CALIFORNIA COASTAL COMMISSION

South Coast Area Office 200 Oceangate, Suite 1000 Long Beach, CA 90802-4302 (562) 590-5071

W 15f

Filed: February 16, 2006 49th Day: April 6, 2006

180th Day: November 13, 2006 Staff: Fernie Sy-LB

Staff Report: June 22, 2006 Hearing Date: July 12-14, 2006

Commission Action:



STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-06-068

APPLICANT: Ocean Institute

AGENT: RBF Consulting, Attn: Dan Wery

PROJECT LOCATION: 24200 Dana Point Harbor Drive, Dana Point, Orange County

PROJECT DESCRIPTION: Replace the existing dock (10' x 145') in the same location with a

larger dock (300' long dock that is 27' wide in the middle and 12' wide at the ends) secured by ten 20" diameter concrete piles and construct a new 20' x 100' platform with a 5' x 80' ramp secured by twelve 20" diameter concrete plies. In addition, expansion of an

existing 6' x 105' dock by 420 square feet.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending approval of the proposed project subject to **Four (4) Special Conditions**, which are necessary to assure that marine resources and water quality are protected. The special conditions are necessary in order to find the proposed project consistent with Sections 30233, 30231, and 30230 of the Coastal Act.

Special Condition No. 1 requires that the applicant dispose of all demolition and construction debris at an appropriate location. **Special Condition No. 2** requires the applicant to follow Best Management Practices to ensure the continued protection of water quality and marine resources. **Special Condition No. 3** requires pre and post-construction eelgrass surveys and if eelgrass is discovered within the project vicinity, that impacts be avoided and, if unavoidable, mitigated pursuant to the *Southern California Eelgrass Mitigation Policy*. **Special Condition No. 4** requires that a pre-construction survey for *Caulerpa taxifolia* be done and if its presence is discovered, the applicant shall not proceed with the project until 1) the applicant provides evidence to the Executive Director that all *Caulerpa taxifolia* within the project and buffer areas have been eliminated or 2) the applicant has revised the project to avoid any contact with *Caulerpa taxifolia*.

The proposed development is taking place in the City of Dana Point, which has a certified Local Coastal Program (LCP). However, the proposed development is taking place in the Harbor water, the Commission's area of original jurisdiction. Therefore, the development is within the Commission's original permit jurisdiction under Coastal Act Section 30519(b) and must be evaluated for consistency with the Chapter 3 policies of the Coastal Act. The policies of the certified Dana Point LCP may be used for guidance.

<u>SUBSTANTIVE FILE DOCUMENTS:</u> Letter from the City of Dana Point Community Development Department dated October 25, 2005; Letter from the California State Lands Commission (CSLC) dated February 2, 2006; Letter from the County of Orange Dana Point Harbor Department dated February 8, 2006; California Department of Fish and Game (CDF&G)

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 2 of 14

letter dated March 2, 2006; County of Orange Negative Declaration Determination (SCH No. 2006021106—Mitigated Negative Declaration) dated April 4, 2006; Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Waste Quality Certification dated April 11, 2006; and *Biological Resources Assessment For Ocean Institute Dock Replacement and Extension Project In Dana Point Harbor* prepared by Merkel & Associates, Inc. dated January 30, 2006.

LIST OF EXHIBITS

- 1. Location Map
- 2. Site Plan
- 3. Project Plans

STAFF RECOMMENDATION:

Staff recommends that the Commission adopt the following motion and resolution:

MOTION:

"I move that the Commission approve Coastal Development Permit No. 5-06-068 pursuant to the staff recommendation."

Staff recommends a <u>YES</u> vote. Passage of this motion will result in approval of the 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.

I. APPROVAL WITH CONDITIONS

The Commission hereby **GRANTS** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the 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 development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 3 of 14

II. STANDARD CONDITIONS

- 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. <u>Expiration</u>. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. 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. <u>Interpretation</u>. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. <u>Assignment</u>. 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. <u>Terms and Conditions Run with the Land</u>. 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. CONSTRUCTION RESPONSIBILITIES AND DEBRIS REMOVAL

The permittee shall comply with the following construction-related requirements:

- A. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to tidal and wave erosion and dispersion.
- **B.** Any and all debris resulting from construction activities shall be removed from the site within 10 days of completion of construction.
- **C.** Machinery or construction materials not essential for project improvements shall not be allowed at any time in the intertidal zone.
- **D.** Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material.
- **E.** If turbid conditions are generated during construction a silt curtain shall be utilized to control turbidity.
- **F.** Measures shall be taken to ensure that barges do not ground and impact eelgrass sites.
- **G.** Floating booms shall be used to contain debris discharged into coastal waters and any debris discharged shall be removed as soon as possible but no later than the end of each day.

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 4 of 14

- **H.** Non-buoyant debris discharged into coastal waters shall be recovered by divers as soon as possible after loss.
- I. Reasonable and prudent measures shall be taken to prevent any discharge of fuel or oily waste from heavy machinery, pile drivers, or construction equipment or power tools into coastal waters. The applicant and applicant's contractors shall have adequate equipment available to contain any such spill immediately.
- J. All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- **K.** All debris and trash shall be disposed of in the proper trash and recycling receptacles at the end of each construction day.
- L. The applicant shall use the least damaging method for the construction of pilings and any other activity that will disturb benthic sediments. The applicant shall limit, to the greatest extent practicable, the suspension of benthic sediments into the water column.

2. <u>BEST MANAGEMENT PRACTICES PROGRAM</u>

By acceptance of this permit the applicant agrees that the long-term water-borne berthing of boat(s) in the approved dock and/or boat slip will be managed in a manner that protects water quality pursuant to the implementation of the following BMP's.

- **A.** Boat Cleaning and Maintenance Measures:
 - 1. In-water top-side and bottom-side boat cleaning shall minimize the discharge of soaps, paints, and debris.
 - 2. In-the-water hull scraping or any process that occurs under water that results in the removal of paint from boat hulls shall be prohibited. Only detergents and cleaning components that are designated by the manufacturer as phosphate-free and biodegradable shall be used, and the amounts used minimized.
 - 3. The applicant shall minimize the use of detergents and boat cleaning and maintenance products containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye.
- **B.** Solid and Liquid Waste Management Measures:
 - All trash, recyclables, and hazardous wastes or potential water contaminants, including old gasoline or gasoline with water, absorbent materials, oily rags, lead acid batteries, anti-freeze, waste diesel, kerosene and mineral spirits shall be disposed of in a proper manner and shall not at any time be disposed of in the water or gutter.
- **C.** Petroleum Control Management Measures:
 - 1. Oil absorbent materials shall be examined at least once a year and replaced as necessary. The applicant shall recycle the materials, if

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 5 of 14

possible, or dispose of them in accordance with hazardous waste disposal regulations. The boater shall regularly inspect and maintain engines, seals, gaskets, lines and hoses in order to prevent oil and fuel spills. Boater shall also use preventive engine maintenance, oil absorbents, bilge pump-out services, or steam cleaning services as much as possible to clean oily bilge areas and shall not use detergents while cleaning. The use of soaps that can be discharged by bilge pumps is prohibited.

3. EELGRASS SURVEY

- Α. Pre Construction Eelgrass Survey. A valid pre-construction eelgrass (Zostera marina) survey shall be completed during the period of active growth of eelgrass (typically March through October). The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth. The survey shall be prepared in full compliance with the "Southern California Eelgrass Mitigation Policy" Revision 8 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicant shall submit the eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any development. If the eelgrass survey identifies any eelgrass within the project area, which would be impacted by the proposed project, the development shall require an amendment to this permit from the Coastal Commission or a new coastal development permit.
- В. Post Construction Eelgrass Survey. If any eelgrass is identified in the project area by the survey required in subsection A of this condition above, within one month after the conclusion of construction, the applicant shall survey the project site to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the "Southern California Eelgrass Mitigation Policy" Revision 8 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicant shall submit the postconstruction eelgrass survey for the review and approval of the Executive Director within thirty (30) days after completion of the survey. If any eelgrass has been impacted, the applicant shall replace the impacted eelgrass at a minimum 1.2:1 ratio on-site, or at another location, in accordance with the Southern California Eelgrass Mitigation Policy. All impacts to eelgrass habitat shall be mitigated at a minimum ratio of 1.2:1 (mitigation:impact). The exceptions to the required 1.2:1 mitigation ratio found within SCEMP shall not apply. Implementation of mitigation shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is required.

4. PRE-CONSTRUCTION CAULERPA TAXIFOLIA SURVEY

A. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit (the "project"), the applicant shall undertake a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 6 of 14

presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate.

- **B.** The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Game, and the National Marine Fisheries Service.
- **C.** Within five (5) business days of completion of the survey, the applicant shall submit the survey:
 - i. for the review and approval of the Executive Director; and
 - ii. to the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (858/467-4218) or Robert Hoffman, National Marine Fisheries Service (562/980-4043).
- D. If Caulerpa taxifolia is found within the project or buffer areas, the applicant shall not proceed with the project until 1) the applicant provide evidence to the Executive Director that all *C. taxifolia* discovered within the project area and all *C. taxifolia* discovered within the buffer area have been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised the project to avoid any contact with *C. taxifolia*. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT LOCATION, DESCRIPTION AND PRIOR COMMISSION AND CITY ACTION

1. <u>Project Location and Description</u>

The proposed project is located at the Ocean Institute, a non-profit educational facility located at 24200 Dana Point Harbor Drive in the City of Dana Point, County of Orange in the inner portion of Dana Point Harbor (Exhibit No. 1). The institute offers marine science, environmental education, and maritime history programs to kindergarten through 12th grade students and teachers, as well as programs for the general public. The programs include hands-on activities on three (3) vessels: the *R/V Sea Explorer*, the *Spirit of Dana Point*, and the *Pilgrim*, which are moored at two (2) existing docking facilities at the Ocean Institute. The Ocean Institute is proposing work to improve their aging docking facilities. According to the applicant, the current *R/V Sea Explorer* and *Spirit of Dana Point* dock is too short and too low to appropriately accommodate and moor both vessels, too narrow to accommodate educational program activities, and facilities, is not compliant with the Americans with Disabilities Act (ADA) requirements, is vulnerable to damage and loss of use with only four (4) aging support piles, and is at the end of its useful life. The applicant

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 7 of 14

states that the purpose of the project is to maintain the existing educational activities and mission, not to expand them.

The applicant proposes the following: replacing the existing 10' x 145' dock (1,450 square foot R/V Sea Explorer and Spirit of Dana dock) in the same location with a larger dock (300' long dock that is 27' wide in the middle and 12' wide at the ends resulting in a 5,500 square feet) secured by ten (10)-20" diameter concrete piles (Exhibits No. 2-3). The new dock will also have the following located on it: dive gear wash area, testing area, storage areas and a pump house. In addition, the proposed project consists of construction of a new 20' x 100' platform with a 5' x 80' ramp secured by twelve (12)-20" diameter concrete plies leading to the new dock (Exhibits No. 2-3). The new platform will also have the following located on it: gates enclosing the platform, a cargo boom crane, capstand, safety gate, and a Boat Shop (20' (L) x 20' (W) x 10'-6" (H) that will serve as a demonstration area/storage area/waiting area for onsite programs. In order to maintain the educational programming schedule during construction, the three (3) vessels will temporarily share use of the adjacent Pilgrim dock. In order to accommodate the docking of the multiple vessels and to improve the function and safety of the dock, the north edge of the *Pilarim* dock will also be expanded by approximately 4' along its entire 105' length for an expansion total of 420 square feet (Exhibits No. 2-3). In addition, the following work will occur on the *Pilgrim* dock: replace three (3) existing rusted pile caps, repair gates, relocate existing utilities. No additional piles will be needed for this dock expansion.

No dredging is proposed with the proposed project. The project site has been assessed for eelgrass and the assessment determined that there was no eelgrass at the project site. The dock replacement will occur bayward of the existing bulkhead and there will be no construction disturbance landward of the bulkhead. The project will not change the existing educational program or use of the dock or landside educational facilities and will not result in a change in an intensity of use. The project is anticipated to take two to three months.

The proposed project has received a Negative Declaration Determination (SCH No. 2006021106—Mitigated Negative Declaration) dated April 4, 2006 from the County of Orange. Also, the project has received Clean Water Act Section 401 Waste Quality Certification dated April 11, 2006 from the Regional Water Quality Control Board (RWQCB). In addition, the project has received approval from the California State Lands Commission (CSLC) (letter dated February 2, 2006) and the California Department of Fish and Game (CDF&G) (letter dated March 2, 2006). The applicant has applied for approval of the proposed project from the U.S. Army Corps of Engineers (USACOE) and is pending.

2. Prior Commission and City Action at Project Site

On March 15, 1990, the Commission approved Coastal Development Permit No. 5-90-070-[Orange County Marine Institute] for construction of a reinforced concrete access pier on steel piles, a floating dock, and electrical and mechanical utilities for mooring a historic vessel in Dana Point Harbor. The permit was approved with no Special Conditions and was issued on March 21, 1990.

On April 13, 1992, the Commission approved Coastal Development Permit Extension No. 5-90-070-E1-[Orange County Marine Institute].

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 8 of 14

On September 21, 2000, the City of Dana Point took Final Action on Coastal Development Permit No. 96-11 (I) for an amendment to a Coastal Development Permit to allow for the demolition of two (2) existing structures, approximately 8,300 square feet in size, and the construction of six (6) new structures, including site improvements for use as an Ocean Education Center. The Notice of Final Local Action was received September 25, 2000. The appeal period stared September 26, 2000 and ended on October 10, 2000. The project was not appealed.

On September 20, 2001, the City of Dana Point took Final Action on Coastal Development Permit No. 96-11 (III) for an amendment to approve the improvements carried out under emergency repair (CDP No. 91-11) as a permanent addition to the originally approved Coastal Development Permit for construction of the Ocean Education Center.

B. MARINE RESOURCES

Section 30233 of the Coastal Act states, in relevant part:

- (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.
 - (4) 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.

The proposed project is located in and over the coastal waters of Dana Point Harbor (Exhibit No. 1). Projects which could have an adverse impact on water resources should be examined to assure that potential impacts are minimized. The standard of review for development proposed in coastal waters are the Chapter 3 policies of the Coastal Act, including the following marine resource policy. Section 30233 of the Coastal Act limits the fill of open coastal waters.

The Coastal Act limits the fill of open coastal water to certain specified uses and also requires that any project which results in fill of open coastal waters provide adequate mitigation. Section 30233 of the Coastal Act allows fill of open coastal waters, such as Dana Point Harbor, for recreational boating purposes. Part of the proposed project requires the installation of twenty-two (22) new 20" diameter concrete piles (Exhibits No. 2-3). The installation of these twenty-two (22) new piles will displace habitat bottom. The fill required by the project is for a recreational boating facility, an allowable purpose under 30233 (4) of the Coastal Act. The project can be found consistent with Section 30233, only if it is the least environmentally damaging feasible alternative and feasible mitigation measures have been provided to minimize environmental effects. One way to minimize environmental damage is to limit fill. In order to anchor the replaced dock and new platform the installation of twenty-two (22) new piles is necessary. This is the minimum number of piles necessary to adequately support and anchor the new dock, gangway and landing. The proposed project will use the minimum number of piles thereby minimizing the amount of fill needed to support the allowable use. Thus, the project as proposed is the least environmentally damaging alternative. Section 30233 also requires that any project which results

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 9 of 14

in fill of open coastal waters also provide adequate mitigation. The proposed project meets this requirement because the pilings provide vertical habitat for marine organisms.

The proposed project also includes a platform adjacent to the existing bulkhead that is supported on pilings installed in the harbor. The new platform will contain open deck area as well as a partially enclosed "Boat Shop". Both the new platform and the "Boat Shop" will be used to provide public access and recreational opportunities in the form of education-based recreation (e.g. demonstration area for onsite programs), serve as a staging area for classes boarding the boats, and would assist in providing continued public access to the harbor. The "Boat Shop" is not a commercial venue and it is not dictating the size of the platform. Given the need for adequate space to stage large groups of children and adults boarding the boats, the platform would be sized as proposed with or without the "Boat Shop". As with the dock pilings, the platform pilings are the minimum size and quantity necessary for structural stability of the platform and the pilings will provide habitat for marine organisms. Thus, the platform with "Boat Shop" can be found consistent with the use limitations and other requirements found in Section 30233 of the Coastal Act. Therefore, for the reasons listed above, the Commission finds that the proposed project is consistent with Section 30233 of the Coastal Act.

C. WATER QUALITY AND THE MARINE ENVIRONMENT

Section 30230 of the Coastal Act states:

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 of the Coastal Act states:

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.

The proposed project is located in and over the coastal waters of Dana Point Harbor (Exhibit No. 1). Any potential impacts to water quality due to development should be examined to assure that potential impacts are minimized. The standard of review for development proposed in coastal waters is the Chapter 3 policies of the Coastal Act, including the following water quality policies. Sections 30230 and 30231 of the Coastal Act require the protection of biological productivity and water quality.

1. Construction Impacts to Water Quality

The proposed development will occur over and in the water. Construction of any kind adjacent to or in coastal waters has the potential to impact marine resources. The harbor

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 10 of 14

provides an opportunity for water oriented recreational activities and also serves as a home for marine habitat. Because of the coastal recreational activities and the sensitivity of the harbor habitat, potential water quality issues must be examined as part of the review of this project.

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion or which may be discharged into coastal water via rain, tidal action, or wind would result in adverse impacts upon the marine environment that would reduce the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat. In addition, the use of machinery in coastal waters not designed for such use may result in the release of lubricants or oils that are toxic to marine life. Sediment discharged into coastal waters may cause turbidity, which can shade and reduce the productivity of foraging avian and marine species ability to see food in the water column. In order to avoid adverse construction-related impacts upon marine resources, Special Condition No. 1 outlines construction-related requirements to provide for appropriate construction methods as well as the safe storage of construction materials and the safe disposal of construction debris. The condition requires that the applicant dispose of all demolition and construction debris at an appropriate location. This condition requires the applicant to incorporate silt curtains and/or floating booms when necessary to control turbidity and debris discharge. Divers shall remove any non-floatable debris not contained in such structures that sink to the ocean bottom as soon as possible.

2. Post-Construction Impacts to Water Quality

The proposed dock project will allow for the long term berthing of boat(s) by the applicant. Some maintenance activities if not properly regulated could cause adverse impacts to the marine environment. Certain maintenance activities like cleaning and scraping of boats, improper discharges of contaminated bilge water and sewage waste, and the use of caustic detergents and solvents, among other things, are major contributors to the degradation of water quality within boating facilities.

To minimize the potential that maintenance activities would adversely affect water quality, the Commission imposes **Special Condition No. 2** that requires the applicant to follow Best Management Practices to ensure the continued protection of water quality and marine resources. Such practices that the applicant shall follow include proper boat cleaning and maintenance, management of solid and liquid waste, and management of petroleum products, all of which associated with the long term berthing of the boat(s) (more thoroughly explained in **Special Condition No. 2** of this permit).

3. Eelgrass

Eelgrass (Zostera marina) is an aquatic plant consisting of tough cellulose leaves which grows in dense beds in shallow, subtidal or intertidal unconsolidated sediments. Eelgrass is considered worthy of protection because it functions as important habitat and foraging area for a variety of fish and other wildlife, according to the Southern California Eelgrass Mitigation Policy (SCEMP) adopted by the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG). For instance, eelgrass beds provide areas for fish egg laying, juvenile fish rearing, and waterfowl foraging. Sensitive species, such as the California least tern, a federally listed endangered species, utilize eelgrass beds as foraging grounds.

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 11 of 14

The applicant has submitted *Biological Resources Assessment For Ocean Institute Dock Replacement and Extension Project In Dana Point* Harbor dated January 30, 2006, which reviews any potential biological impacts the proposed project may have including impacts upon eelgrass. The assessment states that no eelgrass is present and concluded that: "Given the limited nature of the dock expansion, the lack of sensitive resources in the project area, the lack of limited or unique biota beneath the docks, and the anticipated recovery of resource values by reestablishment of similar or more productive communities around the expanded docks, the project as proposed would not be anticipated to result in significant adverse biological impacts."

However, the eelgrass survey discussed in the biological assessment took place on July 1, 2005. Eelgrass surveys completed during the active growth (typically March through October) phase of eelgrass are valid for 60-days with the exception of surveys completed in August-October. A survey completed in August - October shall be valid until the resumption of active growth (i.e., March 1). The project is agendized for the July 2006 Coastal Commission Hearing and by this time the eelgrass survey would not continue to be valid since 60-days have passed since the survey was completed. Thus, an up-to-date eelgrass survey must be conducted. Therefore, the Commission is imposing **Special Condition No. 3**, which requires pre and post-construction eelgrass surveys and if eelgrass is discovered within the project vicinity, that impacts be avoided and, if unavoidable, mitigated pursuant to the *Southern California Eelgrass Mitigation Policy*.

4. <u>Caulerpa taxifolia</u>

Also, as noted above, eelgrass is a sensitive aquatic plant species which provides important habitat for marine life. Eelgrass grows in shallow sandy aquatic environments which provide plenty of sunlight. Around the year 2000, a non-native and invasive aquatic plant species, Caulerpa taxifolia (herein C. taxifolia), was discovered in parts of Huntington Harbor (Emergency Coastal Development Permits 5-00-403-G and 5-00-463-G) which occupies similar habitat. C. taxifolia is a tropical green marine alga that is popular in the aquarium trade because of its attractive appearance and hardy nature. In 1984, this seaweed was introduced into the northern Mediterranean. From an initial infestation of about 1 square yard it grew to cover about 2 acres by 1989, and by 1997 blanketed about 10,000 acres along the coasts of France and Italy. Genetic studies demonstrated that those populations were from the same clone, possibly originating from a single introduction. This seaweed spreads asexually from fragments and creates a dense monoculture displacing native plant and animal species. In the Mediterranean, it grows on sand, mud and rock surfaces from the very shallow subtidal to about 250 ft depth. Because of toxins in its tissues, C. taxifolia is not eaten by herbivores in areas where it has invaded. The infestation in the Mediterranean has had serious negative economic and social consequences because of impacts to tourism, recreational diving, and commercial fishing¹.

Meinesz, A. (Translated by D. Simberloff) 1999. Killer Algae. University of Chicago Press

Chisholm, J.R.M., M. Marchioretti, and J.M. Jaubert. Effect of low water temperature on metabolism and growth of a subtropical strain of Caulerpa taxifolia (Chlorophyta). Marine Ecology Progress Series 201:189-198

Ceccherelli, G. and F. Cinelli. 1999. The role of vegetative fragmentation in dispersal of the invasive alga Caulerpa taxifolia in the Mediterranean. Marine Ecology Progress Series 182:299-303

References

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 12 of 14

Because of the grave risk to native habitats, in 1999 C. taxifolia was designated a prohibited species in the United States under the Federal Noxious Weed Act. In addition, in September 2001 the Governor signed into law AB 1334 which made it illegal in California for any person to sell, possess, import, transport, transfer, release alive in the state, or give away without consideration various Caulerpa species including C. taxifolia.

In June 2000, C. taxifolia was discovered in Aqua Hedionda Lagoon in San Diego County, and in August of that year an infestation was discovered in Huntington Harbor in Orange County. Genetic studies show that this is the same clone as that released in the Mediterranean. Other infestations are likely. Although a tropical species, C. taxifolia has been shown to tolerate water temperatures down to at least 50°F. Although warmer southern California habitats are most vulnerable, until better information if available, it must be assumed that the whole California coast is at risk. All shallow marine habitats could be impacted.

In response to the threat that C. taxifolia poses to California's marine environment, the Southern California Caulerpa Action Team, SCCAT, was established to respond quickly and effectively to the discovery of C. taxifolia infestations in Southern California. The group consists of representatives from several state, federal, local and private entities. The goal of SCCAT is to completely eradicate all C. taxifolia infestations.

If C. taxifolia is present, any project that disturbs the bottom could cause its spread by dispersing viable tissue fragments. No C. taxifolia survey has been conducted. Therefore, in order to assure that the proposed project does not cause the dispersal of C. taxifolia, the Commission imposes **Special Condition No. 4**, which requires the applicant, prior to commencement of development, to survey the project area for the presence of C. taxifolia. If C. taxifolia is present in the project area, no work may commence and the applicant shall seek an amendment or a new permit to address impacts related to the presence of the C. taxifolia, unless the Executive Director determines that no amendment or new permit is required.

Conclusion

To minimize the adverse impacts upon the marine environment, Four (4) Special Conditions have been imposed. Special Condition No. 1 requires that the applicant dispose of all demolition and construction debris at an appropriate location. Special Condition No. 2 requires the applicant to follow Best Management Practices to ensure the continued protection of water

Smith C.M. and L.J. Walters. 1999. Fragmentation as a strategy for Caulerpa species: Fates of fragments and implications for management of an invasive weed. Marine Ecology 20:307-319.

Jousson, O., J. Pawlowski, L. Zaninetti, A. Meinesz, and C.F. Boudouresque. 1998. Molecular evidence for the aquarium origin of the green alga Caulerpa taxifolia introduced to the Mediterranean Sea. Marine Ecology Progress Series 172:275-280.

Komatsu, T. A. Meinesz, and D. Buckles. 1997. Temperature and light responses of the alga Caulerpa taxifolia introduced into the Mediterranean Sea. Marine Ecology Progress Series 146:145-153.

Gacia, E. C. Rodriquez-Prieto, O. Delgado, and E. Ballesteros. 1996. Seasonal light and temperature responses of Caulerpa taxifolia from the northwestern Mediterranean. Aquatic Botany 53:215-225.

Belsher, T. and A. Meinesz. 1995. Deep-water dispersal of the tropical alga Caulerpa taxifolia introduced into the Mediterranean. Aquatic Botany 51:163-169.

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 13 of 14

quality and marine resources. **Special Condition No. 3** requires pre and post-construction eelgrass surveys and if eelgrass is discovered within the project vicinity, that impacts be avoided and, if unavoidable, mitigated pursuant to the *Southern California Eelgrass Mitigation Policy*. **Special Condition No. 4** requires that a pre-construction survey for *Caulerpa taxifolia* be done and if its presence is discovered, the applicant shall not proceed with the project until 1) the applicant provide evidence to the Executive Director that all *Caulerpa taxifolia* within the project and/or buffer area has been eliminated or 2) the applicant has revised the project to avoid any contact with *Caulerpa taxifolia*. Only as conditioned does the Commission finds that the proposed project is consistent with Section 30230 and 302310f the Coastal Act.

D. PUBIC ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

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

Section 30212 of the Coastal Act states, in relevant part:

- (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:
- (2) adequate access exists nearby, or,

Section 30213 of the Coastal Act states, in relevant part:

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

One of the strongest legislative mandates of the Coastal Act is the preservation of coastal access. Section 30210 of the Coastal Act states that maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. Section 30212 of the Coastal Act mandates that new development shall provide coastal public access. Section 30213 of the Coastal Act requires that lower cost and recreational facilities be protected, encouraged and where feasible provided.

The subject site is a facility that offers marine science, environmental education, and maritime history programs to kindergarten through 12 grade students and teachers. The proposed project will help to continue to provide public access to the harbor. One aspect of the proposed project is the construction of a Boat Shop (20' (L) x 20' (W) x (10'-6" (H) located on the new platform. While the proposed Boat Shop may cause minor visual impacts, the Boat Shop is intended for recreational educational uses (i.e. demonstration area for onsite programs) and would assist in providing continued public access to the harbor. Many of their programs require demonstrations that take place outside and also require use of the vessels on site and that is why the Boat Shop is a valuable part of the project as it provides a covered and protected location for these demonstrations and an adjacent location to the vessels.

5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 14 of 14

The proposed development, as conditioned, will not result in any new significant adverse impacts to existing public access or recreation in the area. Therefore the Commission finds that the project is consistent with the public access and recreation policies of the Coastal Act.

E. LOCAL COASTAL PROGRAM (LCP)

The proposed development is taking place in the City of Dana Point, which has a certified Local Coastal Program (LCP). However, the proposed development is taking place in the harbor water, the Commission's area of original jurisdiction. Therefore, the development is within the Commission's original permit jurisdiction under Coastal Act Section 30519(b) and must be evaluated for consistency with the Chapter 3 policies of the Coastal Act. The policies of the certified Dana Point LCP may be used for guidance.

Policy 3.c.4. states, in relevant part:

In order to preserve valuable marine life and resources, development should not significantly degrade the quality of coastal waters.

Policy 7.a.7. states, in relevant part:

The County will take all necessary steps to protect the public's constitutionally guaranteed rights of access to and along the shoreline.

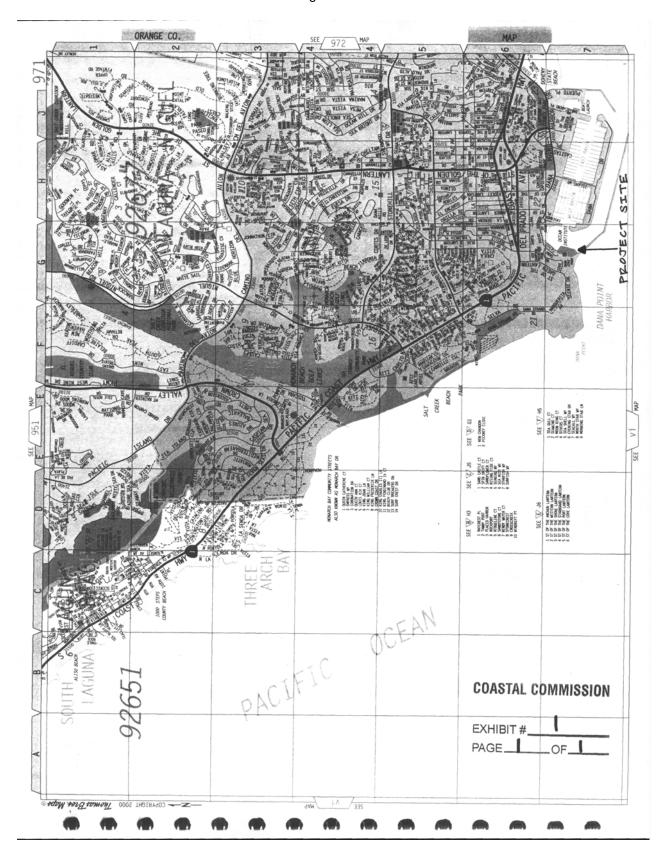
F. CALIFORNIA ENVIRONMENTTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (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 that the activity may have on the environment. Potential impacts on marine habitat, eelgrass, and water quality have been identified and those impacts are avoided or mitigated.

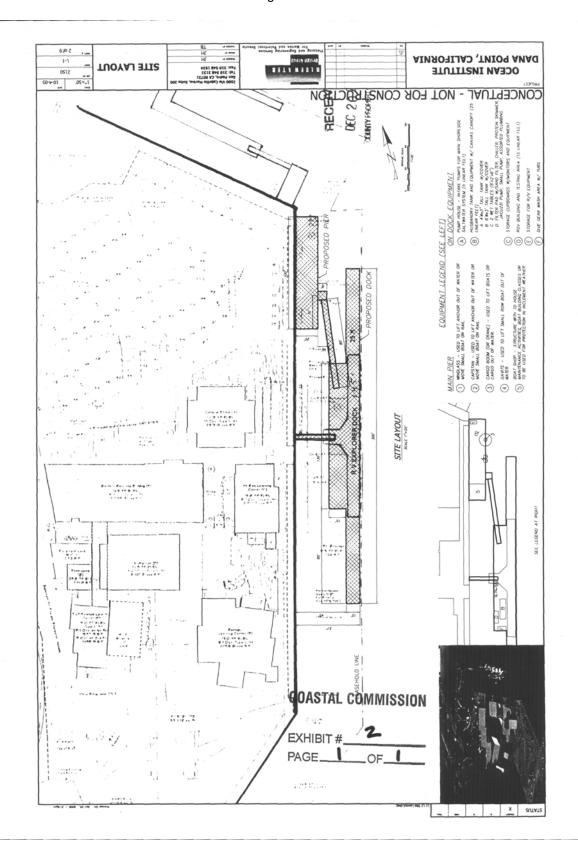
The proposed project is located in an urban area. All infrastructure necessary to serve the site exists in the area. As conditioned, the proposed project has been found consistent with the marine resource protection policies of Chapter 3 of the Coastal Act. Mitigation measures include special conditions requiring pre- and post-construction eelgrass surveys and disposal of all demolition and construction debris at an appropriate location and to follow Best Management Practices to ensure the continued protection of water quality and marine resources.

As conditioned, there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

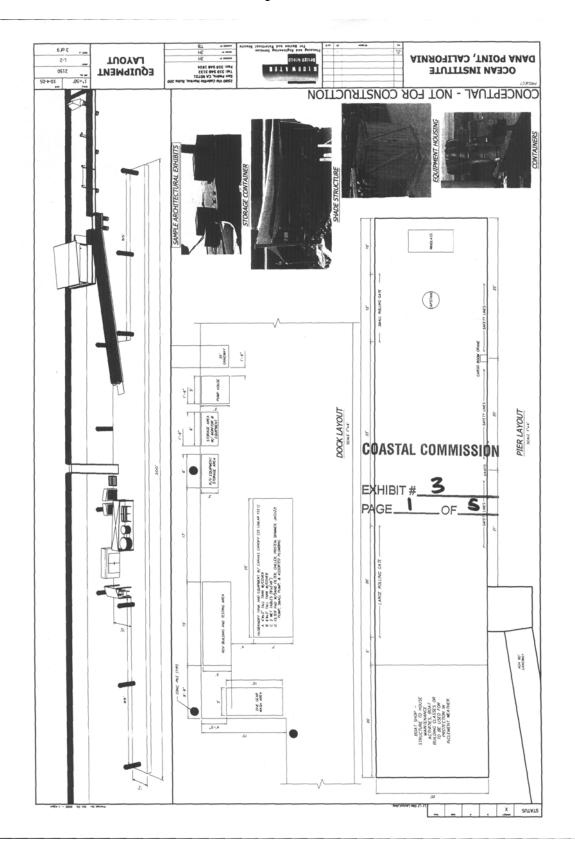
5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 15 of 14



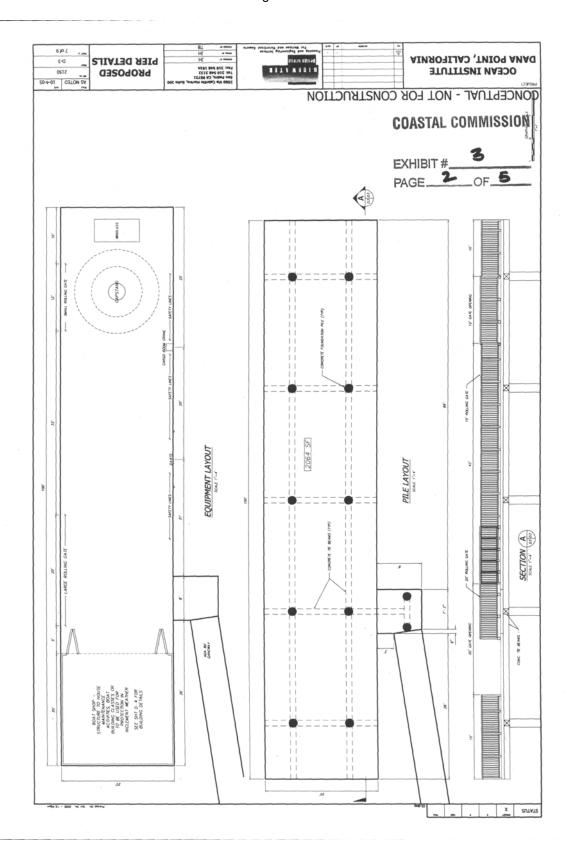
5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 16 of 14



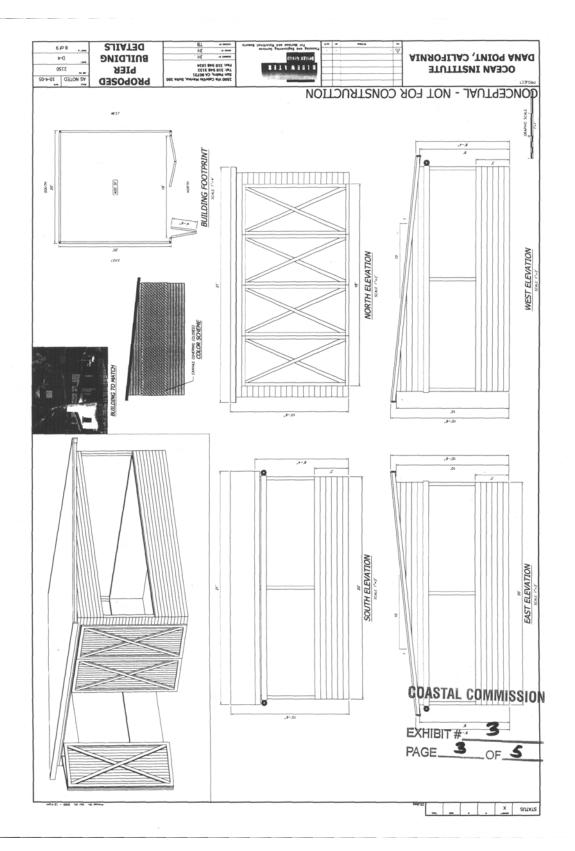
5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 17 of 14



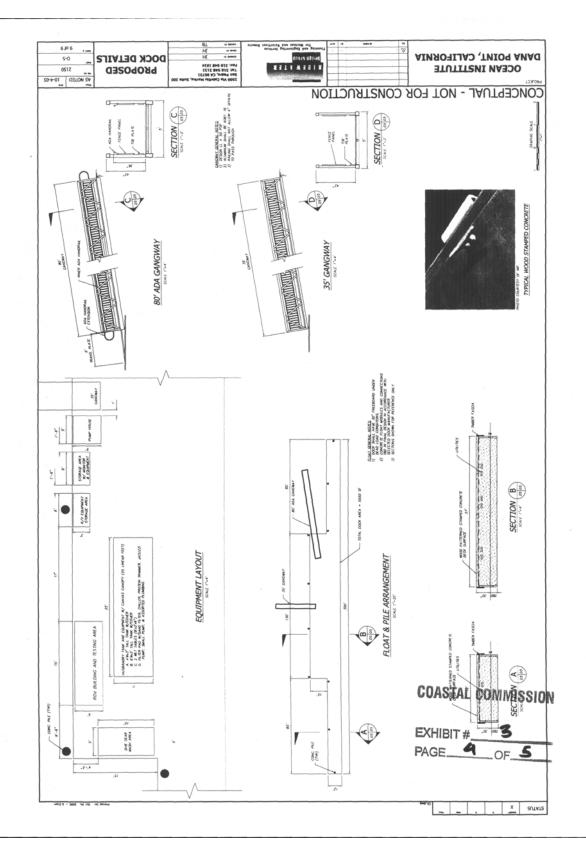
5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 18 of 14



5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 19 of 14



5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 20 of 14



5-06-068-[Ocean Institute] Staff Report–Regular Calendar Page 21 of 14

