repairing the seawall from storm damage, and recovering and replacing any lost revetment rip rap after storm damage. It is anticipated that the trailer boat launch floating docks and seawall structural repairs will be made with original type construction materials, although substitute materials may be used. Quantities will be determined by the project at hand, not to exceed the existing footprint and specifications. (See Exhibits 6 and 7).

Project 3 - Harbor District Mobile Boat Hoist Pier, Dock, and Seawall. This facility is designed to launch and retrieve commercial fishing and recreational vessels. The hoist is a standard 60-ton capacity Travel Lift mobile boat hoist. The Hoist's pier is constructed of reinforced steel and concrete, and the headwall is constructed of reinforced concrete with a rip rap revetment. Maintenance includes routine and emergency damage repairs to the pier and pilings, seawall, seasonal floating dock, and surrounding revetment. It is anticipated that the mobile boat hoist pier, dock, and seawall structural repairs will be made with original type construction materials, although substitute materials may be used. Quantities used will be determined by the project at hand, not to exceed the existing footprint and specifications. (See Exhibits 6 and 8).

Project 4 - Harford Pier (Pier 3) Structures. The wooden timber and piling pier is approximately 1,600 feet long and approximately 120 feet wide at its terminus. The maintenance includes repairing and replacing decking, stringers, caps, pilings, stairs, and landings (floating and fixed docks) as necessary from regular wear, storm damage, vehicle damage, and boat damage. It is anticipated that pier structural repairs will be made with original type construction materials, although substitute materials may be used. Creosote piles will be wrapped in plastic to prevent the introduction of wood preservatives into the marine environment. Quantities used will be determined by the project at hand, not to exceed the existing footprint and specifications. No alterations to the historic qualities of the structure will be made. (See Exhibits 5 and 9).

Project 5 - All Floating Docks and Landings within the Colreg Line of Demarcation. The three floating docks are 10 x 20 foot public use wooden docks designed to facilitate in-water repairs on commercial and recreational vessels. The docks are constructed of wooden decking and are tethered to two-point moorings. Maintenance includes repairing and replacing floating dock components from wear, storm, and vessel damage and seasonal removal of docks during winter months to minimize storm damage. Moorings will be inspected and repaired as needed. It is anticipated that

dock repairs will be made with original type construction materials, although substitute materials may be used. The quantity of material used will be determined by the project at hand, not to exceed existing floating dock footprint and specifications. (See Exhibit 10).

Project 6 - Harford Land Area Parking Lot Rip Rap and Adjacent Seawall. The lot is constructed of asphalt paving over aggregate base material, and the adjacent seawall is of reinforced concrete construction with surrounding rock rip rap revetment. Maintenance includes the recovery and replacement of any lost revetment rip rap which may become necessary after storm, wave, or vehicle damage. It is anticipated that repairs will be made with original type construction materials, although substitute materials may be used. Quantities used will be determined by the project at hand, not to exceed the original footprint and specifications. (See Exhibit 11).

C. Marine Resources.

1. Coastal Act Policies:

Several Coastal Act sections protecting marine resources apply to the subject project, including:

Section 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.

Section 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.

Section 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.

Section 30233(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.

2. Analysis:

a. Protection of Marine Resources:

Coastal Act Sections 30230 and 30231 require that marine resources and the biological productivity of coastal waters be maintained. To carry out this objective, Section 30232 requires the containment of hazardous materials. Potential impacts to marine resources and the biological productivity of coastal waters posed by this project, and the measures required by the conditions of this permit to avoid such impacts, are described by the following table:

Potential Impacts	Required Mitigation Measures
Dredge spoils may contain levels of contamination that would adversely impact marine resources and coastal water quality if disposed of on beaches or in intertidal areas.	Special Condition 3 requires the testing of sediments in areas to be dredged in order to determine suitability for beach disposal. If dredge sediments are either chemically or physically unsuitable for beach nourishment, they must be disposed of in an upland location.
The disposal and grooming of dredge spoils on beach areas has the potential to adversely impact seasonal California grunion spawning events.	Special Condition 3 prohibits the disposal or grading of dredge spoils on beach areas when spawning grunion are present.
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.	Special Condition 2 requires Executive Director review and approval of construction operation plans for each element of the project. This will ensure that construction activities will be conducted in a manner which minimizes adverse impacts to the marine environment. In addition, Special Condition 5 prescribes specific procedure to ensure that construction materials and debris do not enter the marine environment.
The installation of piles and similar construction activities have 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 any contaminants contained in harbor sediments become more bioavailable when suspended	Special Condition 5 requires any construction activities that will disturb ocean sediments to be preceded by a sediment testing program. If significant contaminants are detected, methods to contain the sediments (or otherwise mitigate) must be proposed by the permittee and approved by both the Executive Director and Regional Water Quality Control

in the water column.	Board.
Potential Impacts (continued)	Required Mitigation Measures (continued)
The use of creosote treated wood products can impact coastal water quality and marine resources by leaching creosote, a toxic material, into the marine environment.	Special Condition 4 requires: compliance with the California Department of Fish and Game Guidelines for the use of plastic-wrapped, creosote treated pilings (attached as Exhibit 12); and, the implementation of a piling inspection and reporting program, to ensure that the integrity of the plastic wrapping is maintained. In addition, the recommended 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.
The pH of marine water becomes elevated if it comes in contact with uncured concrete. Elevated pH levels can be toxic to marine life.	Special Condition 6 specifies procedures for concrete work designed to eliminate the impacts of marine water coming into contact with uncured concrete.

c. 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, and 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 5 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 ocean waters;
- a floating containment boom be placed around all active portions of a construction site when ocean conditions allow, to prevent wood scraps or other floatable debris from entering 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 insure that the work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills.

In addition, Special Condition 5 requires that construction contracts contain appropriate penalty provisions, sufficient to offset the cost of retrieving or clean up of foreign materials not properly contained.

The proposed project also has the potential to impact marine resources and coastal water quality through the use of creosote treated pilings, which have been shown to contribute polycyclic aromatic hydrocarbons (PAHs) to the marine environment, at levels that may be toxic to biological resources, as discussed in more detail, below. The toxicity of creosote to marine resources is not surprising, given the fact that the very purpose of creosote is to discourage organisms that may impair the wood product's integrity, such as wood borers, from coming into contact with the wood product.

The creosote that is used to treat and preserve wood products is a pesticide derived from coal tar that contains over 160 detectable hydrocarbon compounds. It is a hydrophobic, or relatively insoluble compound, and is therefore used in marine applications because it will not wash away. However, scientific studies have demonstrated that creosote is partially soluble, and mobile in aquatic environments. Even the small amounts of creosote constituents that dissolve and mobilize in water over time can have adverse affects on marine resources. Toxicity studies undertaken by Geiger and Buikema (1982) revealed that the amount of creosote which dissolves or mobilizes in water, when diluted to a 33:1 ratio, would kill 50% of the aquatic invertebrates exposed, with most deaths occurring in the first 8-24 hours (in this study, *Daphnia pulex* was used). This study also identified that non-lethal concentrations of creosote adversely affected reproductive success of the test organisms.

The fate of the PAHs that enter the marine environment from creosote treated products is a complex process dependent upon numerous variables. Exhibit 14 (attached) provides a simplified representation of the physical, chemical and biological processes that affect the fate of petroleum products (which PAHs are considered) in the marine environment. Most researchers agree that the heavier PAHs released from creosote treated products, such as benzo[a]pyrene, absorb onto the sediment particles and become a part of the hydrosol. While some of the PAHs can be metabolized by bacteria in aerobic conditions, the remainder can become persistent compounds of benthic sediments.

Adverse impacts to marine resources resulting from the presence of high PAHs levels on and near creosote pilings been documented by numerous scientific studies. A five year study recently conducted by researchers from the U.C. Davis Bodega Marine Lab has found that virtually all of the herring eggs collected from creosote pilings near Fort Baker in the San Francisco Bay failed to develop properly and died. This study also documented adverse impacts to herring eggs spawned in close proximity to creosote pilings; laboratory analyses showed affects on eggs within 1 to 2 inches of creosote, although it is unknown how far the effects of creosote may spread under natural conditions. Other scientific studies documenting the toxic affects of creosote on marine resources include:

- Sved, et al (1997): This study compared the toxic affects of high molecular weight PAHs and low molecular weight PAHs found in creosote on fish exposed to creosote contaminated sediments. Fish exposed to high weight PAHs experienced mortality, epidermal lesions, and fin erosion. While no mortality or fin erosion was observed in fish

exposed to low weight PAHs, they did develop lesions in areas surrounding the mouth, nares, and opercula.

- Kennedy, et al (1989): This study analyzed the influence of temperature on the uptake of benzo[a]pyrene (BaP, a high weight PAH found in creosote) by the Gulf toadfish (*Opsanus beta*). This study found that the uptake of BaP is proportional to the concentration of BaP in water, and is modulated by temperature-induced changes in respiration rate or convection volume. However, BaP was detected in all tissues examined, with the highest levels in the bile, the liver, the kidney and the gills.
- Swatz, et al (1988): This study evaluated the acute toxicity of sediments from sites in Eagle Harbor, Washington, which contain high levels of PAH compounds found in creosote. PAH contamination in this area was correlated with a high prevalence of hepatic lesions in English sole (*Parophrys vetulus*) as well as in other demersal fish and benthic invertebrates by other studies referenced by this report.
- Spies, et al (1985): This study found a variety of liver disorders in Starry flounder (*Platichthys stellatus*) collected from areas of the San Francisco and San Pablo Bays with extensive port and wharf facilities. Of all sampling locations, Berkeley had the highest concentrations of carcinogenic PAHs (such as BaP), which also correlated to the greatest extent of liver damage observed in fish.
- Dunn and Fee (1979): This study found a concentration of BaP in the tail tissue of lobsters held in enclosures of creosote coated timbers for up to 3 months. These concentrations exceeded the level that could be safely consumed by humans.
- Dunn and Young (1976): This study found that creosote wharfs represent a source of contamination to aquatic shellfish; mussels sampled from creosote pilings along the Southern California Coast contained high levels of BaP.
- Dunn and Stich (1975): This study determined that mussels in the immediate vicinity of a powerboat marina in Vancouver, British Columbia were heavily contaminated with BaP. The highest level of BaP contamination were found in mussels collected from creosote treated pilings. Fazio (1971), and Caymann and Kuratsume (1957) found similar impacts to oysters collected from Galveston Bay and Norfolk, Virginia, respectively.

Notwithstanding the above studies, a report prepared by Dr. Kenneth Brooks for the Western Wood Preservers Institute contends that if produced and used appropriately, creosote materials will not, in the majority of applications, result in substantial adverse affects to fish and wildlife. This report includes a review of existing literature pertaining to creosote use, and assesses the environmental risks associated with the release of PAH from creosote treated wood products. It concludes that the use of creosote treated wood products in aquatic environments pose environmental risks only when a large number of pilings will be placed in a body of water with extremely low flows and/or the sediments are oxygen deficient. This report also identifies that the implementation of *Best Management Practices for the Use of Treated Wood in Aquatic Environments*, developed by the Western Wood Preservers Institute and the Canadian Institute of Treated Wood, will further reduce the environmental risks associated with the use of conventionally treated wood products, upon which this risk assessment was based.

Nevertheless, there is a strong body of scientific literature which, contrary to the conclusions of Dr. Brooks, document that the use of creosote treated wood products in a variety of aquatic environments can have toxic affects on various marine resources. As a result, the use of creosote treated wood products has been subject to regulation by the California Department of Fish and Game under Section 5650 of the California Fish and Game Code, which states in part:

(a) Except as provided in subdivision (b), it is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this state any of the following:

(1) Any petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum, or carbonaceous material or substance.

(2) Any refuse, liquid or solid, from any refinery, gas house, tannery, distillery, chemical works, mill or factory of any kind.

(3) Any sawdust, shavings, slabs, or edgings.

(4) Any factory refuse, lime, or slag.

(5) Any cocculus indicus.

(6) Any substance or material deleterious to fish, plant life, or bird life.

(b) This section does not apply to a discharge or release that is expressly authorized pursuant to, and in compliance with, the terms and conditions of a waste discharge requirement pursuant to Section 13263 of the Water Code or a waiver issued pursuant to subdivision (a) of Section 13269 of the Water Code issued by the State Water Resources Control Board or a regional water quality control board after a public hearing, or that is expressly authorized pursuant to, or in compliance with, the terms and conditions of a federal permit for which the State Water Resources Control Board or a regional water quality control board has, after public hearing, issued a water quality certification pursuant to Section 13160 of the Water Code. This section does not confer additional authority on the State Water Resources Control Board, a regional water quality control board, or any other entity.

Under this provision of law, the California Department of Fish and Game, in 1993, released a guidance letter that was updated in 1994, which prohibited the Department from approving the use of creosote treated wood products in State waters. To date, this guidance appears to have been effective in curbing the use of creosote treated wood products in State waters. However, on March 26, 1996, the Department of Fish and Game sent a letter to the Port San Luis Harbor Manager that acknowledged the difficulties that the Department's position against the use of creosote created for users such as the Port San Luis Harbor District, and allowed for the use of plastic wrapped creosote treated wood products in limited situations. (This letter is attached as Exhibit 12, while other correspondence from the Department of Fish and Game regarding the use of creosote treated products, including the 1993 and 1994 guidance letters, are attached as Exhibit 13).

In response to the subject application, and in light of this new guidance provided by the Department of Fish and Game, it is now up to the Coastal Commission to determine whether or not the use of plastic wrapped creosote treated wood products is consistent with the Coastal Act provisions protecting marine resources, environmentally sensitive habitats, and coastal water quality previously identified. To date, the Commission is unaware of any scientific investigations that have specifically analyzed the potential impacts associated with the use of plastic wrapped creosote treated pilings on marine resources and/or coastal water quality.

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 polyethylene 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 a watertight seal. 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.

The technology used to manufacture plastic pile covers has advanced significantly since polyvinyl chloride (PVC) was first used to 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. These are a few examples of the instances in which plastic wrapping has been used along the California Coast to preserve the integrity of wooden marine structures and boating facilities.

Durability of the pile covers directly relate to their ability to prevent the release of PAHs from the interior creosote treated pile into the marine environment; their ability to maintain a watertight seal is essential in preventing creosote constituents from becoming mobile in the water. This is reflected in the Department of Fish and Game's guidance on the use of these materials, which specifies that the type of plastic wrapping to be used must be expected to maintain its integrity for at least ten years. This guidance also requires that any holes or leaks that may develop in the plastic material must be repaired or replaced in a timely manner. Other provisions contained in the Department's guidance letter related to the need to maintain a watertight seal include requirements that measures be taken to: prevent damage to the plastic wrap from boat use (e.g., installation of rubber strips or bumpers); prevent creosote from dripping over the top of plastic wrapping (e.g., wrapping pilings to the top or installing collars to prevent dripping); and ensure that the plastic wrapping is sealed at all joints to prevent leakage.

A similar concern has been expressed by the Western Wood Preservers Institute. In a letter to Commission staff dated February 11, 1998, the Executive Director of this organization states: "In environments where creosote is appropriate, the amount of creosote and PAHs, (the compounds of concern) moving from the material will come into balance with the microorganisms which consume and bio-degrade the discharge. Environmental concerns only exist where there are major amounts of PAH which exceed the capacity of the system to process it. In theory, the plastic wrapping will confine the creosote which moves to the surface over time. However, when at some future date that wrap is physically breached, a relatively large amount of creosote could move to the local environment in a short time with the potential of an adverse affect". (Complete letter attached as Exhibit 15).

Based on the importance of maintaining a watertight seal, the recommended special conditions not only require compliance with the Department of Fish and Game's guidance, but also

require the implementation of a periodic inspection and reporting program. Where plastic wrapped creosote treated 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 plastic wrapped creosote treated piles are appropriately installed and maintained, in a manner that will prevent the release of PAHs in 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.

If, during the 5 year permit period, new or better scientific information is developed which indicates that environmentally less damaging materials or methods are available for piling replacement, and are feasible to implement, Special Condition 4.d. requires the permittee to revise procedures or use alternative materials consistent with the new information, after consultation with the Executive Director. It is noted that such revisions may require an amendment to this permit.

e. 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. As previously discussed, the subject project has the potential to adversely affect water quality through the discharge of harmful materials and disturbance of contaminated sediments. Therefore, special conditions have been attached to this permit which will minimize, to the greatest extent feasible, the impact of construction operations on water quality and marine resources.

3. 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 this permit that 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 plastic wrapped creosote treated timber piles. Based upon the body of scientific literature documenting the adverse affects of creosote treated wood products on marine resources, and considering the restrictions placed on its use by the Department of Fish and Game, it is clear that its use conflicts with Coastal Act Policies 30230, 30231, 30232, and 30240(b) when located within or adjacent to an environmentally sensitive habitat. In most instances, there are environmentally superior materials that can be used in lieu of creosote treated wood products, such as reinforced plastic, steel, concrete, or arsenical treated wood. Therefore, the use of creosote treated products in the marine environment must be carefully regulated, and preferably phased out, as new, less environmentally products are developed.

However, there may be instances when the use of alternative materials are not feasible, or would create extreme hardships, in accomplishing the Coastal Act objective of maintaining boating facilities. The repair and maintenance of existing wooden pier structures is an example of such an instance; the use of alternative materials may not only be more expensive, but may jeopardize the structural integrity of these facilities. In cases such as these, it is appropriate to allow for the use of creosote treated wood products where provisions to ensure

that the impact of such projects is avoided and or minimized to the greatest degree feasible. Such approvals should be on an interim basis to allow for the replacement of creosote treated materials with environmentally superior products should such products become available and feasible to implement.

The special conditions attached to this permit accomplish these objectives. With these conditions, the project is consistent with Coastal Act provisions protecting marine resources, coastal water quality, and environmentally sensitive habitats. The Commission will have an opportunity to re-evaluate the potential impacts to marine resources and coastal water quality associated with the use of plastic wrapped creosote treated pilings, and the effectiveness of permit requirements in addressing these potential impacts, at the conclusion of the five year permit period.

D. Public Access and Recreation

Coastal Act Section 30220 protects coastal areas for water oriented recreational activities. Section 30252 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. In addition, the proposed maintenance dredging program will help nourish the sand supply of local beaches, thereby enhancing coastal recreation opportunities. As previously discussed, the disposal of dredge spoils on beach areas can only take place once the sediments being dredged have been adequately analyzed and determined to be physically and chemically suitable for beach nourishment. This will not only prevent adverse impacts on marine resources and coastal water quality, but will ensure that such activities do not impede coastal access and recreation opportunities, consistent with Sections 30220 and 30252.

The proposed repair and maintenance activities do, however, have the potential to temporarily disrupt coastal access and recreation opportunities during construction operations and during the disposal and grading of dredge spoils on beaches. 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. In addition, Special Condition 4 prohibits the disposal and grading of dredge spoils on weekends, and identifies that spoils disposal and beach grooming shall not preclude, or significantly impair, public access and recreation.

With this condition, the project is consistent with the public access and recreation policies of the Coastal Act.

E. Commercial Fishing and Boating

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

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT

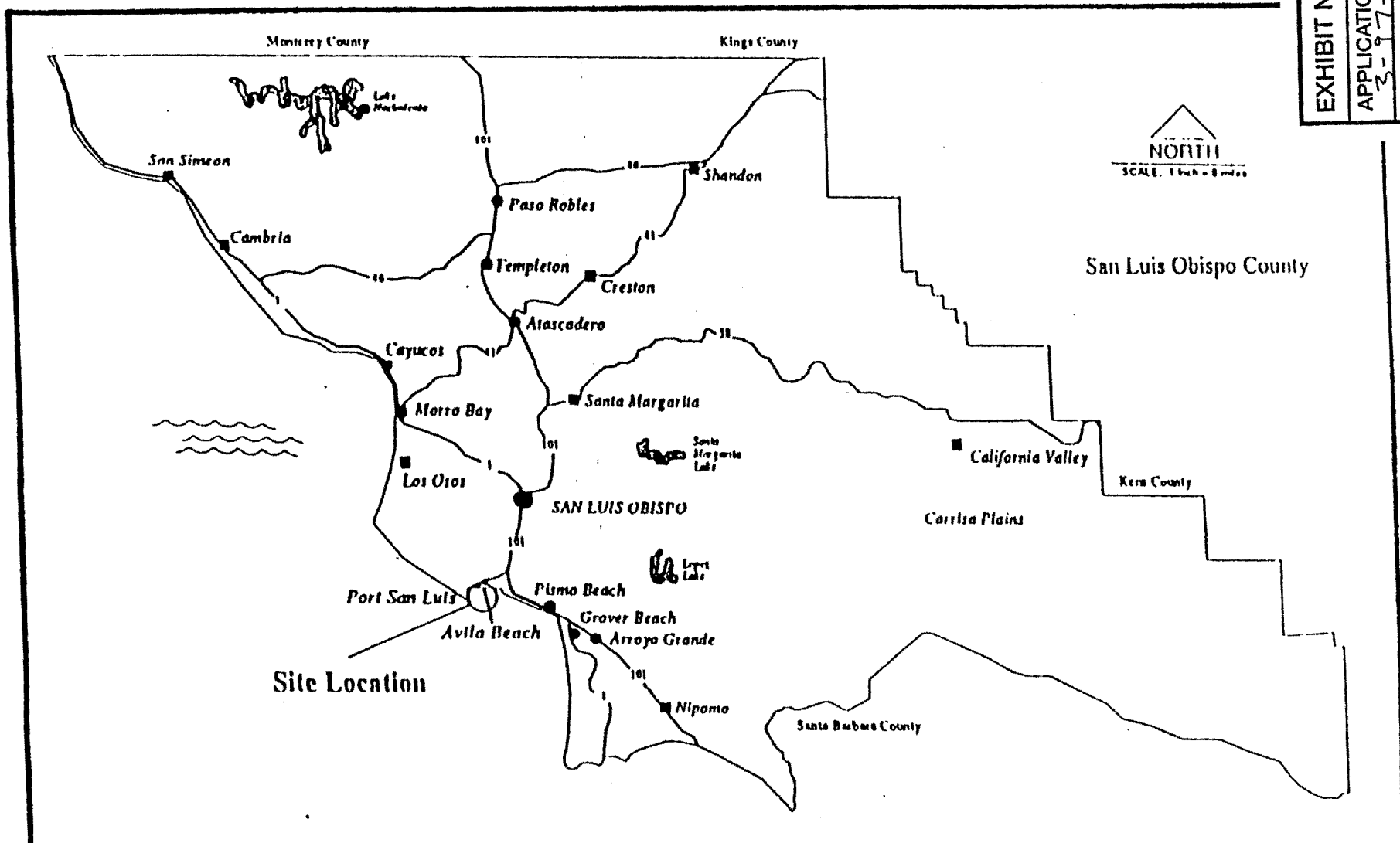
Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be

consistent with the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) 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 impact which the project may have on the environment.

In response to the environmental review requirements of CEQA, the Port San Luis Harbor District determined that the project qualifies for a categorical exemption under CEQA. During the course of coastal development permit review, the Commission identified mitigation measures necessary to protect marine resources and coastal water quality. These measures are required to be implemented by the Special Conditions of this permit. With these conditions, the project will not have a significant impact on the environment within the meaning of CEQA.

Flow

EXHIBIT NO. 1
APPLICATION NO.
3-97-078
Regional
Location



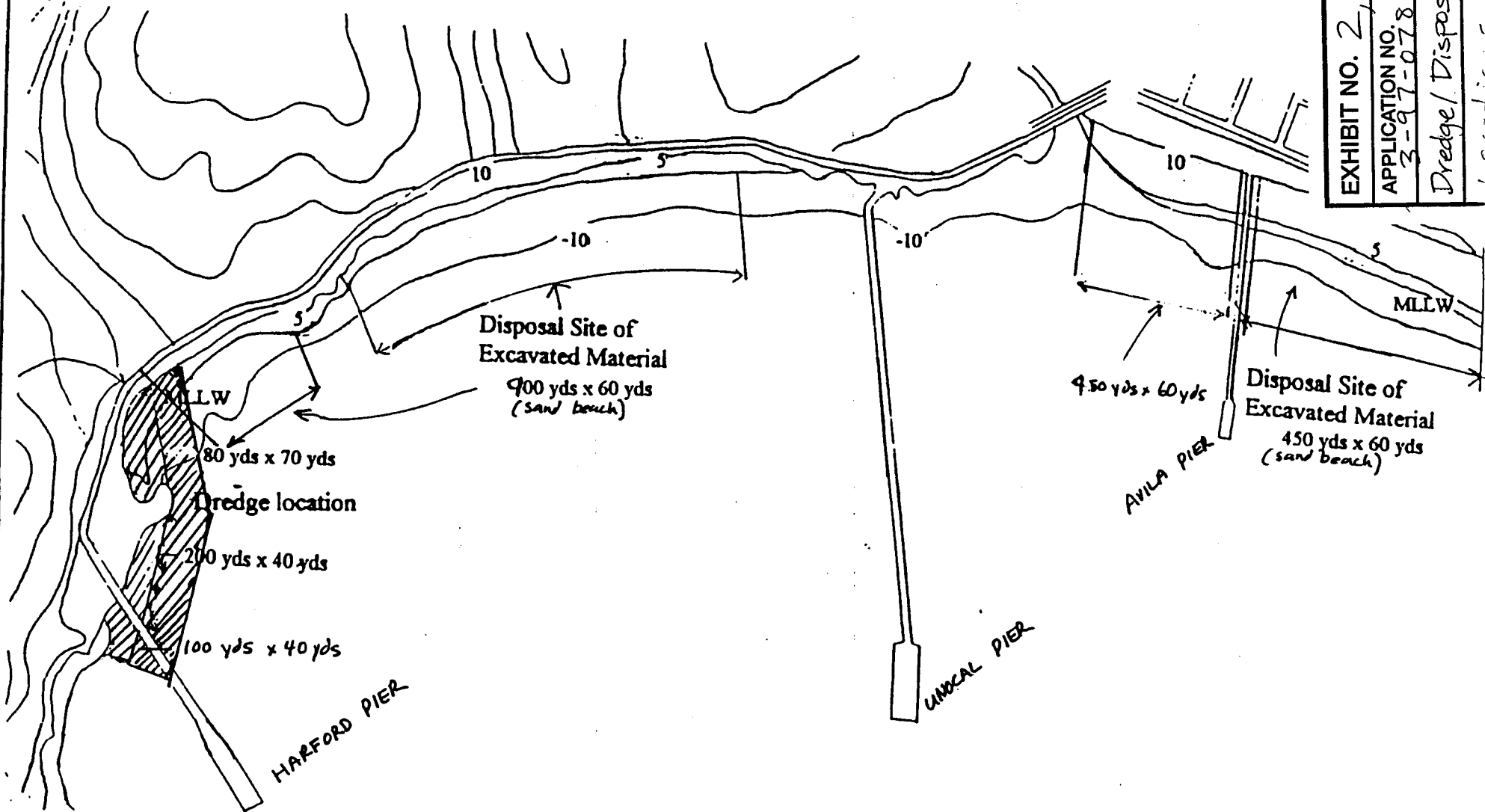
Site Location

County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: San Luis Obispo County Project/Site Location	Sheet Number: S-1
Water Body: San Luis Obispo Bay	Date: June 20, 1997		

EXHIBIT NO. 2, p. 1

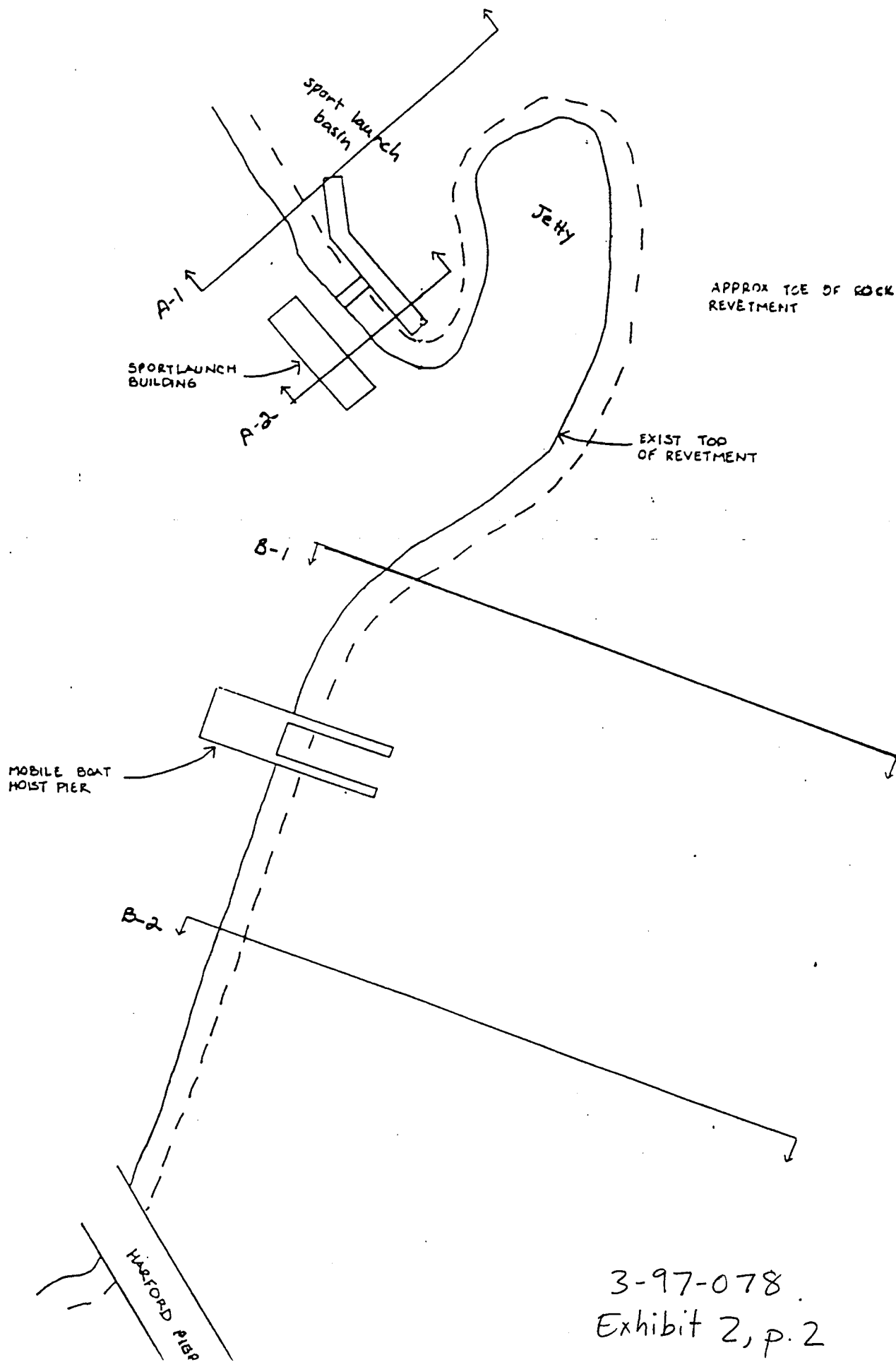
APPLICATION NO.
3-97-078

Dredge/Disposal

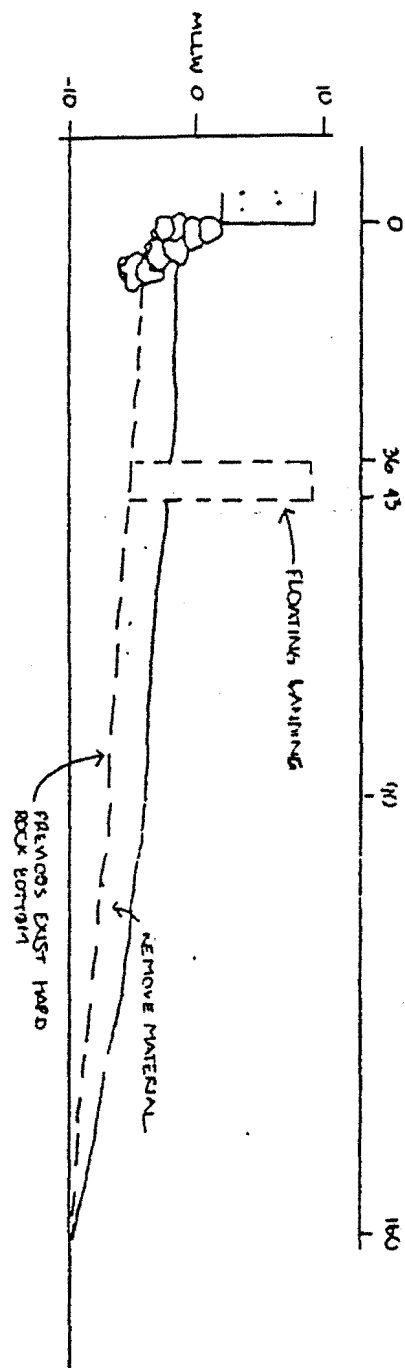


CONTOUR MAP

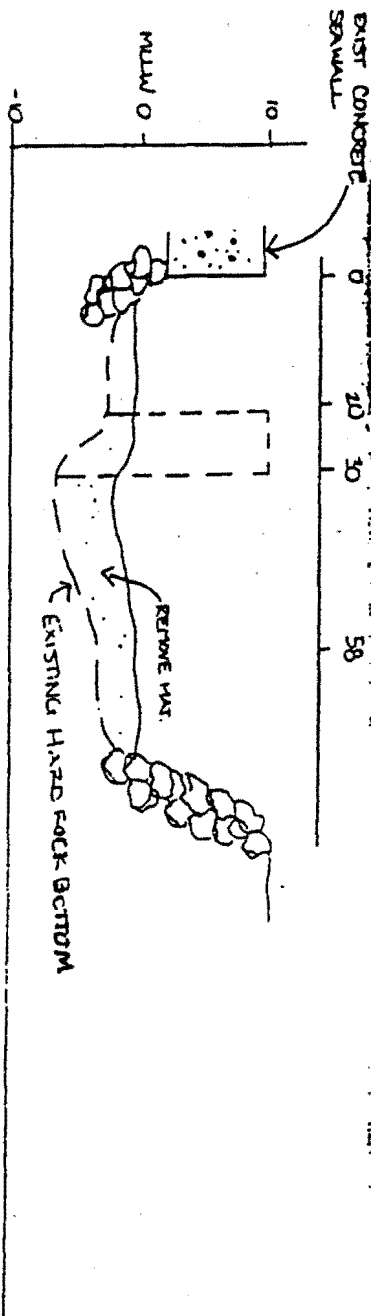
Dredge Area Section Diagrams



3-97-078
Exhibit 2, p. 2

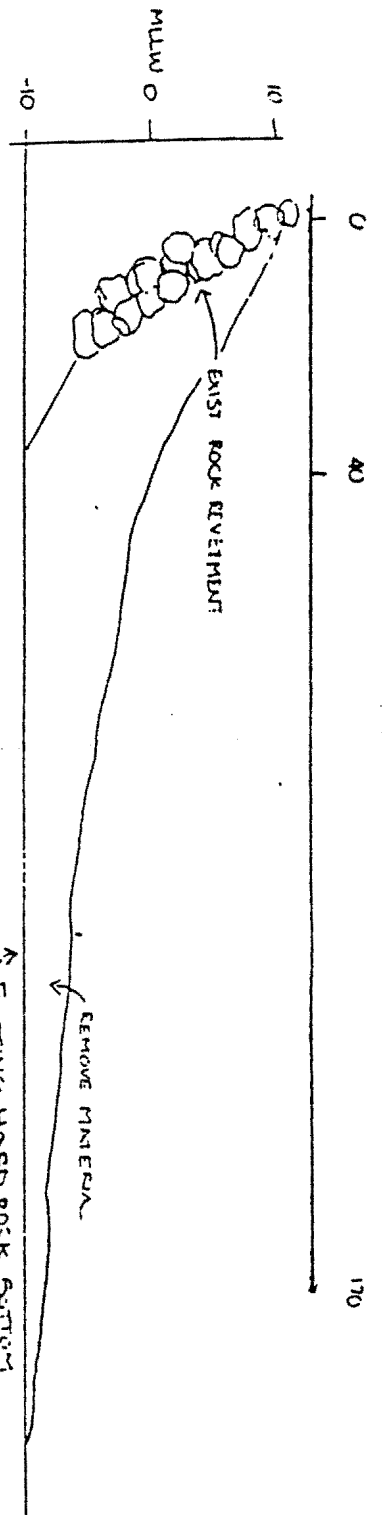


A-1

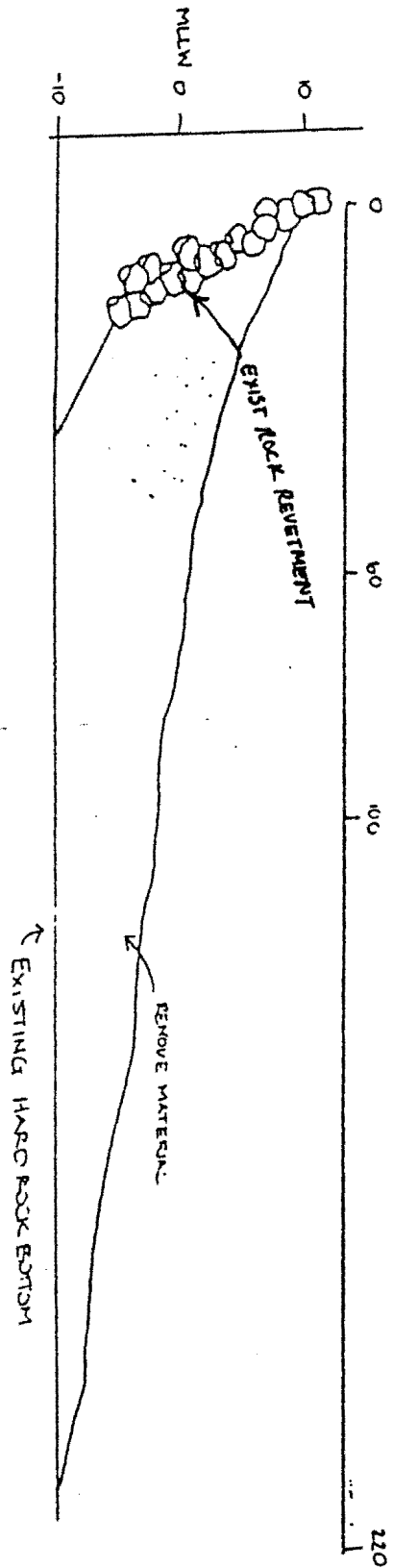


A-2

Dredge Area Section Diagrams

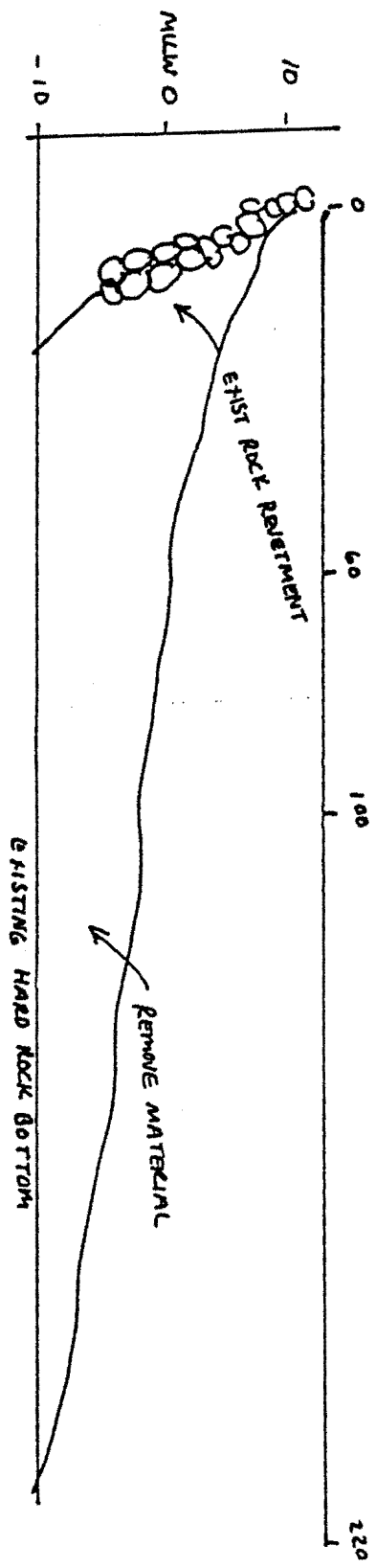
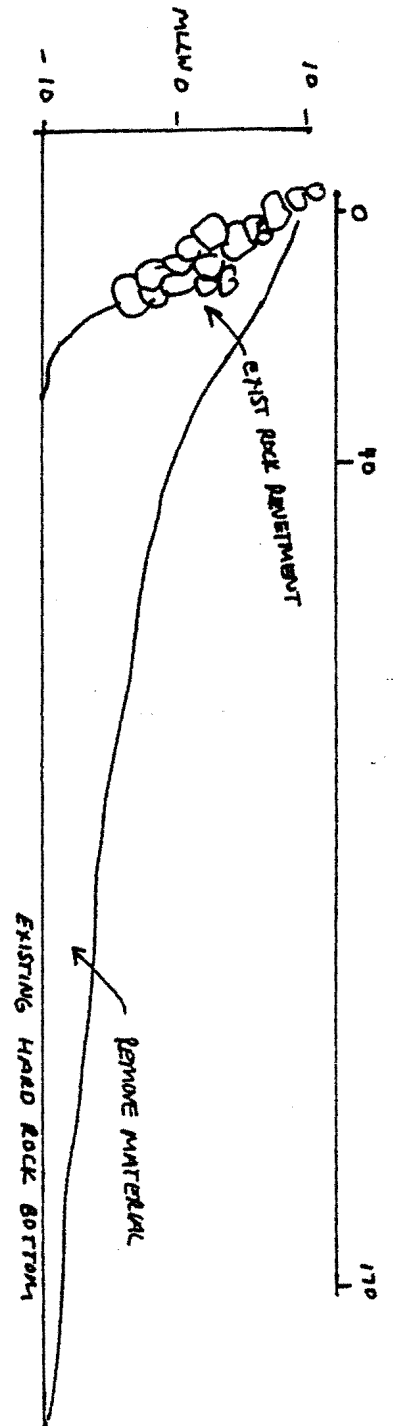


B-1



B-2

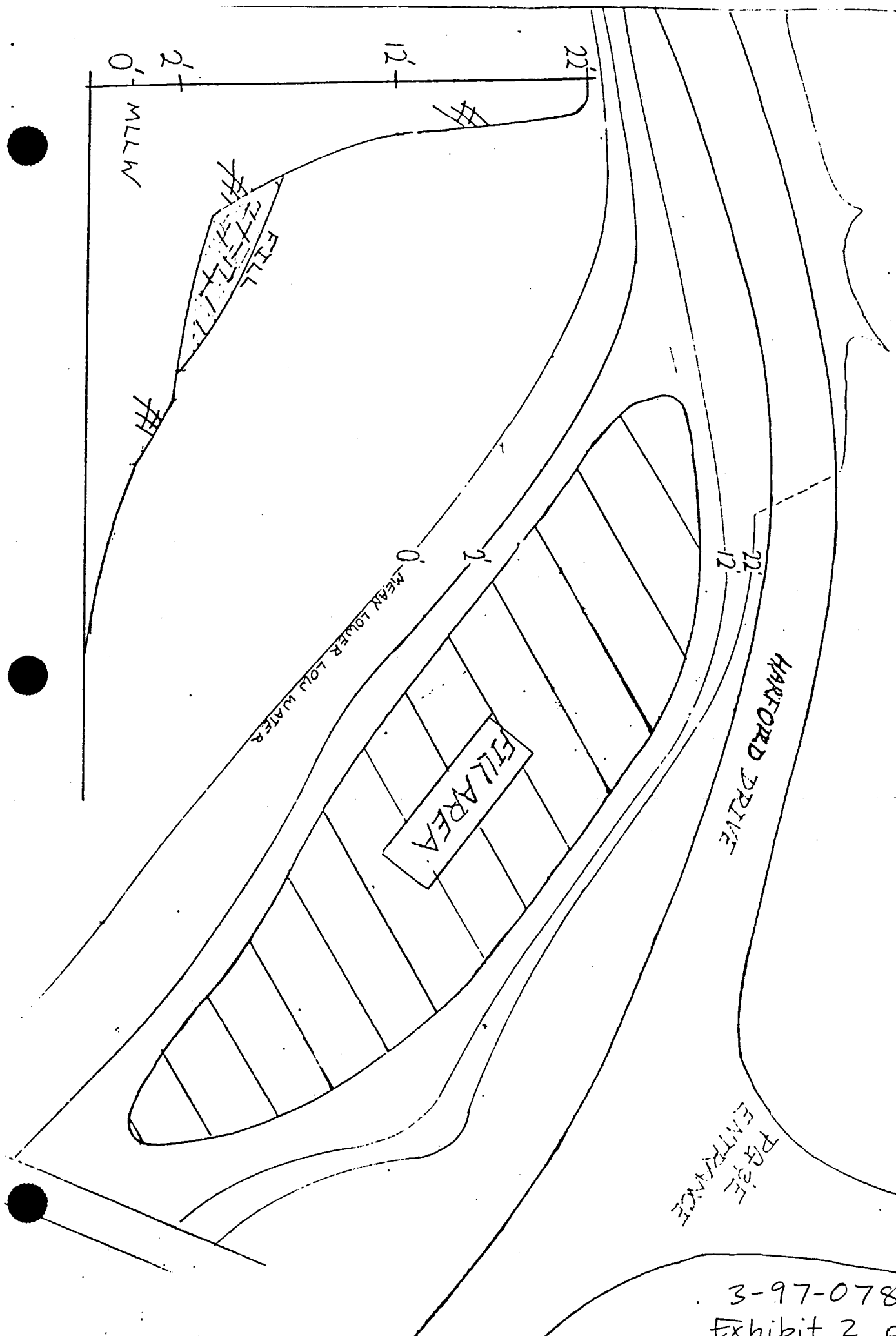
Dredge Area Section Diagrams



B-3

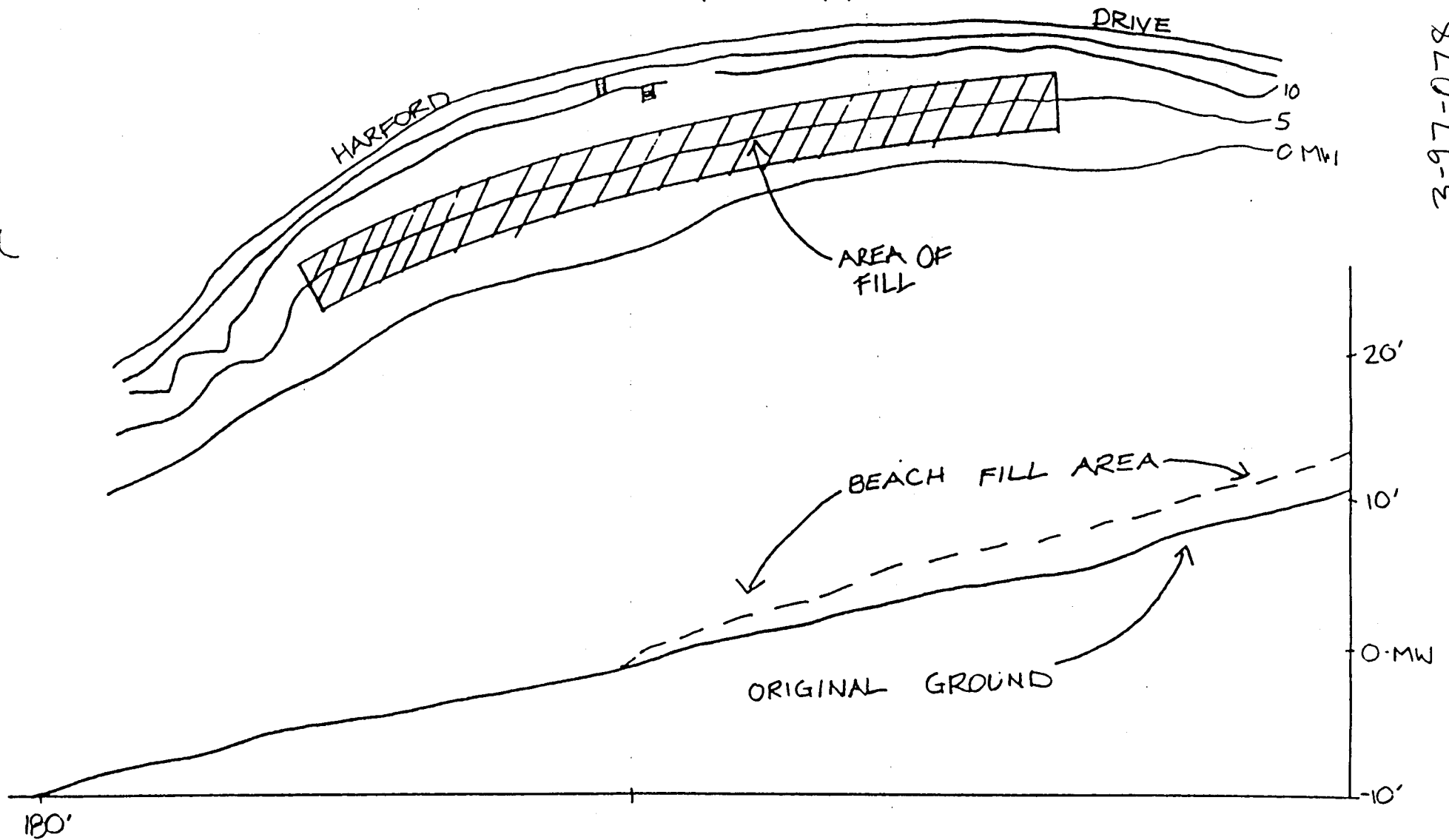
DREDGE AREA SECTION DIAGRAMS

PORT OF OCEXITY FILL AREA



FILL AREA - OLDE PORT BEACH

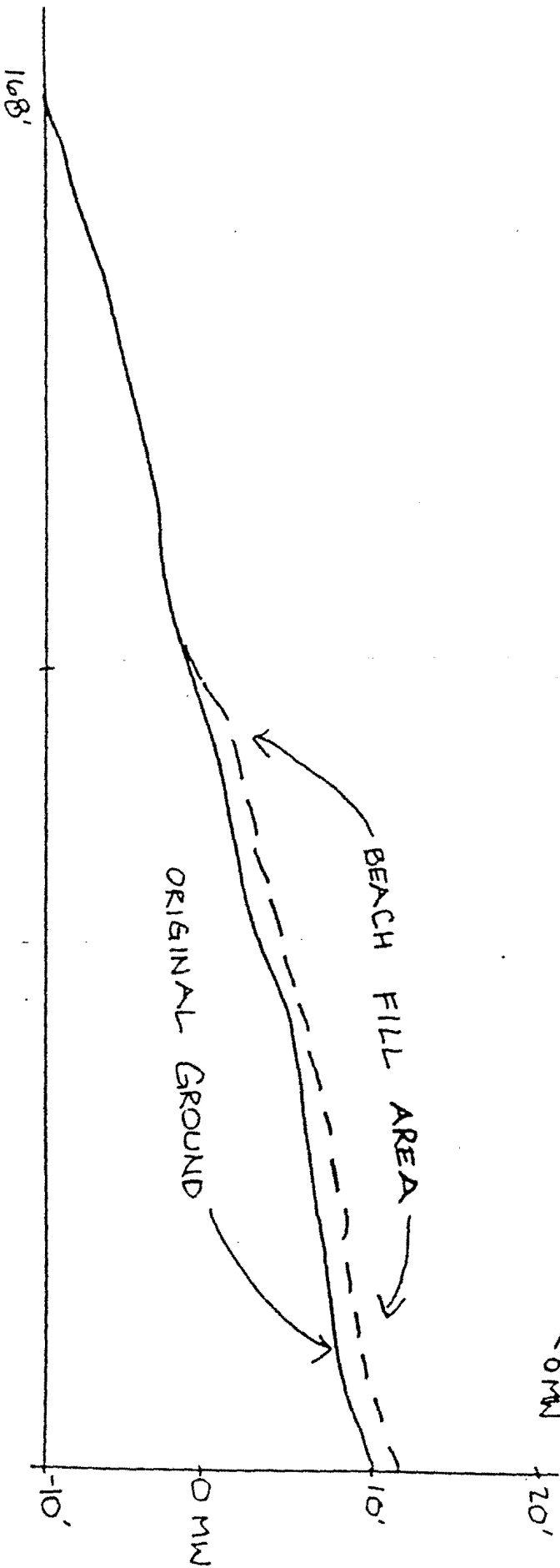
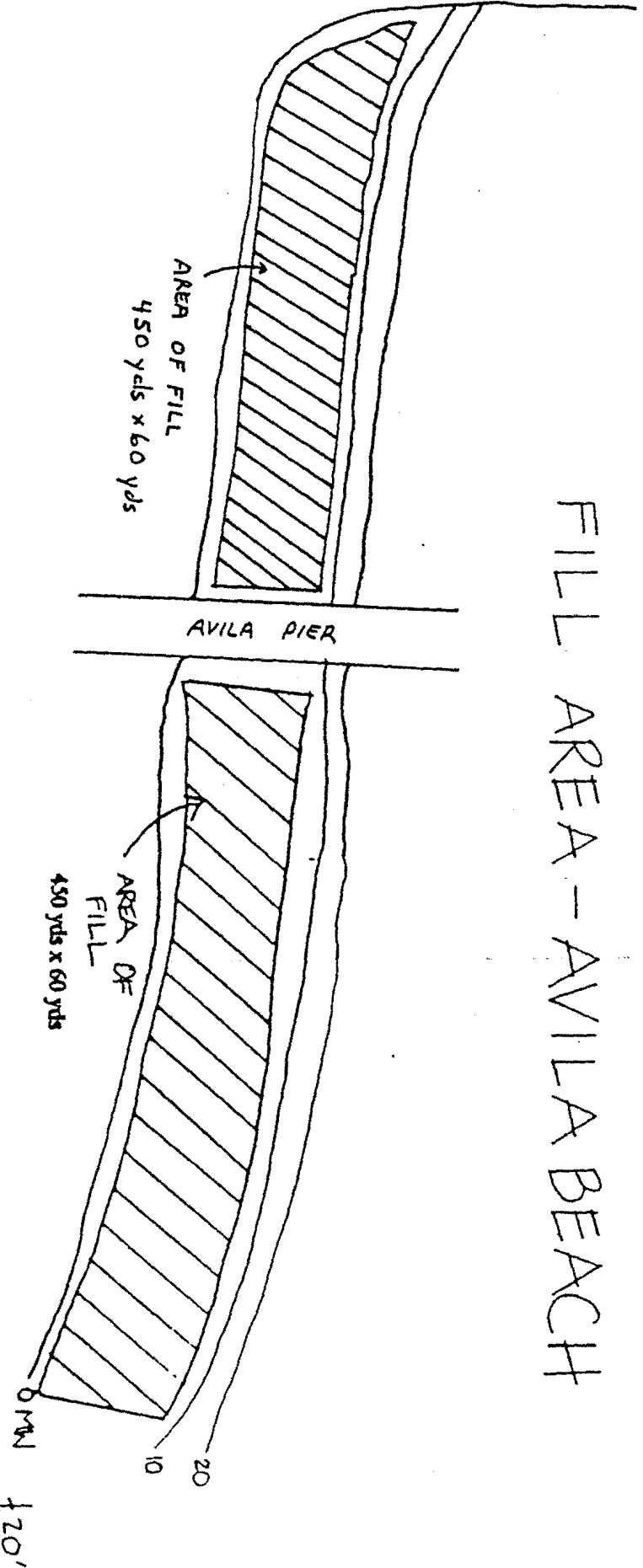
3-97-078
Exhibit 2, P. 7



SECTION
H 1"=20' V 1"=10'

Fill Area Section Diagrams

FILL AREA - AVILA BEACH



SECTION
H 1"=20' V 1"=10'

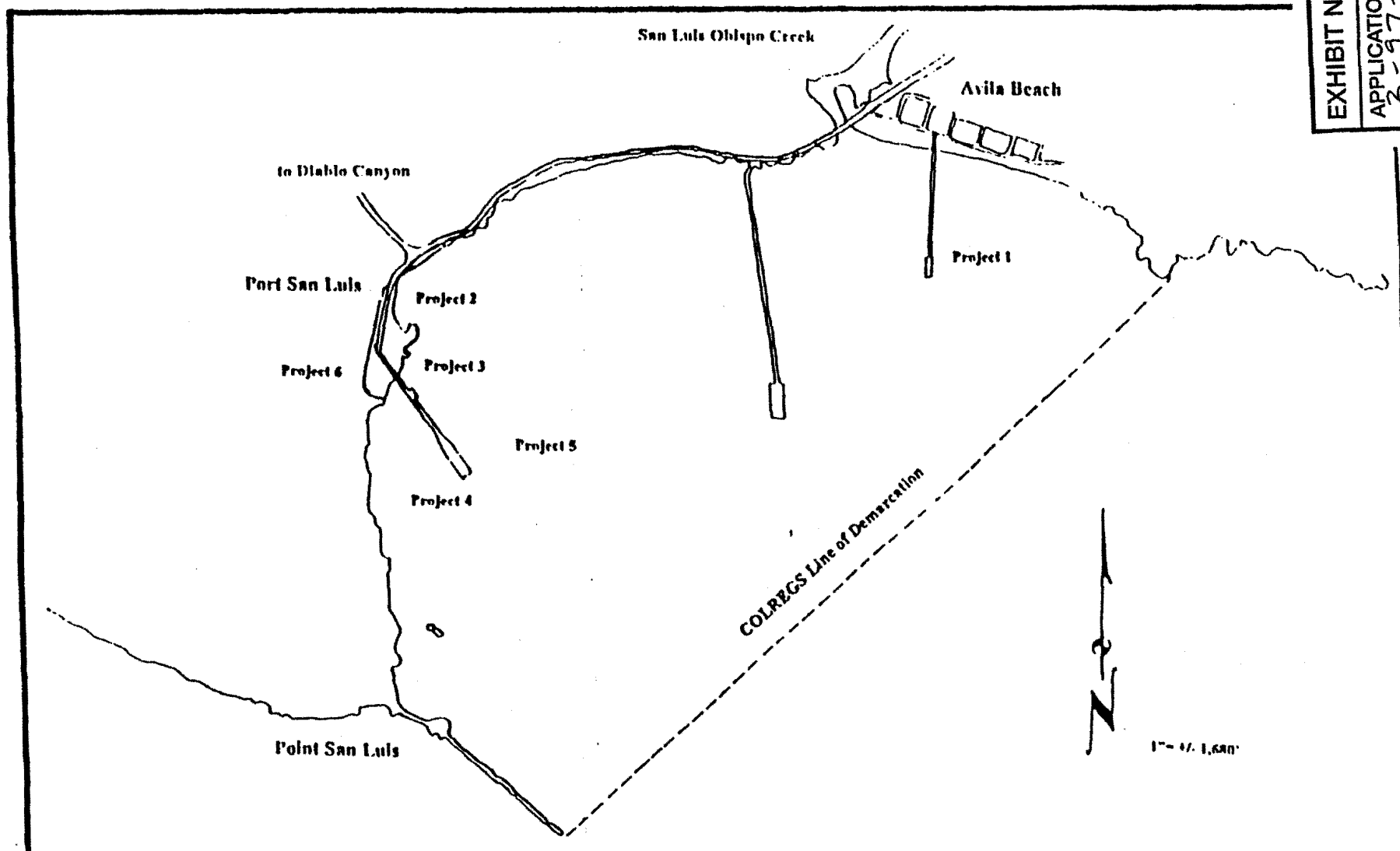
Fill Area Section Diagrams

3-97-078
E.L.H. 17 - 0

EXHIBIT NO. 3

APPLICATION NO.
3-97-078

Location of Repair
and Maintenance



County:
San Luis Obispo County

Agency:
Port San Luis Harbor District

Title:
Port San Luis Harbor District
Project Zones

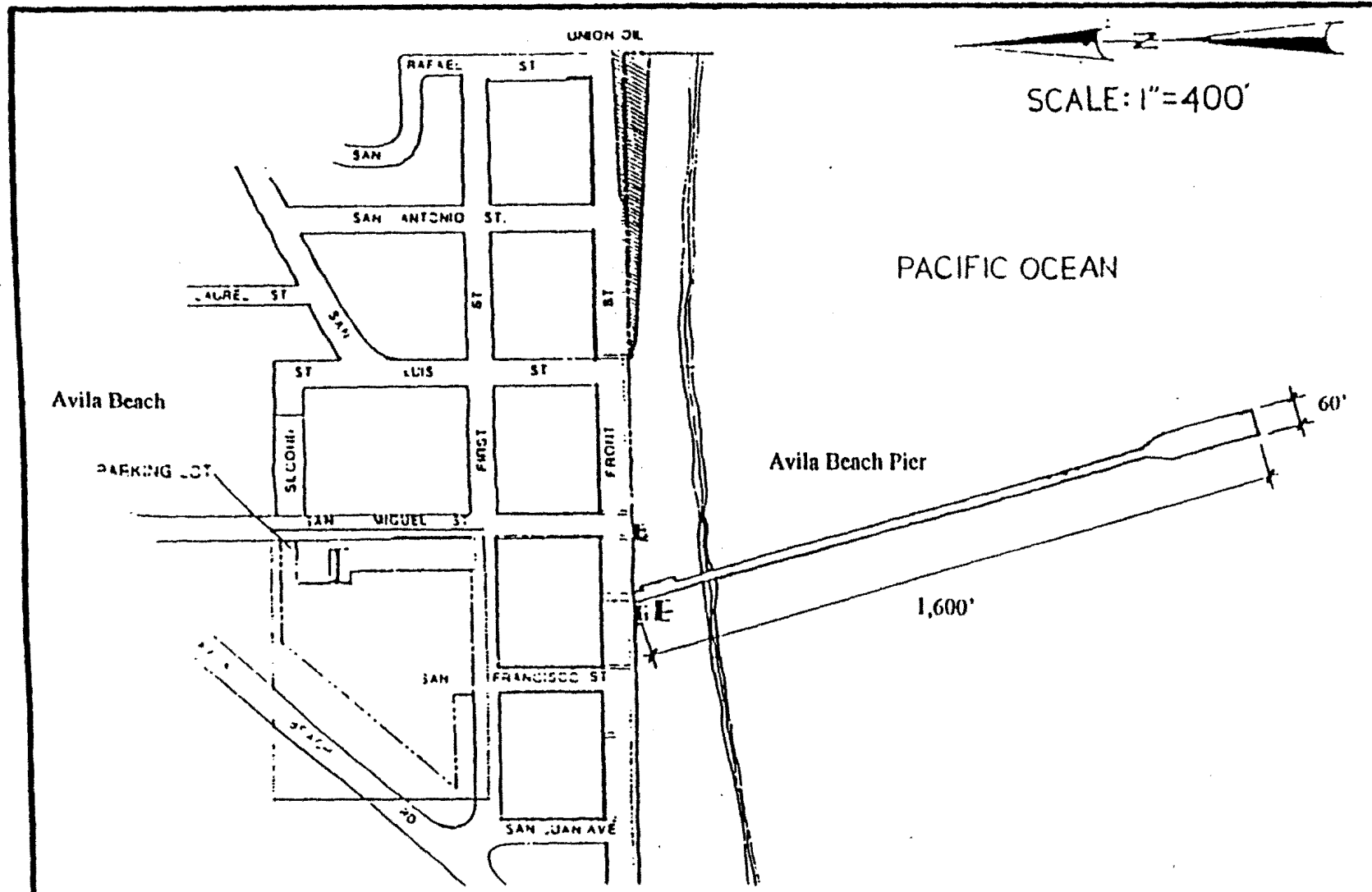
Sheet Number:

Water Body:
San Luis Obispo Bay

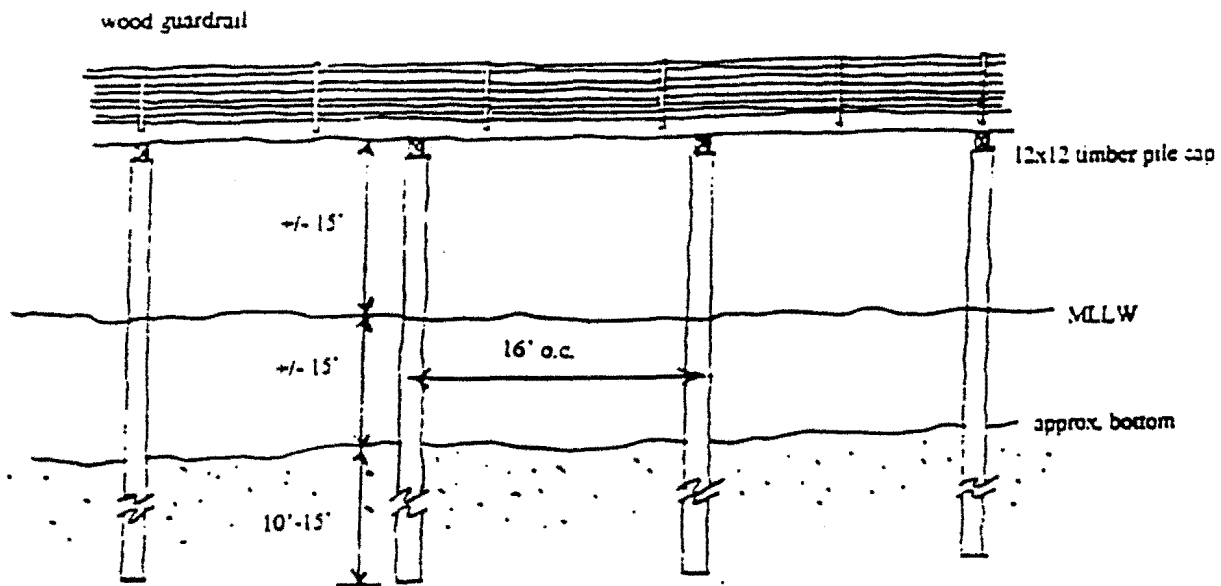
Date:
June 20, 1997

S-2

EXHIBIT NO. 4
APPLICATION NO. 3-97-078
Project 1: Avila Beach Pier Repairs



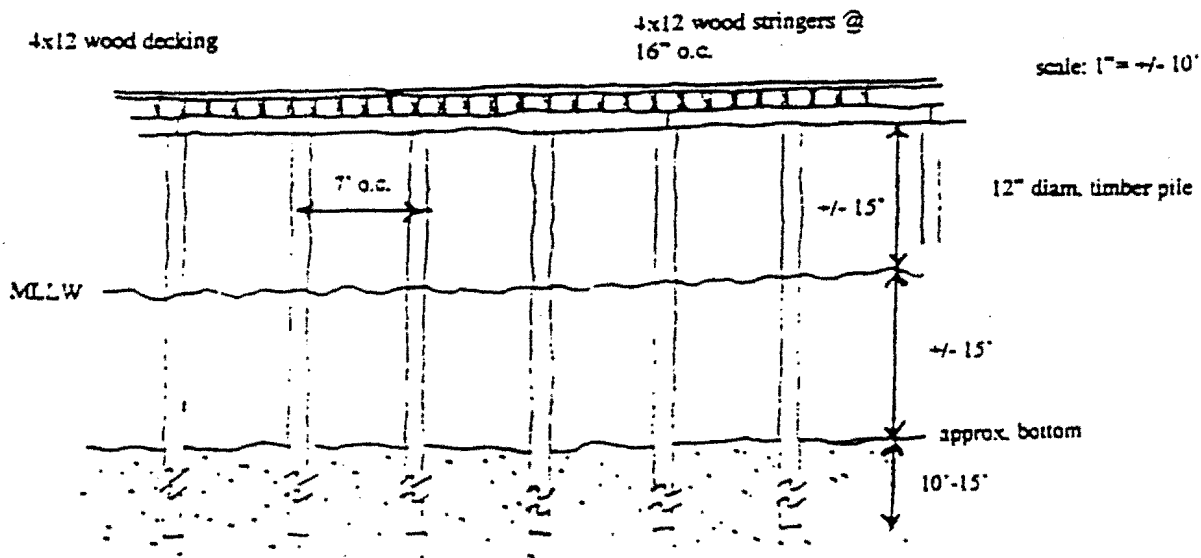
County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Project 1 Avila Beach Public Pier	Sheet Number: P-1a
Water Body: San Luis Obispo Bay	Date: June 20, 1997		



Typical Longitudinal Cross-Section of
Harford and Avila Beach Piers

all hardware hot-dip
galvanized

all timber chemical
and pressure treated

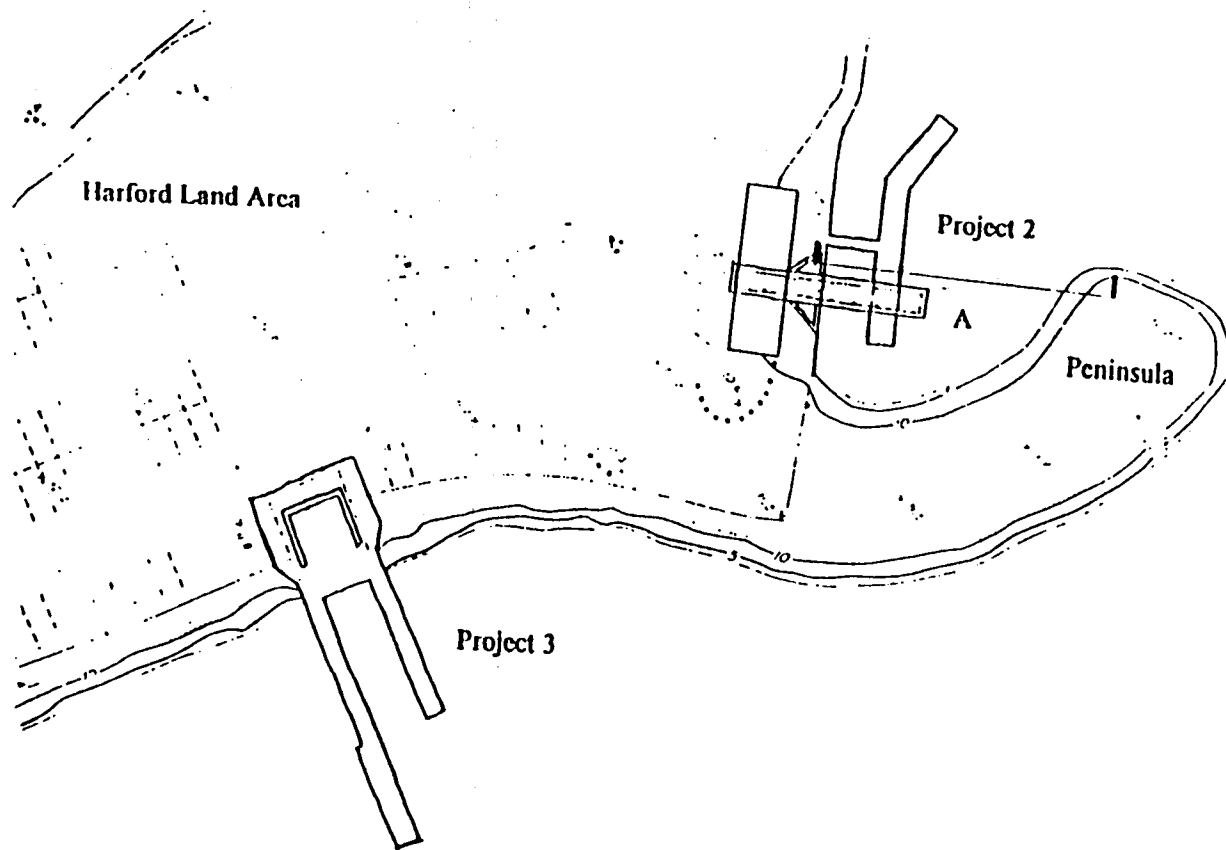


Typical Latitudinal Cross-Section of
Harford and Avila Beach Piers

County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Projects 1 & 4 Harford and Avila Beach Pier Typical Construction
Water Body: San Luis Obispo Bay	Date: June 20, 1997	

EXHIBIT NO. 5
APPLICATION NO. 3-97-078
Projects 1+4: repair of Harford and Avila Beach Piers - typical construction

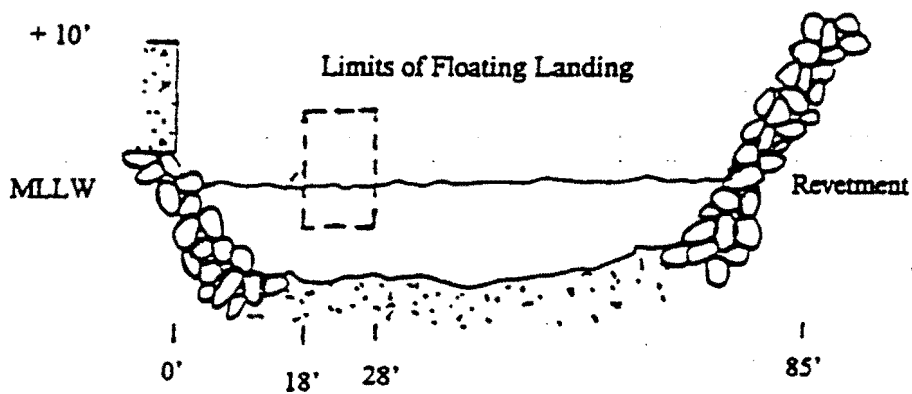
EXHIBIT NO. 6
APPLICATION NO. 3-97-078
Projects 2 & 3



scale: 1" = 80'

County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Projects 2 & 3 Trailer Boat Launch Floating Dock, Mobile Boat Hoist Pier, and adjacent seawalls	Sheet Number: P-2a P-3a
Water Body: San Luis Obispo Bay	Date: June 20, 1997		

Section A



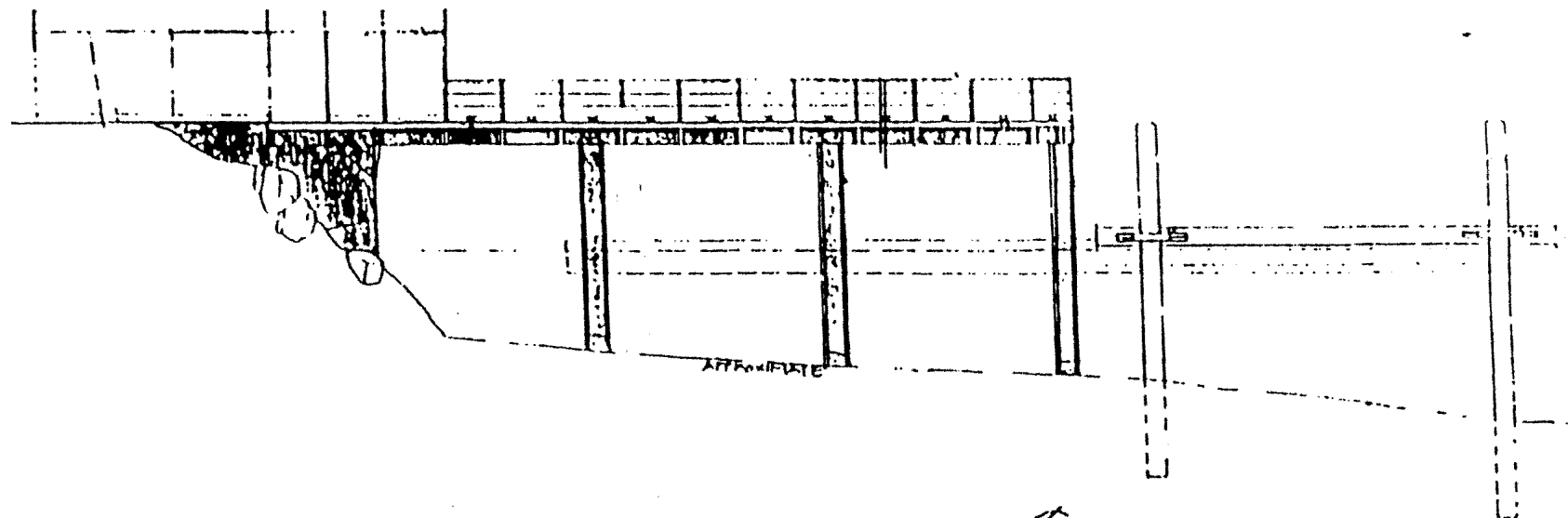
County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Project 2 Trailer Boat Launch Floating Dock
Water Body: San Luis Obispo Bay	Date: June 20, 1997	

EXHIBIT NO. 7
APPLICATION NO. 3-97-078
Project 2

EXHIBIT NO. 8

APPLICATION NO.
3-97-078

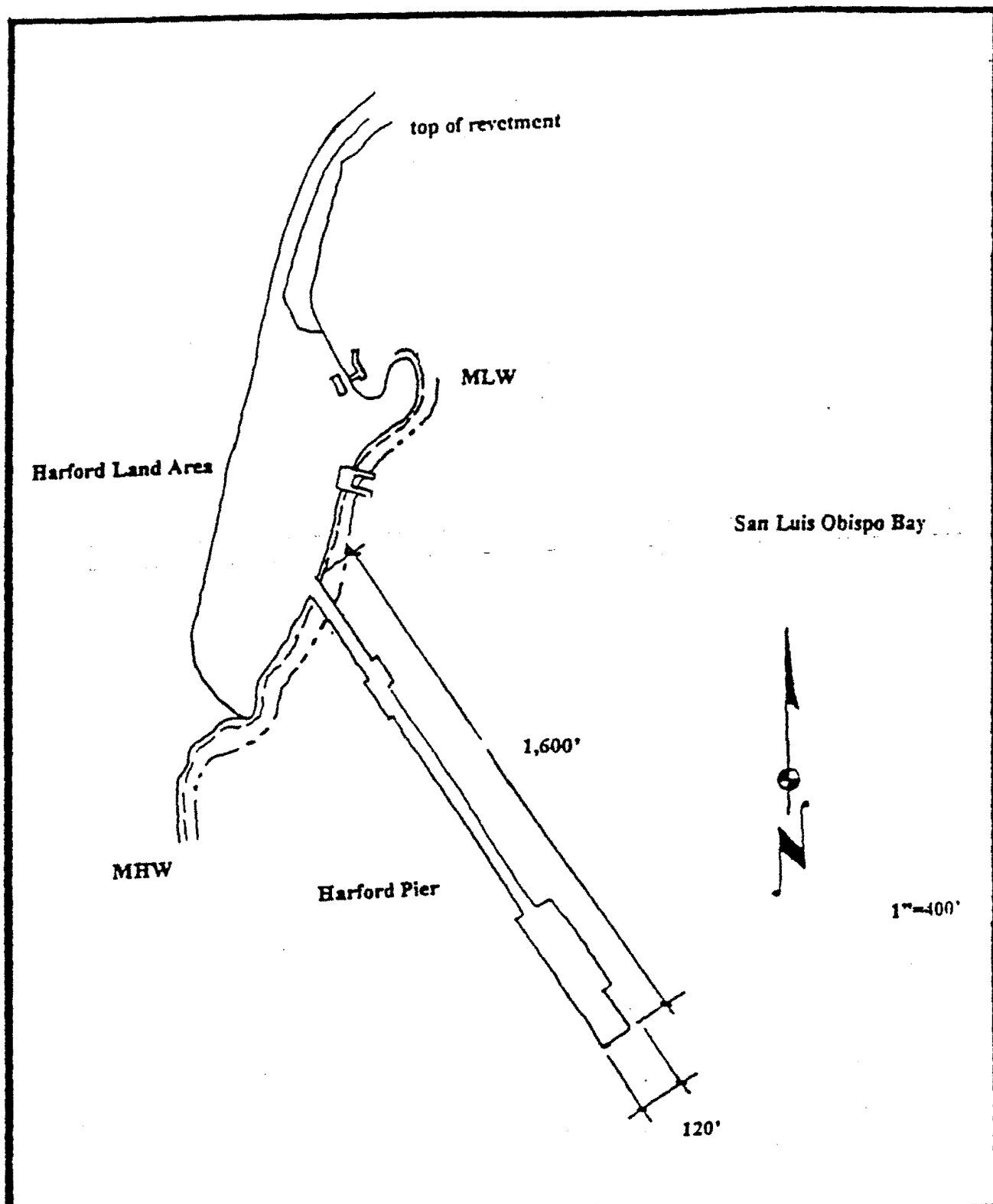
Mobile Boat Hoist
Pier Station



Top of Deck = approx. + 11' MLLW

Sand Bottom = approx - 9' MLLW

County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Mobile Boat Hoist Pier Elevation	Sheet Number P-3b
Water Body: San Luis Obispo Bay	Date: June 20, 1997		



County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Project 4 Harford Pier (Pier 3)	EXHIBIT NO. 9
Water Body: San Luis Obispo Bay	Date: June 20, 1997		APPLICATION NO. 3-97-078
			Project 4-repairs to Harford Pier

EXHIBIT NO. 10
 APPLICATION NO. 3-97-078
 Project 5 - repair of floating docks + landings

To Pier Terminus

To Harford Land Area

Harford Pier

Floating Landing

100'

lat. 35 deg. 10.157 min.
 long. 120 deg. 45.247 min.

lat. 35 deg. 10.208 min.
 long. 120 deg. 45.237 min.

10'x20' Floating Docks

lat. 35 deg. 10.206 min.
 long. 120 deg. 45.237 min.

lat. 35 deg. 10.206 min.
 long. 120 deg. 45.237 min.



scale: 1"=100'

San Luis Obispo Bay

County:
 San Luis Obispo County

Agency:
 Port San Luis Harbor District

Title:
 Project 5
 Floating Docks and Landings

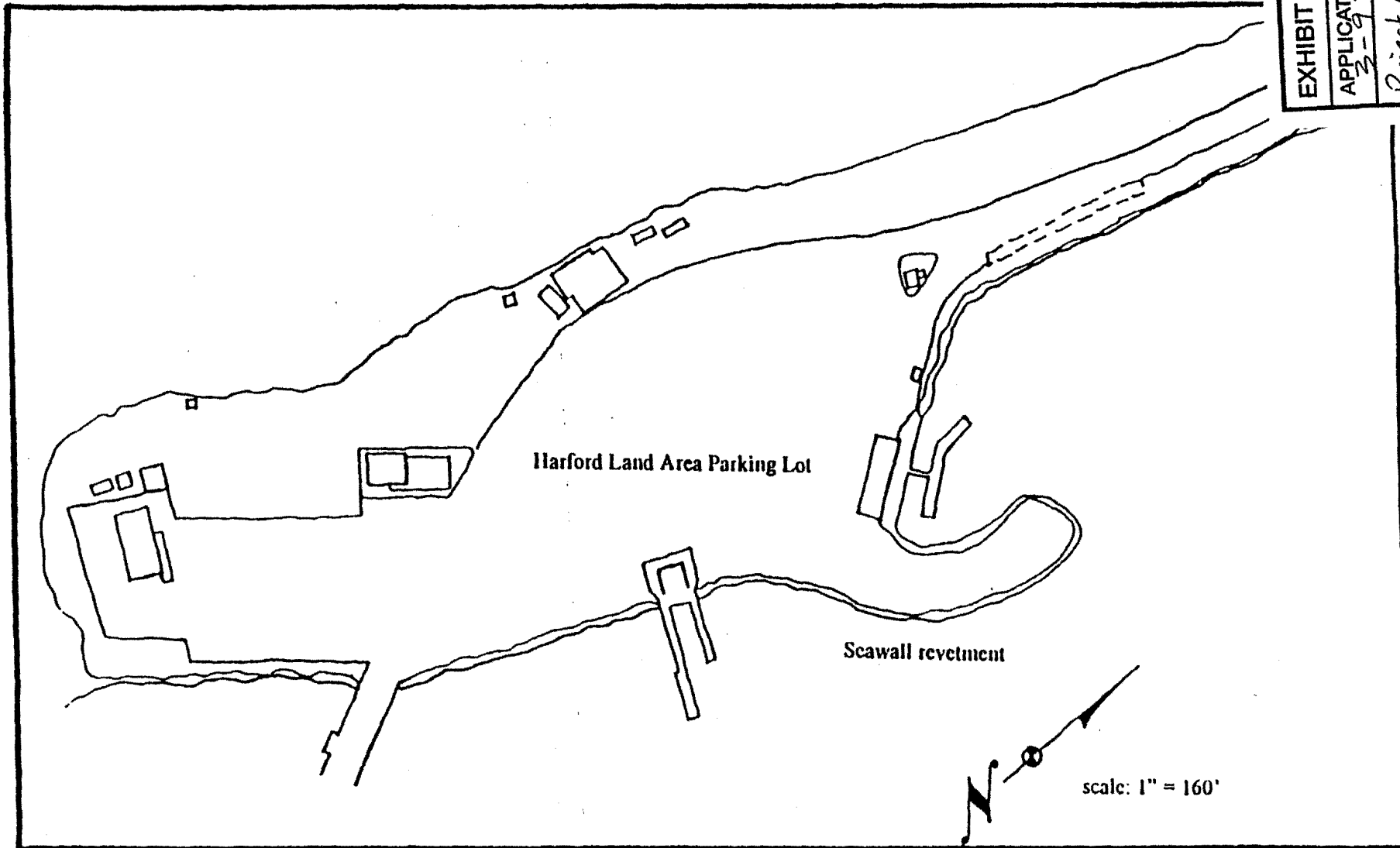
Sheet Number:

Water Body:
 San Luis Obispo Bay

Date:
 June 20, 1997

P-5

EXHIBIT NO. 11
 APPLICATION NO. 2-97-078
 Project 6 - repairs to
 11.1 1 mile 0.1



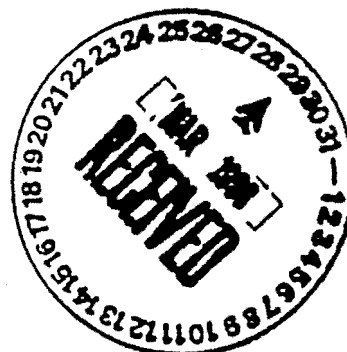
County: San Luis Obispo County	Agency: Port San Luis Harbor District	Title: Project 6 Harford Land Area Parking Lot	Sheet Number: P-6
Water Body: San Luis Obispo Bay	Date: June 20, 1997		

DEPARTMENT OF FISH AND GAME

1001 NINTH STREET
BOX 944207
SACRAMENTO, CA 94244-2090
(916) 653-7667



March 25, 1996



Mr. Jay K. Elder, Harbor Manager
Port San Luis Harbor District
P. O. Box 249
Avila Beach, California 93424

Dear Mr. Elder:

Thank you for your March 8, 1996 letter requesting information on the Department of Fish and Game's (DFG) policy regarding the use of creosote-treated wood products in marine waters. I have attached a copy of the DFG's guidance letter on this subject, dated March 8, 1994.

As you can see, the DFG has taken a position against the use of creosote-treated wood products in State waters. However, the DFG is very much aware of the difficulties this creates for users such as the Port San Luis Harbor District. To partially address these, the DFG will accept use of plastic-wrapped, creosote-treated wood products in marine waters of the State under the following conditions and situations:

1. For new projects that were designed or approved prior to DFG's guidance letter. This will help prevent hardships that would otherwise be caused by the need to re-engineer projects that originally contemplated using creosote-treated wood products.
2. For repair of existing projects constructed using wood products. This will help prevent hardships that would otherwise be caused by a need to redesign or replace existing structures if wood could not be used for repair work.
3. Where the use of plastic-wrapped creosote pilings is restricted to marine waters.
4. Where measures are taken to prevent damage to the plastic wrap from boat use. These measures may include installation of rub strips or bumpers.
5. Where measures are taken to prevent creosote from dripping over the top of plastic wrapping into State waters. These measures may include wrapping pilings to the top or installing collars to prevent dripping.
6. Where the plastic wrapping is sealed at all joints to prevent leakage.

EXHIBIT NO. 12
APPLICATION NO. 3-97-078
DFG guidance regarding the use of plastic wrapped creosote

Mr. Jay K. Elder
March 25, 1996
Page Two

7. Where the plastic material is expected to maintain its integrity for at least ten years, and where plastic wrappings that develop holes or leaks are repaired or replaced in a timely manner.

Please note that this letter relates only to issues of concern to the DFG under Section 5650 of the Fish and Game Code. The use of creosote, as set forth in this letter, may be subject to other regulations administered by other agencies.

I hope this response addresses your questions on the use of creosote. If you would like to discuss this subject further, please contact Mr. Pete Phillips, Environmental Specialist, (916) 653-9714, or at the letterhead address.

Sincerely,



John Turner, Chief
Environmental Services Division

Attachment

cc: Mr. Pete Phillips
Department of Fish and Game
Sacramento

3-97-078
Exhibit 12, p.2

State of California - The Resources Agency

PETE WILSON, Governor

DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>
1416 Ninth Street
Sacramento, CA 95814
(916) 654-3821

RECEIVED

FEB 10 1998

Ans'd.....

January 30, 1998

John Geogehan
Kahl Pownall Advocates
1115 11th Street
Sacramento, California 95814

Dear Mr. *John* Geogehan:

Director Schafer has asked me to respond to your letter of January 23, 1998 concerning the use of creosote treated wood in projects requiring approval under section 1603 of the Fish and Game Code.

The incidental discharge of creosote at levels that are not harmful to fish and wildlife is not a matter embraced by section 1603 of the Fish and Game Code. Additionally, the discharge of creosote, or any other substance, that is authorized by, and in compliance with, the terms of a waste discharge requirement under the Water Code is not prohibited by section 5650 of the Fish and Game Code. The determination of the necessity for, and issuance of, waste discharge requirements is a matter for the Regional Water Quality Control Boards, and not the Department of Fish and Game.

The use of creosote-treated wood products, whether plastic-wrapped or not, is not prohibited by section 1603 if fish and wildlife will not be substantially adversely affected by such use.

I hope this answers your concerns.

Sincerely,

Craig Manson
CRAIG MANSON
General Counsel

HCM/rkh

Conserving California's Wildlife Since 1870.

EXHIBIT NO. 13, p. 1

APPLICATION NO.
3-97-078

Other DFG letters
regarding the use of
creosote treated
wood products

To: Steve Menowitz

(916) 445-9338

January 9, 1998

Mr. Jay K. Elder, Harbor Manager
Port San Luis Harbor District
P.O. Box 249
Avila Beach, California 93424

Dear Mr. Elder:

Thank you for your December 10, 1997, letter requesting an information update on the Department of Fish and Game's (DFG) policy regarding the use of creosote-treated wood products in marine waters.

DFG's policy has not changed since we last corresponded with you on March 25, 1996. The law regarding discharges from creosote-treated wood products into State waters is unchanged since the original 1915 enactment. If discharges occur to marine waters of the State from plastic-wrapped, creosote-treated wood products under the conditions and situations presented to you in our March 25, 1996 letter, but they remain below the actionable standard and therefore are not deleterious to fish and wildlife, there should be no water quality issue.

The legislature has recently amended Fish and Game Code section 5650 in a manner that requires that DFG coordinate more closely with the State Water Resources Control Board and the Regional Water Quality Control Boards. This may require that you contact the appropriate Regional Water Quality Control Board for a determination as to whether it is appropriate to continue to discharge creosote-treated wood products into waters of the State.

I hope this response addresses your questions on the use of creosote. If you need to discuss this subject further, please contact Mr. John Turner, Environmental Program Manager, (916) 327-3200, or at the letterhead address.

Sincerely,

Don Lollock, Chief
Scientific Division
Office of Spill Prevention
and Response

3-97-078
Exhibit 13, p.2

Chron

Mr. John H. Sullivan, Chief Deputy Director;
Mr. Banky Curtis, Deputy Director;
Mr. Al Petrovich, Deputy Director
Regional Managers, Regions 1, 2, 3, 4, and 5;
Division Chiefs: WPD, WMD, MRD, NHD, IFD, BDD, and ESD;
Mr. John Schmidt, Wildlife Conservation Board
Engineering

March 2, 1994

Resource Agency Letter
to Port Authority
with side wide
with function
with 100%
bearing
RWACB's

Creosote

This supersedes my July 19, 1993 Memorandum and provides further guidance to Department of Fish and Game (DFG) staff regarding the use of creosote-treated wood products in State waters. This Memorandum addresses three subjects:

1. DFG use of creosote-treated wood products. DFG shall not use creosote-treated wood products in State Waters, or where creosote from treated wood products can enter State Waters.
2. DFG comment or approval of the use of creosote-treated wood products. DFG shall not approve the use of creosote-treated wood products in State waters, or where creosote from treated wood products can enter State Waters. When commenting on proposed uses of creosote-treated wood projects for which no DFG approval is needed, DFG shall recommend against the use of creosote products. Alternatives that may be appropriate include steel, concrete, plastic, or wood products treated with preservatives that do not contain creosote.
3. DFG response to placement of creosote-treated wood products into State waters. If DFG staff observe or are informed of placement of creosote-treated products into State waters, DFG staff shall inform the DFG wildlife protection staff responsible for the area. Wildlife protection staff have two response options. In instances of clear harm to wildlife, such as an observed fish kill, wildlife protection staff may immediately issue a citation to the responsible party. If harm to wildlife is not obvious, wildlife protection staff may prepare an arrest report and submit it through their supervisor to the District Attorney's Office. The District Attorney's Office will determine if it is appropriate to prosecute the responsible party. Wildlife protection staff will cooperate with the District Attorney's Office when they make their determination.

In all cases where DFG learns of the use creosote products in State waters, the appropriate DFG Regional Manager will notify the local Regional Water Quality Control Board.

3-97-078

Mr. John H. Sullivan, Chief Deputy Director;
Mr. Banky Curtis, Deputy Director;
Mr. Al Petrovich, Deputy Director
Regional Managers, Regions 1, 2, 3, 4, and 5;
Division Chiefs: WPD, WMD, MRD, NHD, IFD, BDD, and ESD;
Mr. John Schmidt, Wildlife Conservation Board
Engineering
March 2, 1994
Page Two

DFG is continuing to investigate this subject, and you will be notified of any future changes in DFG's position on the use of creosote products. If you have any questions regarding this Memorandum, please call me at (916) 653-7667, or call Mr. John Turner, Chief, Environmental Services Division, Department of Fish and Game, 1416 Ninth Street, Sacramento, California 95814, telephone (916) 653-4875.

Original Signed By
JOHN H. SULLIVAN for

Boyd Gibbons
Director

cc: Mr. Robert Treanor
Fish and Game Commission
Sacramento, California

Mr. Walt Pettit
California State Water Resources Control Board
Sacramento, California

Ms. Karyn Meyreles
Department of Fish and Game
Sacramento, California

3-97-078
Exhibit 13, p.4

P.P. Misc.

Mr. John H. Sullivan
Chief Deputy Director
Mr. Banky Curtis, Deputy Director
Mr. Al Petrovich, Deputy Director
Regional Managers: Regions 1, 2, 3, 4, and 5
Division Chiefs: WPD, WMD, MRD, NHD, IFD, BDD,
and ESD
Mr. John Schmidt, Wildlife Conservation Board
Engineering

July 19, 1993

Creosote

Effective for all projects occurring after the date of this letter, Department of Fish and Game (DFG) staff shall not approve the use of creosote-treated wood products in State waters.

Activity by the Solano County District Attorney has raised the question of whether the use of creosote-treated wood products in State water violates Section 5650 of the Fish and Game Code. (Section 5650 provides that it is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of the State, any of several specified materials, including coal tar, or any substance or material deleterious to fish, plant life, or bird life.)

To determine what DFG's permanent position should be on creosote, DFG is conducting field and lab research and intends to work with interested parties, including the State and Regional Water Quality Control boards. You will be advised when there is any change in DFG's position on this material. If you have any questions about this memorandum, please call me at (916) 653-7667 or call Mr. John Turner, Chief, Environmental Services Division, at (916) 653-4875.

Original Signed by:
COPY Boyd H. Gibbons

Boyd Gibbons
Director

cc: Mr. Robert Treanor
Fish and Game Commission
Sacramento, California

Mr. Walt Pettit
State Water Resources Control Board
Sacramento, California

Mr. Stuart Lott
Department of Fish and Game
Sacramento, California

3-97-078
Exhibit 13, p.5

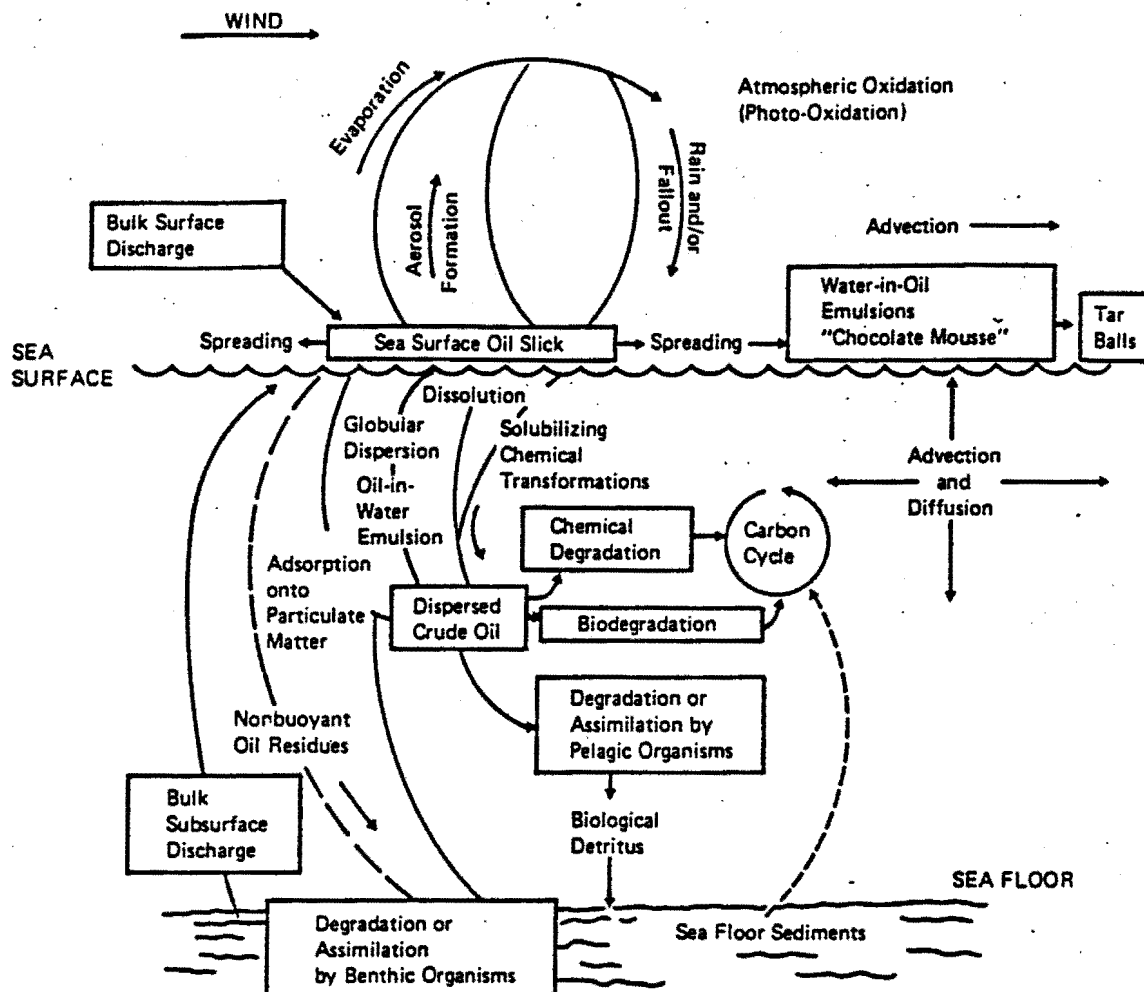


FIGURE 4-1 Schematic of physical, chemical, and biological processes.

SOURCE: Adapted from Burwood and Speers (1974).

Figure 4-1 presents many of these processes in a simple schematicized form.

PHYSICAL AND CHEMICAL FATES

Physical and Chemical Characteristics of Petroleum

The chemical composition of petroleum was discussed in detail in Chapter 3. There are, however, several critical physical properties (given below) that are important when considering the fate of petroleum in the marine environment.

EXHIBIT NO. 14

APPLICATION NO.

3-97-078

diagram illustrating
fate of petroleum
products in the



Western Wood Preservers Institute

7017 N.E. Highway 99, Suite 108

Vancouver, WA 98665

360/693-9958

Fax 360/693-9967

E-Mail: wwpi@teleport.com

February 11, 1998

Mr. Steve Monowitz
California Coastal Commission
Central Coast Area Office
726 Front Street, Suite 300
Santa Cruz, California 95050

RECEIVED

FEB 17 1998

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Dear Mr. Monowitz:

The Western Wood Preservers Institute represents the pressure treated wood products industry in western North America. A major focus of our effort in recent years has been the evaluation of environmental impacts associated with the use of treated wood in aquatic applications, and the promotion of policy which assures the products are used appropriately in such applications.

The purpose of this letter is to share our views and to provide information in response to your Memorandum dated February 9, 1998 Re: "Use of Wrapped Creosote Pilings in the Marine Environment." We have significant information which we believe will shed light on both the policy issues and criteria for use of the products.

- First you should be aware of recent clarification of policy from the Department of Fish and Game which releases the constraints of the March 25, 1996 letter. Attached is correspondence from Mr. Craig Manson, General Council for the Department of Fish and Game on behalf of Director Schafer. The letter is self explanatory, but makes it clear that the use of creosote treated material, whether plastic-wrapped or not, is not prohibited if fish and wildlife will not be substantially adversely affected by such use. It makes it clear that such materials may be used under both the provisions of Fish and Game codes 1603 and 5650. This clarifies an ongoing legal dispute.
- There is a large, growing and scientifically sound body of science which demonstrates that, produced and used appropriately, creosote materials will not, in the majority of applications "substantially adversely affect fish and wildlife." The Institute contracted with Aquatic Environmental Sciences to conduct a world wide review of all information on the aquatic impacts of several preservative systems, including creosote. The effort was conducted by Dr. Kenneth Brooks and resulted in a full bibliography of materials, an assessment of the impacts and creation of a Risk Assessment Model. The most updated version of the material, in a package entitled,

Literature Review, Computer Model and Assessment of the Potential Environmental Risks Associated With Creosote Treated Wood Products Used in Aquatic Environments, is being shipped under separate cover. Also included is the computer disk for the model which can be used to evaluate specific sites. Such review is only needed when projects involve a large number of piling to be placed in an environment where there are extremely low flows and/or the sediments are oxygen deficient. Dr. Brooks is widely recognized for his expertise in this area and is the co-lead scientist on a major creosote environmental impact study being conducted by Environment Canada which is close to completion. If you have questions regarding the science, I would urge you to give him a phone call.

- The industry goal is to minimize any movement of chemical from our products to the environment. In response to this, WWPI and the Canadian Institute of Treated Wood spent several years developing the *Best Management Practices for the Use of Treated Wood in Aquatic Environments*, a copy of which is also being sent to you. The Institute encourages the use of the BMPs in specifying treated wood whenever it is used in or over any aquatic body. There are specific BMPs for each preservative system. The use of the BMPs is now specified by the U.S. Forest Service, Corps of Engineers (Pacific Northwest), Federal Highway Administration, U.S. Navy, and the states of Washington and Idaho. They are also endorsed by various local agencies across north America.
- The concept of plastic wrapped creosote piling is an interesting one. While wraps have shown to help control physical abrasion in some applications, their benefit from an environmental viewpoint is far from clear. In environments where creosote is appropriate, the amount of creosote and PAHs, (the components of concern) moving from the material will come in balance with the microorganisms which consume and bio-degrade the discharge. Environmental concerns only exist where there are major amounts of PAH which exceed the capacity of the system to process it. In theory, plastic wrapping will confine the creosote which moves to the surface over time. However, when at some future date that wrap is physically breached, a relatively large amount of creosote could move to the local environment in a short time with the potential of an adverse affect.
- On a policy point, we question the role of the Commission in evaluating and making judgements regarding the use of treated wood as opposed to alternatives. Steel, plastic and concrete are significantly more expensive and may or may not offer any structural advantages. The leaching of chemicals and reactions of these materials, or their required chemical coatings has not been subjected to the environmental scrutiny equal to treated wood. We believe the appropriate decision for any product should be based upon the best, most complete science and no product should be restricted or banned based on perception or politics. Beyond that, the project proponent should make his/her own determination as to the best product for the project.

In short, creosote is one of several EPA approved preservatives that can be used to pressure treat material for use in marine and freshwater applications. It has been used for over a century and to our knowledge there are no documented cases where proper use of the product has caused a significant adverse environmental impact. There are specific guidelines as to how to treat the materials for various uses and there are BMPs to promote environmentally sound use of the products. Where a question may exist, the tools are available to determine if creosote (or other preservative systems) are appropriate.

If the Coastal Commission decides to undergo a review of treated wood products, we would welcome, and believe we deserve, the opportunity to participate. We would be happy to meet with the Commission or the staff and would sponsor Dr. Brooks to also participate. Certainly adequate lead time would be needed.

Please keep me posted on this issue. If you have any questions, please feel free to call.

Sincerely,



R. Dennis Hayward
Executive Director
Attachment 1

CC: (attach w/o materials)
Dr. Kenn Brooks
Mr. John Geoghegan
Mr. Jay Elder
Mr. Steve Scheiblaue
Director Schafer
Aquatic Working Group

