CALIFORNIA COASTAL COMMISSION

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Item Tu9v

Filed:September 7, 200149th Day:October 26, 2001180th Day:March 6, 2002Staff:KFS-LBStaff Report:December 20, 2001Hearing Date:January 8-11, 2002Commission Action:



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STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-01-359

Application	Applicant(s)	Project Location:	Tract #	Lot#
		Trinidad Island, Huntington		
		Beach, Orange County		
5-01-359	Azoulay, Isaac	3432 Venture Drive	8636	6

AGENT: Tetra Tech, Inc.: Fernando Pagés and Sarah McFadden

PROJECT DESCRIPTION: Repair and enhancement of existing bulkhead consisting of installation of vinyl sheet pile sections totaling 36 linear feet located 1 foot 7 inches seaward of the existing bulkhead and filling the voids between the bulkhead and sheet pile, under the bulkhead and around the existing exposed foundation support pilings. In addition, place 20 cubic yards of rock slope protection against the toe of the seawall. Mitigation of 29.1 square feet of impact to soft bottom bay habitat with 58.2 square feet of tidal mud flat at the Bolsa Chica Ecological Reserve. In addition, mitigation of 37 square feet of impact to ellgrass with 44.4 square feet of eelgrass near the Anaheim Bay National Wildlife Refuge.

SUMMARY OF STAFF RECOMMENDATION:

The major issues of this staff report relate to construction and operation phase impacts of placing bulkhead reinforcements in the marine environment. With conditions, the project will have no adverse construction phase impacts on water quality or marine habitat. However, the project will have direct impacts upon eelgrass which are proposed to be mitigated. In addition, the project will have permanent impacts upon soft bottom habitat that are proposed to be mitigated.

Staff recommends **APPROVAL** of the proposed development with special conditions which require: 1) compliance with plans submitted by the applicant; 2) conformance with specific construction responsibilities to avoid impacts upon water quality and marine resources; 3) conformance with the proposed eelgrass mitigation plan; 4) preparation of a survey to confirm the absence of Caulerpa taxifolia in the project area prior to commencing construction; 5) the applicant to acknowledge this coastal development permit is not a waiver of public rights on the property; 6) the applicant to provide evidence of an approved coastal development permit for the off site eelgrass and soft bottom mitigation; 7) a requirement that the applicant implement the proposed soft bottom mitigation; 8) a requirement the applicant demonstrates their legal ability to carry out the proposed project and all conditions of approval of the project from the 25 nat Water Quality Control Board.



OTHER APPROVALS RECEIVED: City of Huntington Beach approval-in-concept dated September 7, 2001; Mitigated Negative Declaration No. 00-05 approved by the City of Huntington Beach Zoning Administrator on September 13, 2000; Addendum to Mitigation Negative Declaration No. 00-05 approved by the City of Huntington Beach Zoning

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Administrator on September 12, 2001; Protective Structure Lease No. W25628 from California State Lands Commission dated September 1, 2001.

SUBSTANTIVE FILE DOCUMENTS: See Appendix A

STAFF NOTE:

The proposed project is one of several applications that have been submitted over time by various property owners for approval of bulkhead reinforcements in Huntington Harbour. As of the date of this staff report, the Commission has approved approximately nineteen (19) applications covering one hundred and four (104) properties for bulkhead repairs in Huntington Harbour. These repair projects generally fall within one of four categories: 1) projects with no impact on eelgrass and no permanent impact upon soft bottom habitat; 2) projects with impacts upon eelgrass, but no permanent impact upon soft bottom habitat; 3) projects with no impact on eelgrass, but which do have permanent impacts upon soft bottom habitat; and 4) projects having both impacts upon eelgrass and permanent impacts upon soft bottom habitat. The proposed project would fall within category four (projects within eelgrass and soft bottom impacts). Mitigation for impacts to eelgrass is being carried out in combination with an eelgrass mitigation project by the County required by Coastal Development Permit 5-97-231. Meanwhile, wetland mitigation for impacts to soft bottom habitat are to be carried out at the Bolsa Chica Ecological Reserve under a restoration plan approved by Coastal Development Permit 5-01-020.

It should also be noted that Commission staff anticipate a large number of applications in the future for similar repairs to bulkheads throughout Huntington Harbour. For instance, the Commission has already processed at least 19 applications covering 104 properties on Trinidad and Humboldt Islands (two bulkheaded islands in Huntington Harbour) for repairs to the bulkhead. The existing bulkhead system in Huntington Harbour was constructed at approximately the same time using a similar design. Therefore, the problems with the bulkheads encountered at the subject site are similar to those problems encountered elsewhere on Trinidad and Humboldt Islands. Therefore, the proposed solution is similar to those repairs previously approved by the Commission.

Also, the City of Huntington Beach local coastal program ("LCP") is effectively certified. However, the proposed project is located seaward of the mean high tide line and thus is within the Coastal Commission's original permit jurisdiction area. Therefore, pursuant to Section 30519 of the Coastal Act, the LCP does not apply to the proposed project. The standard of review for the proposed development are the Chapter 3 policies of the Coastal Act.

I. MOTION, STAFF RECOMMENDATION, AND RESOLUTION OF APPROVAL.

MOTION: I move that the Commission approve Coastal Development Permit No. 5-01-359 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a YES 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

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affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves 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.

II. STANDARD CONDITIONS:

- 1. <u>Notice of Receipt and Acknowledgment.</u> 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. <u>Compliance With Plans Submitted</u>

The permittee shall undertake development in strict conformance with the proposal and plans as set forth in the application for permit, subject to any special conditions set forth in this coastal development permit approval. Any proposed changes to or deviations from the approved plans shall be reported in the Executive Director. No changes to the approved plans shall occur without a Communication amendment to true coastal development permit unless the Executive Director determines that no amendment is required.

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2. Construction Responsibilities and Debris Removal

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

- (a) No construction materials, debris, waste, oil or liquid chemicals shall be placed or stored where it may be subject to wave erosion and dispersion, stormwater, or where it may contribute to or come into contact with nuisance flow;
- (b) Any and all debris resulting from construction activities shall be removed from the site within 10 days of completion of construction;
- (c) No machinery or construction materials not essential for project improvements shall be allowed at any time in the intertidal zone or in the harbor;
- (d) Sand from the beach or harbor, cobbles, or shoreline rocks shall not be used for construction material;
- (e) In order to control turbidity a geotextile fabric shall be installed in the area where the toe stone will be placed prior to placement of the toe stone;
- (f) Toe stone shall be placed, not dumped, using means to minimize disturbance to bay sediments and to minimize turbidity;
- (g) If turbid conditions are generated during construction a silt curtain shall be utilized to minimize and control turbidity to the maximum extent practicable;
- (h) 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;
- (i) A protective barrier shall be utilized to prevent concrete and other large debris from falling into the harbor;
- (j) All debris and trash shall be disposed of in the proper trash and recycling receptacles at the end of each construction day;
- (k) The discharge of any hazardous materials into the harbor or any receiving waters shall be prohibited.

3. Eel Grass Mitigation

Α. Compliance with Eelgrass Mitigation Plan. The applicant shall implement and comply with the recommendations and mitigation contained within *Eelgrass Survey* Report conducted October 22, 1998 and November 5-6, 1998 dated January 1999 and updated April 1999 prepared by Tetra Tech, Inc. of Pasadena, CA and Eelarass Mitigation and Eelgrass Transplant Report, Humboldt Island & Trinidad Island Bulkhead Repair Project, Huntington Beach, California dated August 2000 prepared by Tetra Tech, Inc. of Pasadena, California as they pertain to the development that is the subject of this coastal development permit. The mitigation plan shall be undertaken in full compliance with the "Southern California Eelgrass Mitigation Policy" (SCEMP) Revision 8 (except as modified by this condition) adopted by the National Marine Fisheries Service. All impacts to eelgrass habitat shall be mitigated at a ratio of 1.2:1 (mitigation:impact). The exceptions to the required 1.2:1 mitigation ratio found within SCEMP shall not apply. Eelgrass from the donor site(s) shall be transplanted at the proposed transplantation location(s) prior to commencement of the development authorized under this parmit. Any changes to the approved mitigation plan, including but not limited to changes to the monitoring program to ensure success of the eelgrass mitigation site, shall require an amendment to this permit from the Coastal Commission or written concurrence from the Executive Director that the changes do not require a permit amendment.

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- Pre-construction Eelgrass Survey. A valid pre-construction eelgrass 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 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 new eelgrass survey for the review and approval of the Executive Director within five (5) working days of completion of the new eelgrass survey and in any event no later than fifteen (15) working days prior to commencement of construction. If the new survey identifies, within the proposed project area, any eelgrass which is not documented in the eelgrass survey described in Special Condition No. 3.A. above, the newly identified eelgrass shall be transplanted prior to commencement of construction at a 1.2:1 ratio at the same transplantation locations identified in the eelgrass mitigation plan described in Special Condition No. 3.A. above. The transplantation shall occur consistent with all provisions of the mitigation plan described in Special Condition 3.A.
- C. Post-construction Eelgrass Survey. After completion of project construction, the applicant shall survey the project site to determine if any eelgrass was adversely impacted. This post-construction survey shall be completed in the same month as the pre-construction survey during the next growing season immediately following the completion of construction within coastal waters. The survey shall be prepared in full compliance with the "Southern California Eelgrass Mitigation Policy" Revision 8 (except as modified by this 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 post-construction 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 1.2:1 ratio at the transplantation site and in accordance with the mitigation plan described in Special Condition No. 3.A. above.

4. **Pre-Construction Caulerpa taxifolia Survey**

- Α. 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 applicant shall undertake a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the presence of the invasive alga Caulerpa taxifolia. The survey shall include a visual examination of the substrate.
- Β. 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:

Β.

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- 1. for the review and approval of the Executive Director; and
- to the Surveillance Subcommittee to 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. Unless the Executive Director otherwise determines, if the survey identifies any Caulerpa taxifolia within the project area, the applicant shall submit to the Commission an application for an amendment to this permit requesting authorization to implement measures formulated to avoid impacts that the proposed development might have that could result in the dispersal of Caulerpa taxifolia. The applicant shall 1) refrain from commencement of the project until the Commission acts on the amendment application, and 2) upon approval by the Commission of the amendment application, implement the approved mitigation measures in the manner and within the timeframe(s) specified in the Commission's approval.

5. Public Rights

The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that exist or may exist on the property. The permittee shall not use this permit as evidence of a waiver of any public rights that may exist on the property.

6. Coastal Development Permit – Eelgrass and Soft Bottom Habitat Mitigation

- A. This coastal development permit does not serve as a coastal development permit approval for the implementation of the proposed eelgrass mitigation plan contained in *Eelgrass Mitigation and Eelgrass Transplant Report, Humboldt Island & Trinidad Island Bulkhead Repair Project, Huntington Beach, California* dated August 2000 prepared by Tetra Tech, Inc. of Pasadena, California. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit written evidence, subject to the review and approval of the Executive Director, that a coastal development permit has been issued and is valid for the implementation of the eelgrass mitigation plan required in Special Condition 3 above. The eelgrass transplant shall occur prior to commencement of the development authorized under this permit.
- B. This coastal development permit does not serve as a coastal development permit approval for the implementation of the proposed soft bottom habitat mitigation contained within Soft Bottom Mitigation Plan, Humboldt Island and Trinidad Island Bulkhead Repair Project, Huntington Beach, California dated April 2000 prepared by Tetra Tech, Inc. of Pasadena, California. The mitigation shall commence prior to or concurrent with the proposed bulkhead repair and enhancement. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit written evidence, subject to review and approval of the Executive Director, that: 1) Coastal Development Permit 5-01-020 has been issued and is valid for the implementation of the soft bottom habitat mitigation plan required by Special Condition 7 below; and 2) as required in Special Condition 7 below, the applicant

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demonstrates participation in the implementation of the mitigation project to be constructed under Coastal Development Permit 5-01-020.

7. Compliance with Soft Bottom Habitat Mitigation Plan

The applicant shall implement and comply with the recommendations and mitigation contained within *Soft Bottom Mitigation Plan, Humboldt Island and Trinidad Island Bulkhead Repair Project, Huntington Beach, California* dated April 2000 prepared by Tetra Tech, Inc. of Pasadena, California as they pertain to the development that is the subject of this coastal development permit. The proposed soft bottom mitigation shall be implemented prior to or concurrent with the proposed bulkhead repair and enhancement. Any changes to the approved mitigation plan, including but not limited to changes to the monitoring program to ensure success of the mitigation site, shall require an amendment to this permit from the Coastal Commission or written concurrence from the Executive Director that the changes do not require a permit amendment.

8. Legal Interest

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, written documentation demonstrating that it has the legal ability to carry out the proposed project and all conditions of approval of this permit.

9. Anchor Management Plan

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, a plan for the avoidance of adverse impacts upon eelgrass due to the placement of anchors utilized by barges in construction of the proposed project. The plan shall be prepared by a qualified professional and shall include the following:
 - 1. The plan shall demonstrate that the use of anchors by barges utilized in the proposed project will avoid impacts upon eelgrass beds.
 - 2. The plan shall include, at a minimum, the following components: a map anowing the proposed location of barges and anchors with respect to existing eelgrass beds.
- **B.** The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

10. Regional Water Quality Control Board Approval

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, applicant shall provide to the Executive Director a copy of a permit issued by the Regional Water Quality of Control Board for the proposed project, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the Regional Water Quality Control Board. Such changes shall not

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be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

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

The proposed project is located on Trinidad Island in Huntington Harbour, City of Huntington Beach, Orange County (Exhibit 1 and 2). Trinidad Island is an artificial island surrounded by a cast in place, concrete seawall/bulkhead constructed in the 1960's. The island is developed primarily with single family residences. The proposed project includes one bulkheaded property which is contiguous with adjacent bulkheaded properties, all of which are located seaward of the first public road.

The proposed project consists of the repair and enhancement of an existing bulkhead. The repairs and enhancements will entail installing a vinyl sheet pile 1 foot 7 inches seaward of the existing bulkhead and filling the voids between the bulkhead and sheet pile, under the bulkhead and around the existing bulkhead foundation support pilings with concrete and grouting. In addition, rock slope protection (a.k.a. toe stone) will be placed at a 2(h) to 1(v) slope seaward of the existing bulkhead. A layer of geotextile fabric will be placed beneath the proposed toe stone to prevent the toe stone from sinking into the bay mud (Exhibit 3). The applicant also proposes to mitigate for impacts upon eelgrass with an eelgrass restoration project near the Anaheim Bay National Wildlife Refuge (Exhibit 10). In addition, permanent impacts to soft bottom bay habitat will be mitigated by participating in the restoration of a tidal mud flat at the Bolsa Chica Ecological Reserve (Exhibit 10).

The following table details the length of bulkhead involved, the length of sheet pile installed, the quantity of toe stone to be placed, the width of the proposed toe stone from the existing bulkhead and the quantity of eelgrass and soft bottom habitat impacted and mitigated :

Site Address	Tract #	Lot #	Bulkhead Length (ft)	Max. Sheet Pile Length (ft)	Max. Sheet Pile Footprint* (ft ²)	Adj. Sheet Pile Impact Area** (ff ²)	Qty. Toe Stone (CY)	Width of Toe Stone (ft)	Temp. Toe Stone Impact (ft ²)	Eelgrass Impacted (ft ²)	Eelgrass Mitigated (ft ²)	Softbottom Impacted (ft ²)	Softbottom Mitigated (ft ²)
3432 Venture Dr.	8636	6	64	36	46.5	29.1	20	6	384	37	44.4	29.1	58.2
Total (this report)			64	36	46.5	29.1	20		384	37	44.4	29.1	58.2
Total of all applications to date 3254 52148 2488.7 2986.4 1650 330						3300							

indicate the proposed project will involve 64 linear feet of bulkhead. Thirty six (36) linear feet of anyl sheet pile (discontinuous-not a single length) will be installed, permanently impacting 29.1 square feet of soft bottom habitat, based on the average footprint of the filled area minus an area

^{*} Based on original calculations using maximum 1' 7" width of sheet pile impact.

^{**} Based on average between 1'-1" and 1'- 7" (1'- 3.5") minus the unimpacted area due to corrugation of sheet pile (50% of sheet pile width = 3.5") (37.4 square feet); minus area of overspilled concrete (8.3 square feet in this case).

of existing overspilled concrete along the base of the existing bulkhead (see table above and footnote). In addition, a total of 20 cubic yards of rock slope protection will be placed against the toe of the seawall resulting in 384 square feet of temporary soft bottom impacts. In addition, a total of 37 square feet of eelgrass will be impacted. A total of 58.2 square feet of soft bottom mitigation will occur at the Bolsa Chica Ecological Reserve (Exhibit 10). In addition, a total of 44.4 square feet of eelgrass mitigation will occur near the Anaheim Bay National Wildlife Refuge (Exhibit 10).

As noted above, the sheet pile and concrete/grout backfill between the sheet pile and bulkhead will permanently impact 29.1 square feet of soft bay bottom habitat in the project area. The applicant is proposing to mitigate the loss of the soft bottom habitat by restoring a tidal mud flat near the intersection of Pacific Coast Highway and Warner Avenue in the Bolsa Chica Ecological Reserve (Exhibit 10). The mitigation will be carried out concurrent with the soft bottom habitat mitigation necessary under the other associated Humboldt Island bulkhead reinforcement projects. A separate coastal development permit [5-01-020] has been processed for the soft bottom habitat mitigation project which encompasses all of the soft bottom mitigation necessary for the coastal development permits for bulkhead reinforcements on Humboldt Island [5-98-179, 5-98-201, 5-98-443, 5-98-444, 5-99-031, 5-99-032, 5-99-108, 5-99-473, 5-01-358 (pending)] and for those at Trinidad Island [5-00-389, 5-00-390 and 5-01-359(this application)] which have been processed by the Commission to date. Additional mitigation area is available at the Bolsa Chica mitigation site for future bulkhead repair projects which may have wetland impacts and which may require wetland mitigation.

The toe stone will impact 37 square feet of eelgrass in the project area. The applicant is proposing to mitigate the loss of the eelgrass by transplanting (from the subject site and other donor sites) 44.4 square feet (1.2:1 mitigation to impact ratio) of eelgrass to a location near the Anaheim Bay National Wildlife Refuge. The mitigation will be carried out concurrent with the eelgrass mitigation necessary under the other associated Humboldt and Trinidad Island bulkhead reinforcement projects. A separate coastal development permit will need to be processed to address the eelgrass mitigation project which is planned to encompass all of the eelgrass mitigation necessary for all of the coastal development permits processed by the Commission to date for bulkhead reinforcements which have eelgrass impacts on Trinidad Island [5-00-401, 5-00-390, and 5-01-359 (this application)] and Humboldt Island [5-99-030, 5-99-031, 5-99-032, 5-99-108].

The proposed bulkhead repair and enhancement is necessary to protect the existing bulkhead and the residential structures landward of the bulkhead. The existing bulkhead is a reinforced concrete cast in place structure supported on vertical and battered (i.e. angled) timber piles built in the 1960's. The applicant has stated that this bulkhead was designed with toe stone placed seaward of the footing at a slope of 3(h) to 1(V). Due to the size and weight of the formerly present toe stone, the protective stones have either sunk into the bay mud or migrated away from the bulkhead. In absence of the toe stone, the unconsolidated fine silty and sandy sediments have easily eroded due to tidal currents, propeller wash from recreational boats, maintenance dredging, and the activity of burrowing fish (e.g. the specklefin midshipman). This erosion has undermined the bulkhead footing, exposing the existing untreated timber piles which provide the primary vertical and lateral support for the existing bulkhead. Marine boring organisms have damaged some exposed piles and the activities to destabilize the existing bulkhead.

The proposed slope protection toe stone will consist of 8-inch diameter or smaller quarry waste with a mixture of particles ranging from sand to stones less than 8 inches in diameter. The coastal engineer has stated that this type of toe stone will not migrate or accrete to other areas under the hydrodynamic conditions at the subject site (see Appendix A for reference to engineering study).

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Therefore, the proposed solution will not replicate the problems associated with the previous protective toe stone structure.

B. <u>Shoreline Protective Devices</u>

Section 30235 of the Coastal Act states:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

The proposed development involves structural reinforcements to protect an existing bulkhead necessary to protect existing homes. Trinidad Island is located in Huntington Harbour. At the subject site the slope seaward of the bulkhead has eroded, creating a gap between the footing of the bulkhead and the bottom of the harbor floor. This has allowed water to enter behind (i.e. landward of) the bulkhead and undermine the bulkhead foundation. Further, the gap and erosion has exposed the bulkhead's supporting timber piles to deterioration from burrowing marine organisms. Elsewhere in the harbor, damage to the supporting timber piles has caused the bulkhead to begin to collapse. At the subject site, the timber piles have not yet been extensively damaged, but will deteriorate over time if they remain exposed, causing the bulkhead to sag and/or collapse. If protective measures are not implemented at this stage, additional damage to the bulkhead would result, causing failure of the bulkhead and damage to the structures, including houses, located landward of the bulkhead. The proposed development is designed to shore the existing bulkhead, repair the damage, and prevent similar deterioration in the future.

The proposed project involves the fill of coastal waters with a sheet pile, concrete/grout backfill between the sheet pile and the bulkhead, and with toe stone. The purpose of the proposed fill is to protect existing structures, which is not one of the eight allowable uses enumerated under section 30233 of the Coastal Act. However, as stated in the policy above, Section 30235 of the Coastal Act requires the Commission to approve revetments and other similar structures provided that such structures are for the purpose of protecting existing structures and provided that the structures are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. The proposed reinforcements to the existing bulkhead/seawall are the types of structures described in Section 30253 because they are protective devices that minimize shoreline erosion (a natural shoreline process) that is for the purpose of protecting existing structures (the single family residence located landward of the bulkhead). In addition, the proposed project is occurring within an urban harbor at a location isolated from the nearest open coastal shoreline and longshore littoral sand transport mechanisms. The proposed sheet pile and backfill have been designed to minimize the amount of fill of coastal waters. Furthermore, bathymetric conditions were evaluated at the site in order to establish the minimum amount of toe stone necessary to protect the bulkhead and to minimize the amount of soft bay bottom covered which may contribute to shoreline sand supply. Therefore, in this case, by m¹ imizing the area of soft bay bottom covered, the proposed project mitigates adverse in parts on local unoreline sand supply. Accordingly, the proposed project is approvable under section 30235 of the Coastal Act rather than section 30233 of the Coastal Act.

The applicant's coastal engineer indicates that the proposed project is the least environmentally damaging feasible alternative. Section 30108 of the Coastal Act states that "feasible" means

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capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors. Alternatives considered were: 1) no project; 2) soft bottom fill; 3) placement of cement slurry to form a protective concrete shield; 4) placement of course rock; 5) installation of a deepened plastic sheet pile which would extend below the depth of scour, instead of the proposed toe stone, to prevent the formation of voids underneath the bulkhead; 6) landward placement of a sheet pile; 7) replacement of the bulkhead in the same location; and 8) minimizing the amount of toe stone placed in front of the bulkhead.

According to the applicant, the no project alternative would not be the least environmentally damaging feasible alternative because without the project the bulkhead at the subject site would loose structural integrity, causing the bulkhead to fail. If the bulkhead were allowed to fail, it would collapse into the harbor. Debris from the collapsed bulkhead would likely fall upon sensitive marine habitat resulting in impacts upon that habitat. In addition, sediment released from behind the collapsed bulkhead would enter the water column causing turbidity and potentially smothering eelgrass beds which exist in the project area. Furthermore, debris from the collapsed bulkhead would have less impact than the no project alternative because impacts upon eelgrass and any permanent impacts upon soft bottom habitat will be controlled and mitigated under the proposed project while such impacts from the no project alternative would be uncontrolled and much more extensive.

The second alternative is to use soft bottom fill to fill in the gap forming at the base of the bulkhead/seawall. Such soft bottom fill could come from dredging projects undertaken in the harbor, similar to the routine dredging projects in Newport Bay which dispose of suitable dredge material in front of the bulkheads in Newport Bay to protect those bulkheads. In Newport Bay, the bulkheads are designed without the timber pile foundation used in Huntington Harbor which must be protected using toe stone. Unlike in Huntington Harbour, the bulkhead/seawalls in Newport Bay are not reliant upon a protective swath of toe stone. Therefore, the use of soft bottom fill in Newport Bay provides adequate protection to the bulkhead. Meanwhile, the threat of damage to the bulkhead/seawall system in Huntington Harbour due to erosion and undermining is much greater at the project sites than in Newport Bay due to the differences in the design of the bulkhead systems in each harbor. The bulkheads in Huntington Harbour were designed with timber piles which provide the foundation for the concrete bulkhead/seawall. A protective swath of toe stone at the base of the bulkhead/seawall was part of the design. The protective toe stone is necessary to ensure that soil does not erode from around the timber pilings exposing them to marine boring organisms. The applicant has stated that the soft bottom fill alternative is not a feasible solution in Huntington Harbour because it would replicate the existing condition. Once placed against the footing, erosive forces would rapidly erode the unconsolidated fine silty and sandy sediments in the same fashion that the existing sediment has eroded. In addition, if soft bottom fill were used to protect the subject sites, re-nourishment of the soft bottom fill would need to occur frequently. This frequent re-nourishment would cause frequent disturbance to marine habitat and any eelgrass which may exist in the vicinity of the project site. Whereas, the use of toe stone is anticipated to provide protection for several decades, thus reducing the frequency of disturbance to the site. Therefore, the proposed solution is less environmentally damaging than the second alternative. ly would not promotive shoring that is necessary Furt' ermore, the placement of soft botto: to stabilize the existing bulkhead, thereby leading to the negative impacts associated with the no project alternative, as discussed above.

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The third alternative, placement of cement slurry for slope protection, would not be less environmentally damaging than the proposed solution. It is anticipated that the proposed toe stone will provide a suitable substrate for colonization by marine organisms. In addition, over time it is anticipated by the applicant that sediment will settle upon the proposed toe stone. Provided that there is adequate sunlight, it is also anticipated by the applicant that conditions may allow colonization of the toe stone by eelgrass. However, the use of a cement slurry for slope protection would not provide a suitable substrate for colonization by marine organisms. Therefore, the proposed solution is less environmentally damaging than the third alternative. Furthermore, the placement of cement slurry only would not provide the shoring that is necessary to stabilize the existing bulkhead, thus leading to the negative impacts associated with the no project alternative, as discussed above.

The fourth alternative, placement of course rock only, would also have greater environmental impact than the proposed solution. The placement of course rock, instead of the proposed mixture of 8-inch diameter or smaller quarry waste, would replicate the problems associated with the previous protective structure. Due to the presence of unconsolidated fine silty bay mud and existing hydrodynamic conditions, course rock would tend to sink into the bay mud or migrate from the slope targeted for protection. Accordingly, the course rock would need to be replaced over time, with the attendant construction related impacts upon the marine environment. Therefore, the proposed solution is less environmentally damaging than the fourth alternative. Furthermore, the placement of course rock only would not provide the shoring that is necessary to stabilize the existing bulkhead, thus leading to the negative impacts associated with the no project alternative, as discussed above.

The fifth alternative, placement of a deepened sheet pile in place of the proposed shallower sheet piles and toe stone, is not feasible for several reasons. First, deepened sheet piles would intersect the existing battered (i.e. angled) timber piles which angle seaward under the bulkhead below the harbor floor, cutting into those support piles (see Exhibit 9 for view of existing bulkhead and timber pile configuration). To avoid this, the deepened sheet pile would have to be located substantially seaward in order to avoid intersecting the battered timber piles. The proposed shallower vinyl sheet pile minimizes the seaward encroachment of the structure to 1 foot 7 inches seaward of the footing of the existing bulkhead. This distance is the minimum necessary to clear the footing and to provide structural mass to shore the existing bulkhead. Second, vinyl sheet piles are not long enough to extend deep enough into the harbor bottom. Steel sheet piles, which are long enough, would be subject to corrosion. Therefore, the fifth alternative is not a feasible solution to the present problem nor is it the least environmentally damaging alternative.

The sixth alternative would involve the installation of a sheet pile landward of the face of the existing bulkhead and then removing the portion of the existing bulkhead seaward of the newly installed sheet pile. The applicant has stated that this alternative is not technically feasible because the foundation slab for the existing bulkhead extends at least 10 feet landward of the face of the existing bulkhead to a point underneath existing patios and houses which are built upon the lot. If a sheet pile were installed landward of the existing bulkhead the sheet pile would need to penetrate through the foundation slab of the existing bulkhead. First, a plastic or steel sheet pile is not strong enough to penetrate the concrete foundation slab of the bulkhead. In addition, even if a strong enough to penetrate the concrete foundation slab, the portion of one existing bulkhead seaward of the newly installed sheet pile would loose structural integrity and collapse into the harbor. Any methods used to temporarily stabilize the bulkhead seaward of the sheet pile would require the placement of structures in the water, resulting in impacts similar or greater than

the proposed project. Therefore, the sixth alternative is neither technically feasible or the least environmentally damaging feasible alternative.

Similar to the sixth alternative, the seventh alternative -replacement of the existing bulkhead in the same location- would require extensive shoring both in the water and on land to prevent the damage and/or collapse of the residential structure located immediately landward of the bulkhead. The in-water shoring mechanisms would disturb soft bottom habitat and impact eelgrass beds, similar to or greater than the proposed project. In addition, the wholesale replacement of the bulkhead would involve a much larger scale construction project. Demolition of the existing bulkhead would pose a significant risk of upset to adjacent properties. In addition, with such a large scale project, there would be a significant risk of release of demolition and construction debris to the aquatic environment with associated impacts. Therefore, the seventh alternative is not the least environmentally damaging feasible alternative.

The eighth alternative, which is the proposed project, is to minimize the impact of the proposed design by minimizing the seaward encroachment of the bulkhead and by minimizing the amount of toe stone placed in front of the bulkhead. Minimizing the seaward encroachment of the bulkhead and the width of the toe stone from the bulkhead also minimizes permanent impacts upon soft bottom habitat and eelgrass in the project vicinity. In addition, the applicant is proposing to mitigate for the loss of eelgrass and soft bottom habitat. Therefore, the proposed project is the least environmentally damaging feasible alternative.

The proposed bulkhead repair and reinforcement is necessary to protect an existing bulkhead and single family residences. In addition, the proposed development mitigates adverse impacts upon shoreline sand supply and is the least environmentally damaging feasible alternative. Therefore, the Commission finds that the proposed project is consistent with Section 30235 of the Coastal Act.

C. <u>Marine Habitat</u>

Section 30230 of the Coastal Act requires that marine resources shall be maintained, enhanced, and where feasible, restored. 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 30230 of the Coastal Act requires that marine resources be protected and that the use of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters. The proposed deposition of material above and below the mean high tide line may impact marine resources. Therefore, mitigation measures are necessary to protect the biological productivity of coastal waters.

1. Soft Bottom Habitat

The proposed development is occurring in the waters of Huntington Harbour. Except at extreme low tides, the development area would be underwater. The proposed placement of toe stone will

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result in the coverage of approximately 384 square feet of vegetated and unvegetated soft bottom habitat. These soft bottom areas contain infaunal clam beds consisting of wavy chione, California chione, and common littlenecks. The applicant estimates that while the toe stone will bury the existing soft bottom habitat and clam beds, the toe stone will be re-colonized by marine organisms within three to five years.

The California Department of Fish and Game (CDFG) has reviewed the proposed development. In their memorandum to Commission staff dated July 6, 1999 regarding the similar project at Humboldt Island, CDFG stated that the proposed impact upon unvegetated soft bottom habitat will be short term and will not be significant (see Exhibit 5). Another letter from CDFG dated August 31, 2000, states that the applicants proposed mitigation will be adequate to address project impacts. Mitigation for impacts upon vegetated soft bottom habitat are discussed below. Further, the subject site is not designated in the certified local coastal program as an environmentally sensitive habitat area.

In addition to the temporary impact upon soft bottom caused by placing the toe stone, the proposed project will have permanent impacts upon soft bottom habitat resulting from the installation of the sheet pile and backfilling the gap between the sheet pile and bulkhead with concrete and grout. The applicant is proposing to mitigate for the permanent loss of this soft bottom habitat. The proposed mitigation plan is contained within the document submitted with the application titled *Soft Bottom Mitigation Plan, Humboldt Island and Trinidad Island Bulkhead Repair Project, Huntington Beach, California* dated April 2000 prepared by Tetra Tech, Inc. of Pasadena, California. As it pertains to the development that is the subject of this staff report, the proposed project will permanently fill 29.1 square feet of soft bay bottom. The applicants are proposing to mitigate this impact with 58.2 square feet of tidal wetlands to be restored in the Bolsa Chica Ecological Reserve at a location near the intersection of Warner Avenue and Pacific Coast Highway in Huntington Beach (Exhibit 10). This mitigation site is approximately 1 mile southwest of the proposed impact area at Trinidad Island. The proposed ratio of mitigation is 2:1 mitigation to impact.

On-site wetland restoration is not feasible because the impact area is a bulkheaded harbor area where there are no opportunities to create new wetlands or restore former wetlands. Meanwhile, the proposed restoration site is within the Bolsa Chica Ecological Reserve which is an open space area managed as a passive recreation and wildlife habitat area. The impact site and restoration site are hydraulically connected to one another via Huntington Harbour and the Bolsa Chica wetlands complex. Therefore, the impact site and restoration site are geographically close and part of the same ecological system. The Bolsa Chica Ecological Reserve area contains wetlands and historic wetland habitat that has been impacted over time by human development. Restoration of the wetlands within this area would increase the function and value of the habitat within the reserve.

As noted above, the habitat to be impacted at the subject site consists of soft bottom containing infaunal clam beds consisting of wavy chione, California chione, and common littlenecks. These species are common to soft bottom habitat throughout the harbor. No sensitive wildlife species are known to occur within this habitat at the site. Meanwhile, the proposed restoration would restore wetland habitat in an area known to be high in plant and animal species diversity, including rare and enclangered species. Therefore, the restoration of habitat at Bolsa Chica Ecological Reserve would be beneficial to a wide variety of wildlife. Any restored wetland habitat in a bulkheaded harbor area similar to the impact area would not be expected to attract the diversity and abundance of wildlife that the proposed restoration site would. The applicant anticipates a high

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probability of successful restoration at the Bolsa Chica site because the project would restore former and degraded wetland areas. Commission staff have reviewed the restoration plan and agree with the applicant's expectation of success. Accordingly, the Commission is requiring a mitigation to impact ratio of 2:1 for the proposed impacts. This mitigation ratio is similar to that required by CDPs 5-98-179, 5-98-201, 5-98-443, 5-98-444, 5-99-031, 5-99-032, 5-99-108, 5-99-473, 5-00-389, and 5-00-390. A higher mitigation ratio, such as 4:1, has not been required due to the anticipated success of the restoration and the high habitat value that the restored wetland area will have compared with the impact area.

The proposed mitigation will occur in conjunction with other soft bottom mitigation required due to wetlands impacts caused by bulkhead reinforcement projects elsewhere on Trinidad Island [5-00-389, 5-00-390 and 5-01-359 (this application)] and Humboldt Island [5-98-179, 5-98-201, 5-98 143, 5-98-444, 5-99-031, 5-99-032, 5-99-108, 5-99-473, 5-01-358 (pending)] which have been approved or are pending approval by the Commission. In total, 1,283.6 square feet of soft bottom habitat will be impacted by the bulkhead reinforcement projects on Humboldt Island [5-98-179, 5-98-201, 5-98-179, 5-98-201, 5-98-444, 5-99-031, 5-99-032, 5-99-032, 5-99-108, 5-99-473, 5-01-358 (pending)] and 366.4 square feet of soft bottom will be impacted on Trinidad Island [5-00-389, 5-00-390 and 5-01-359 (this application)] for a total of 1,650 square feet of impact. In total 3,300 square feet of mitigation will be implemented in the Bolsa Chica Ecological Reserve for the proposed impacts by projects on Trinidad and Humboldt Islands.

The proposed mitigation at the Bolsa Chica Ecological Reserve will consist of removing concrete debris from a former wetland, grading the area to match site elevations of adjacent functioning wetlands, and restoring tidal influence to the graded area to create a tidal wetland. The Commission has approved Coastal Development Permit 5-01-020 for the construction of 5,358 square feet of wetland mitigation. This quantity, 5,358 square feet, exceeds the amount of total mitigation presently required (3,300 square feet) by the coastal development permits noted above. Subject to a coastal development permit, and in accordance with the procedures and the restrictions outlined in CDP 5-01-020, the remainder area will continue to be available as mitigation for future bulkhead reinforcement projects in Huntington Harbour which cause wetland impacts. As approved by CDP 5-01-020, the mitigation must be undertaken prior to or concurrent with the commencement of the bulkhead reinforcement project. The mitigation program includes a 5 year monitoring period, with yearly monitoring and reporting during that period. The proposed soft bottom mitigation has been reviewed and approved by the California Department of Fish and Game (Exhibit 5).

The proposed mitigation is necessary to mitigate permanent losses to soft bottom habitat. Therefore, the Commission imposes Special Condition 7 which requires the applicant to implement the proposed soft bottom mitigation plan. The mitigation must occur prior to or concurrent with commencement of construction of the bulkhead reinforcements. Any deviations from the plan must be reported to the Executive Director and may require an amendment to the coastal development permit.

A valid coastal development permit must be in place for the wetland restoration project so that the restoration can take place prior to or concurrent with commencement of the proposed bulkhead reparrent. The applicant is proposing to participate in the wetland mitigation project to be constructed under CDP 5-01-020 (which implements the wetland restoration project described in Special Condition 7). Hence, there is presently a valid coastal development permit [5-01-020] to implement the proposed restoration project. However, CDP 5-01-020 has several special conditions which must be satisfied before the permit can be issued. In addition, there are

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procedures outlined in the special conditions of CDP 5-01-020 which describe how the applicant must demonstrate participation in the wetland mitigation project. For instance, the applicant must make arrangements with Tetra Tech, Inc. to reserve 58.2 square feet of the 5,358 square foot mitigation area as mitigation for the impacts to wetlands that will occur under this project. Then Tetra Tech, Inc. must notify the Executive Director of the Commission that 58.2 square feet have been so reserved. In order to assure that the applicant undertakes the work in accordance with the requirements of CDP 5-01-020, the Commission imposes Special Condition 6.B.

2. 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 water fowl foraging. Sensitive species, such as the California least tern, a federally listed endangered species, utilize eelgrass beds as foraging grounds.

An eelgrass survey titled *Eelgrass/Caulerpa Taxifolia Survey for 3432 Venture Drive, Isaac Azoulay* dated August 31, 2001 prepared by Tetra Tech, Inc. of Pasadena, CA indicates that eelgrass is present in scattered patches around Trinidad Island and within the project area (Exhibit 4). In the project area there is approximately 48.8 square feet of eelgrass within 32 feet of the face of the bulkhead. According to the applicant's analysis, the proposed project will directly impact 37 square feet of eelgrass when the geotextile fabric and toe stone are placed to protect the bulkhead.

Mitigation for impacts to eelgrass is necessary in order for the project to be consistent with Section 30230 of the Coastal Act. Therefore, the Commission imposes Special Condition 3. Special Condition 3 requires the applicant to implement an eelgrass transplantation and mitigation program in accordance with the proposed mitigation plan (i.e. *Eelgrass Mitigation and Eelgrass Transplant Report, Humboldt Island & Trinidad Island Bulkhead Repair Project, Huntington Beach, California*) and the Southern California Eelgrass Mitigation Policy.

The applicant is proposing to mitigate for the impacts upon 37 square feet of eelgrass by transplanting 44.4 square feet of eelgrass to a location approximately 1 mile upcoast of the site near the Anaheim Bay National Wildlife Refuge (Exhibit 10). As will be discussed more fully below, the proposed mitigation would occur contiguous with the eelgrass mitigation necessary to offset impacts upon eelgrass occurring from bulkhead reinforcement projects elsewhere on Trinidad Island [5-00-390 and 5-00-401] and Humboldt Island [5-99-030, 5-99-031, 5-99-032, 5-99-108]. In addition, the proposed eelgrass mitigation would add to eelgrass mitigation planted in the same area which was required under Coastal Development Permit 5-97-231 for the County of Orange's Sunset Harbor – Phase II Maintenance Dredging Project. The eelgrass mitigation plan is contained within *Eelgrass Mitigation and Eelgrass Transplant Report, Humboldt Island & Trinidad Ir 'and Bulkhead Repair Project, Huntington Beach, California* dated August 2000 prepared by

Lira Tech, Inc. of Pasadena, California which amends and builds upon the County of Orange's eelgrass mitigation plan titled *Eelgrass (Zostera marina) survey, impact assessment, and mitigation plan* dated December 1999 prepared for the County of Orange by Coastal Resources Management.

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Off-site eelgrass restoration has been selected rather than on-site restoration because restoration of eelgrass at the off-site location would be ecologically superior to the on-site alternative. The existing eelgrass bed which would be impacted is located in a bulkheaded harbor area that is heavily used for recreational boating purposes. Piers, docks and boats occupy the shallower sides of the channel adjacent to the bulkhead. These shallower depths are the on-site areas where bathymetric contours are most conducive to eelgrass restoration (eelgrass grows at shallower depths). Due to the presence of the piers, docks and boats, the shallow areas are shaded. Although eelgrass does grow adjacent to the bulkhead (hence the impact), the shading along the bulkhead limits the opportunity for eelgrass restoration on-site. In addition, propeller wash from boats would frequently disturb any restoration site in this area, further reducing the likelihood of a successful restoration.

Meanwhile, the proposed restoration site would be located approximately one mile from the impact site in an area adjacent to the Anaheim Bay National Wildlife Refuge which is an open space area managed as a passive recreation and wildlife habitat area. The proposed restoration site is hydraulically connected to the impact site via the Huntington Harbour channel. Therefore, the impact site and restoration site are geographically close and part of the same ecological system. Restoration of eelgrass beds at the proposed location would increase the function and value of the habitat adjacent to and within the refuge.

The eelgrass habitat to be impacted at the subject site consists of a few small patches adjacent to the bulkhead. Although the eelgrass at the subject site is considered valuable as a nursery for fish and as a foraging area, the intensity of use by sensitive wildlife such as the California least tern is likely very limited due to the heavy recreational boating use in the area. Whereas, the proposed restoration site would be subject to less frequent disturbance and is known to be high in plant and animal species diversity, including rare and endangered species such as the California least tern. Therefore, the restoration of eelgrass habitat adjacent to the Anaheim Bay National Wildlife Refuge would be beneficial to a wide variety of wildlife. Any restored eelgrass habitat on-site in the bulkheaded harbor area would not be expected to attract and be utilized by the diversity and abundance of wildlife that the proposed restoration site would.

At least 2 months have elapsed since the eelgrass survey was conducted in October 2001. In addition, pursuant to Standard Condition 2, the coastal permit will be valid for 24 months. Due to the ephemeral nature of eelgrass, the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game recommends that eelgrass surveys be conducted during the active growth phase of eelgrass (typically March through October in southern California). In addition, the resource agencies state that any eelgrass survey performed is only valid until the beginning of the next growing season (see Exhibit 8, "Southern California Eelgrass Mitigation Policy"). Therefore, based on this criteria, the eelgrass survey provided would become outdated if the work is not undertaken before March 2002. While the applicant is proposing to conform with the Southern California Eelgrass Mitigation Policy, it is not clear from the applicant's mitigation plan that a valid pre-construction eelgrass survey will be conducted. Therefore, the Commission imposes Special Condition 3.B. which requires that a valid pre-construction eelgrass survey be conducted within the boundaries of the proposed project and be undertaken during the period of active growth of celgrass (typically March through October). The pre-construction survey shall be completed prior to inning of construction and shall value until the next period of active growth. The Commission previously imposed similar conditions for pre-construction eelgrass surveys on Coastal Development Permits 5-97-230 and 5-97-230-A1 (City of Newport Beach), 5-97-231 (County of Orange), 5-97-071 (County of Orange), 5-99-244 (County of Orange-Goldrich-Kest-Grau), 5-98-179 (Kompaniez), 5-98-201 (Anderson), 5-98-443 (Whyte),

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5-98-444 (Barrad), 5-99-005 (Dea), 5-99-006 (Fernbach & Holland), 5-99-007 (Aranda et al.), 5-99-008 (Yacoel et. al.), 5-99-030 (Johnson), 5-99-031 (Lady Jr., et. al.), 5-99-032 (Appel et. al.), 5-99-108 (Pineda), 5-98-471 (Maginot), 5-99-472 (Bjork), 5-99-473 (Gelbard), 5-00-389 (Ashby et. al.), 5-00-390 (Burggraf et. al.), 5-00-401 (Baghdassarian et. al.), and 5-00-402 (Buettner et. al.). The pre-construction survey will confirm the location and boundary of the previously identified eelgrass beds and also locate any eelgrass beds not previously identified which will be impacted and which must be transplanted prior to the commencement of development. Such transplantation shall occur at a 1.2:1 ratio at the location identified in the eelgrass mitigation plan.

The applicant is proposing –and the Commission in requiring- the mitigation of impacts to eelgrass at a 1.2:1 mitigation to impact ratio. The rationale for requiring the applicant to plant 20% more eelgrass than would be impacted is: 1) to offset the temporal impact (typically 3 years) upon full fishery utilization of the restored eelgrass bed; and 2) to offset productivity losses during the eelgrass bed recovery period. Similarly, this rationale and ratio were developed and adopted as the "Southern California Eelgrass Mitigation Policy" by the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

The mitigation is to be monitored for a period of 5 years including three monitoring events the first year, followed by one monitoring event for the next 4 years. The applicant will submit monitoring reports to the Commission within 30 days of each monitoring event. Mitigation success and any needed remedial planting will be done in accordance with the Southern California Eelgrass Mitigation Policy. The mitigation requirements including monitoring, reporting and contingency measures are incorporated in Special Condition 3.

The proposed development will occur in areas adjacent to existing eelgrass beds. The proposed toe stone will be placed using a 40 foot by 50 foot barge mounted crane which will retrieve the material for placement from a nearby 40 foot by 60 foot barge upon which the material is staged. Construction activity, including barge anchoring, vessel propeller wash, and propeller contact with the harbor bottom could cause scarring to eelgrass beds. The applicant has stated that the anchors for the barges will be placed to avoid eelgrass. However, no anchor management plan was submitted. Therefore, Special Condition 9 requires the applicant to submit, prior to issuance of the permit, an anchor management plan for the review and approval of the Executive Director, which documents the location where anchors will be placed to avoid eelgrass beds.

Finally, even with the anchor management plan, construction activity could inadvertently impact eelgrass which was not proposed to be impacted. Therefore, the Commission finds that a post-construction eelgrass survey must be submitted to determine whether any eelgrass not proposed to be impacted was inadvertently impacted. Therefore, the Commission imposes Special Condition 3.C. Any eelgrass inadvertently impacted which was not proposed to be impacted must be mitigated under the proposed mitigation plan in the same manner as any planned eelgrass transplantation and mitigation – i.e. the same ratio of 1.2:1, the same transplantation site, same procedures, etc. The Commission required similar post-construction eelgrass surveys and mitigation for inadvertently impacted eelgrass in coastal development permit approvals 5-97-230, 5-97-231, 5-97-071, 5-99-244, 5-98-179, 5-98-201, 5-98-443, 5-98-444, 5-99-005, 5-99-006, 5-99-007, 5-99-030, 5-99-031, 5-99-032, 5-99-108, 5-98-471, 5-99-472, 5-99-473, -00-389, -30, 5-00, 01, and 5-00-402

There are at least 52 properties in Huntington Harbour (including the subject site) which require bulkhead repair and reinforcement and which would cause an impact to eelgrass. The total quantity of eelgrass to be impacted by bulkhead reinforcement projects on Trinidad and Humboldt

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Islands which have been approved or are pending before the Commission at this time (including the proposed project) is 2,488.7 square feet of impact to eelgrass [5-99-030, 5-99-031, 5-99-032, 5-99-108, 5-00-390, 5-00-401, 5-01-359]. Using the commonly required 1.2:1 mitigation to impact ratio for eelgrass (see Southern California Eelgrass Mitigation Policy), the total mitigation required would be 2,986.4 square feet of which 44.4 square feet would be as mitigation for the impacts to eelgrass that would occur under this permit [5-01-359]. Rather than undertaking an individual eelgrass mitigation project, the applicant proposes to participate in an upcoming effort by its agent, Tetra Tech, Inc., to consolidate all of the known-to-be-required eelgrass mitigation needs into a single larger project that would be undertaken and managed by a single entity. Similar to the wetland mitigation project described elsewhere in these findings, Tetra Tech, Inc. would set up an eelgrass mitigation 'bank'. Preliminarily, Tetra Tech, Inc. has planned to plant 3,600 square feet of eelgrass adjacent to the larger eelgrass transplant project being undertaken by the County as mitigation for their dredging project (CDP 5-97-231). A coastal development permit is needed to undertake the consolidated eelgrass mitigation program and to set up the eelgrass mitigation bank program¹. It should be noted that this discussion is not intended to and does not commit the Commission to any particular course of action with respect to such a future application. In addition, if for some reason, the above described eelgrass mitigation is not approved or the mitigation fails, the applicant bears the ultimate responsibility to ensure that the mitigation for the impacts caused by their project is ultimately carried out. Special Condition 7 clarifies this responsibility.

In order to assure that the proposed eelgrass mitigation plan is carried out in accordance with an approved, valid coastal development permit, the Commission imposes Special Condition 6.A., which requires the applicant to submit evidence of an approved valid coastal development permit for the eelgrass mitigation prior to issuance of this coastal development permit.

Also, the applicant is proposing to construct the development in a manner which minimizes impacts upon eelgrass by limiting the amount of toe stone placed and avoiding and minimizing permanent impacts upon soft bottom habitat by constructing the sheet pile walls in a manner which minimizes the footprint. If the applicant were to install an excessive quantity of toe stone in a wide swath adjacent to the bulkhead, additional impacts to eelgrass could occur. Meanwhile, if too little toe stone were installed the needed protection would not be achieved. In this case, the applicant has designed the development with the optimal quantity of toe stone (i.e. enough to provide protection while minimizing the quantity and footprint). The applicant has provided drawings depicting the development with the minimized footprint, resulting in minimization of eelgrass impacts and soft bottom habitat impacts. If the applicant were not to construct the development in accordance with



¹ In prior coastal development permit application submittals the applicant's agent, Tetra Tech, Inc. has suggested that coastal development permit authorization for the eelgrass mitigation required for the bulkhead repair projects had already been granted under Coastal Development Permit 5-97-231 (County of Orange). According to estimates made in May 2000, the County of Orange's dredging project would have impacted less eelgrass than was anticipated when the project was approved by the Commission in December 1997(i.e. year 2000 est. = 3,243 sq.ft. impacted vs. year 1997 est. 7,896 sq. ft. impacted). Therefore, less eelgrass mitigation for dredging impacts would have been required to be planted under that permit (3,892 sq. ft. mitigation required vs. 9,461 sq. ft. of mitigation approved). Theoretically, since less eelgrass was required to be planted for dredging impacts, there was 'excess' physical space available within the County's eelgrass mitigation area in which to plant the eelgrass mitigation necessary for the various bulkhead reinforcement projects. However, a recent submittal by the County indicates that actual eelgrass impacts from their dredging project amounted to 8,643 sq. ft. (rather than 7,896 sq. ft.) and that actual mitigation required amounts to 10,538 sq.ft. (rather than 9.461 sq.ft.). Therefore, there will be no 'excess' mitigation area under CDP 5-97-231 that may be used to mitigate the eelgrass impacts to be caused by the bulkhead repair projects. Rather, dependimon which entity will actually undertake the eelgrass mitigation, an amenc nent to CDP 5-97-231 or a new coastal developri. . will be required to cr. 3 0.600 sq. ft. eelarass mitigation bank that Tetra Tech, Inc. has proposed for bulkhead reinforcement projects which cause eelgrass impacts. Furthermore, it should be noted that even if there were excess mitigation area available under CDP 5-97-231, the excess area would not automatically be usable in a banking program. Rather, the Commission would have to approve the program beforehand. In addition, the application for such a program in the future would not be guaranteed to be approved.

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the plans submitted, additional impacts upon marine resources could occur. Therefore, the Commission imposes Special Condition 1 which requires the applicant to construct the development in accordance with the plans submitted. If any changes to the plans are necessary, Special Condition 1 requires the applicant to report the change to the Executive Director and to obtain an amendment to the coastal development permit or obtain a new coastal development permit, unless the Executive Director determines that no amendment or new permit is required.

3. Caulerpa taxifolia

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. Recently, a non native and invasive aquatic plant species, Caulerpa taxifolia (herein C. taxitolia), has been discovered in parts of Huntington Harbour (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 fishing².

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,

² References

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. Pawłowski, 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. Ridric e., Prieto, O. Delgado, and E. Bails steros. 1990 Science light and temperature responses of California toxifolia from the nortrivestern 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.

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

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. The proposed project would place sheet piling and rock in the harbor which would disturb the harbor bottom. In order to assure that the proposed project does not cause the dispersal of C. taxifolia, the Commission imposes Special Condition 4. Special Condition 4 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.

4. Conclusion

Special Condition 1 requires the applicant to conform with plans submitted, assuring that impacts upon marine resources are known, avoided, minimized and mitigated, as necessary. Special Condition 3 and 6 assures that impacts to eelgrass are mitigated in accordance with a coastal development permit. Special Condition 4 assures that the proposed development will not disperse non-native, invasive C. taxifolia resulting in displacement of eelgrass habitat. Special Conditions 6 and 7 assure that impacts to soft bottom habitat are mitigated in accordance with a coastal development permit. Special Condition 9 requires the applicant to submit an anchor management plan to demonstrate that construction staging related impacts upon eelgrass habitat will be avoided. As conditioned, the Commission finds that the proposed project is consistent with Section 30230 of the Coastal Act.

D. <u>Water Quality</u>

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,

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maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed project will involve the placement of toe stone consisting of 8-inch diameter or smaller quarry waste in coastal waters. If such materials are not placed in an appropriate manner, unconsolidated bay sediments may be disturbed causing turbidity in the water column. The applicant has stated that turbidity will be addressed by first installing the proposed geotextile fabric in the area where the toe stone will be placed and by placing, not dumping, the toe stone at the target location. The applicant has additionally stated that a silt curtain will be used in the event that turbid conditions are generated during construction. Since the proposed methods are required to assure compliance with Section 30231 of the Coastal Act, the Commission imposes Special Condition 2.

The proposed development will occur within and adjacent to coastal waters. Construction will require the use of heavy machinery and require the stockpiling of construction materials. In order to protect the marine environment from degradation, Special Condition 2 requires that all construction materials and machinery shall be stored away from the water. In addition, no machinery or construction materials not essential for the project improvements shall be placed in coastal waters. Local sand, cobbles, or shoreline rocks, not presently used in the existing development, shall not be used for backfill or construction material.

Similar development has previously been reviewed and approved by the California Regional Water Quality Control Board (RWQCB), Santa Ana Region. In this case an application has been submitted to the RWQCB (Exhibit 6). However, the RWQCB has not yet processed the application because the board is gathering similar applications so that they may be processed at the same time. In prior approvals for similar bulkhead repairs the RWQCB has waived waste discharge requirements for the projects. The Commission anticipates a similar approval for the proposed project. However, in order to assure that any changes to the project that the RWQCB may require are reported to the Executive Director and to assure that an amendment is sought for any such changes, the Commission imposes Special Condition 10 which requires the applicant to submit, prior to issuance of the permit, evidence from the RWQCB that an approval has been granted or that no approval is required.

Therefore, as the conditioned, the Commission finds the proposed development is consistent with Section 30231 of the Coastal Act.

E. <u>Public Access</u>

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,

(b) For purposes of this section, "new development" does not include:

(4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not a seaward of the location of the former structure.

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The subject site is located on Trinidad Island in Huntington Harbour. Much of Huntington Harbour consists of private communities. However, Trinidad Island is publicly accessible via a bridge from the mainland. On-street parking is the major source of public parking. In addition, the City of Huntington Beach certified LCP shows a public beach flanking Trinidad Lane at the entrance to Trinidad Island, as well as public fishing docks at the ends of Sundancer Lane and Typhoon Lane on Trinidad Island.

The proposed development involves structural reinforcements to an existing bulkhead which would result in seaward encroachment of the structure. Therefore, the proposed project is considered new development for the purposes of Coastal Act section 30212. However, the proposed project would be underwater. There is no beach area which provides lateral public access on-site upon which the proposed project would encroach. Further, there is no beach area off-site which provides public access that could be eroded as a result of changes in shoreline processes due to the proposed project.

Therefore, the Commission finds that no public access is necessary with the proposed development and that the proposed project is consistent with section 30212 of the Coastal Act.

F. Legal Ability to Undertake Development

Section 30601.5 of the Coastal Act requires states in part,

...prior to the issuance of a coastal development permit, the applicant shall demonstrate the authority to comply with all conditions of approval.

Certain portions of submerged lands within Huntington Harbour are owned in fee by the State of California ("State") and certain portions are not owned in fee by the State but are subject to the public trust easement. Any construction of protective devices upon submerged lands in Huntington Harbour that are owned in fee interest by the state requires a Protective Works Lease (PWL) from the California State Lands Commission (CSLC) (Exhibit 7a). The proposed development is occurring upon submerged lands in Huntington Harbour. In addition, the applicant has obtained a PWL from the CSLC which authorizes the applicant to use a 10 foot wide strip of land waterward of and immediately adjacent to that portion of the applicants property that faces upon the harbor (Exhibit 7b). Unless renewed, the lease will expire on August 31, 2011.

As noted above, the CSLC has granted a lease to the applicant which expires on August 31, 2011. Renewal of the lease is subject to the approval of the CSLC. In order to assure that the subject Coastal Development Permit is not utilized to assert that any public rights to the land upon which the development is occurring have been waived, the Commission imposes Special Condition 5 which states that the Coastal Commission's approval is not a waiver of any public rights which exist or may exist on the property.

In addition, the proposed project requires soft bottom habitat mitigation. This mitigation is proposed to occur off-site in the Bolsa Chica Ecological Reserve (Exhibit 10). While the reserve manager, the California Department of Fish and Game, has approved the proposed mitigation, the apple ants have rot submitted evidence that they have the legal ability to undertake the mitigation. Commission staff have spoken with personnel with the California Department of Fish and Game who have indicated that a legal agreement between the applicants and CDFG to allow the mitigation is being prepared, but has not yet been finalized. Accordingly, Special Condition 8

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would require that the applicants demonstrate their legal ability to undertake restoration at the proposed site in the Bolsa Chica Ecological Reserve.

In addition, the proposed project requires eelgrass habitat mitigation. This mitigation is proposed to occur off-site in the Huntington Harbour channel near the Anaheim Bay National Wildlife Refuge. While the County of Orange and California State Lands Commission have approved the proposed mitigation, the applicant has not submitted evidence that they have the legal ability to undertake the mitigation. Accordingly, the Commission imposes Special Condition 8 which would require that the applicant demonstrate their legal ability to undertake restoration at the proposed site in the Huntington Harbour channel.

As conditioned the Commission finds the proposed project is consistent with Section 30601.5 of the Coastal Act.

G. Local Coastal Program

The City of Huntington Beach local coastal program ("LCP") is effectively certified. However, the proposed project is located seaward of the mean high tide line and thus is within the Coastal Commission's original permit jurisdiction area. Therefore, pursuant to Section 30519 of the Coastal Act, the LCP does not apply to the proposed project. However, the certified LCP may be used for guidance in evaluating the proposed project for consistency with the Chapter 3 policies of the Coastal Act.

The City's LCP contains policies regarding the protection of water quality and marine resources, including incorporation of Sections 30230, 30231, 30233 and 30235 of the Coastal Act. In addition, the City's LCP has policies protecting environmentally sensitive habitat areas. The Commission has found that the project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act. Since the same policies are incorporated in the City's LCP, the project as conditioned is consistent with the LCP.

H. <u>California Environmental Quality Act</u>

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications 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 which the activity may have on the environment.

The project is located in an existing harbor in an urbanized area. Development already exists on the subject site. The project site does contain sensitive marine resources which will be impacted by the proposed project. However, the applicant has minimized the impact and will provide mitigation. In addition, the proposed development has been conditioned to assure the proposed notices of the Coastal Act. The conditions also

Inve to mitigate significant adverse impacts under CEQA. The conditions are: 1) a requirement inat the applicant comply with plans submitted with the application; 2) a requirement that the applicant conform with specific construction responsibilities to avoid impacts upon water quality and marine resources; 3) a requirement that the applicant conform with the proposed eelgrass mitigation plan; 4) a requirement that the applicant prepare of a survey to confirm the absence of

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Caulerpa taxifolia in the project area; 5) a requirement that the applicant acknowledge that this coastal development permit is not a waiver of any public rights which may exist on the property; 6) a requirement that the applicant demonstrate that a coastal development permit has been approved for the eelgrass and off site soft bottom mitigation; 7) a requirement that the applicant implement the soft bottom mitigation; 8) a requirement that the applicant demonstrate their legal ability to undertake the development; 9) a requirement for the submittal of an anchor management plan; and 10) submission of evidence of approval from the RWQCB. There are no other feasible alternatives or mitigation measures available which will lessen any significant adverse impact the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, can be found consistent with the requirements of CEQA.

5-01-359 (Azoulay) stfrpt final

Appendix A Substantive File Documents Page 26 of 27

Applicants Engineering Analyses and Letters

- Letter from Tetra Tech, Inc. to California Coastal Commission titled Response to May 12, 1999 Letter Regarding Follow-Up Notice of Incomplete Applications dated May 24, 1999
- Letter from Tetra Tech, Inc. to California Department of Fish and Game dated July 29, 1999
- Letter from Tetra Tech, Inc. to California Coastal Commission titled Coastal Development
 Permit Applications for Humboldt Island Bulkhead Repairs dated August 18, 1999
- Letter from Tetra Tech, Inc. to California Coastal Commission titled Coastal Development Permit Applications for Humboldt Island Bulkhead Repairs dated August 25, 1999

Biological Surveys and Mitigation Plans

- *Eelgrass/Caulerpa Taxifolia Survey for 3432 Venture Drive, Isaac Azoulay* dated August 31, 2001 prepared by Tetra Tech, Inc. of Pasadena, CA
- Eelgrass Survey Report, Trinidad Island Huntington Harbour conducted October 26, 1999, and November 18 & 19, 1999 and dated August 2000 prepared by Tetra Tech, Inc. of Pasadena, CA
- Eelgrass Mitigation and Eelgrass Transplant Report, Humboldt Island & Trinidad Island Bulkhead Repair Project, Huntington Beach, California dated August 2000 prepared by Tetra Tech, Inc. of Pasadena, CA
- Soft Bottom Mitigation Plan, Humboldt Island and Trinidad Island Bulkhead Repair Project, Huntington Beach, California dated April 2000 prepared by Tetra Tech, Inc. of Pasadena, CA
- Eelgrass (Zostera marina) survey, impact assessment, and mitigation plan dated December 1999 prepared for the County of Orange by Coastal Resources Management.

Local Government Approvals

- Negative Declaration No. 00-05 for the Humboldt Island and Trinidad Island Seawall (Bulkhead) Repairs prepared by the City of Huntington Beach and Tetra Tech, Inc. of Pasadena; CA
- Addendum to Mitigation Negative Declaration No. 00-05 approved by the City of Huntington Beach Zoning Administrator on September 12, 2001;

California Department of Fish and Game Letters and Approvals

- Memorandum from California Department of Fish and Game to the California Coastal Commission titled Humboldt Island Homeowners Association Bulkhead Repair dated July 6, 1999
- Letter from California Department of Fish and Game to City of Huntington Beach dated August 31, 2000 approving the Soft Bottom Mitigation Plan and Eelgrass Mitigation and Eelgrass Transplant Report cited above

Other Agency Approvals and Correspondence

Prote Loudeure Loase No. W25628 from California State Lands Commission dated September 1, 2001.

 Letter from the California Regional Water Quality Control Board, Santa Ana, dated December 6, 2001 acknowledging submittal of application requesting 401 water quality standards certification.

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- Letter from the California State Lands Commission dated March 24, 2000 regarding Proposed Bulkhead Repairs on 62 Residential Properties at Trinidad Island, Huntington Harbour, Orange County
- California Regional Water Quality Control Board, Santa Ana Region, Clean Water Act Section 401 Water Quality Certification for the Proposed Trinidad Island Bulkhead Repair on Properties Containing Eelgrass and Soft Bottom Habitat, City of Huntington Beach (ACOE Reference #200100038-YJC) dated December 8, 2000

Coastal Development Permits

- Eelgrass Impacts: 5-97-230 and 5-97-230-A1 (City of Newport Beach), 5-97-231 (County of Orange), 5-97-071 (County of Orange), and 5-99-244 (County of Orange-Goldrich-Kest-Grau)
- Emergency Coastal Development Permit 5-00-403-G
- Humboldt Island Bulkhead Reinforcements: 5-97-223 (Shea/Albert);5-98-179 (Kompaniez), 5-98-201 (Anderson), 5-98-443 (Whyte), 5-98-444 (Barrad), 5-99-005 (Dea), 5-99-006 (Fernbach & Holland), 5-99-007 (Aranda et al.), 5-99-008 (Yacoel et. al.), 5-99-030 (Johnson), 5-99-031 (Lady, Jr./Zlatko/Woods), 5-99-032 (Yacoel et al), 5-99-108 (Pineda), 5-98-471 (Maginot), 5-99-472 (Bjork), 5-99-473 (Gelbard)
- Trinidad Island Bulkhead Reinforcements: 5-00-389 (Ashby et. al.); 5-00-390 (Burggraf et. al.); 5-00-401 (Baghdassarian et. al.); 5-00-402 (Buettner et. al.)

Pending Coastal Development Permit Applications

• 5-01-358 (Rayhanabad)











1.<u>GENERAL CONDITIONS & EXISTING CONSTRUCTION</u>: Contractor shall verify the existing conditions shown on the drawings prior to installation of the work and shall notify the owner immediately of any discrepancies between the existing conditions and the conditions shown on the drawings.

Dimensions of the existing construction shown on the drawings are for information and estimating purposes only. Contractor is responsible for field verification of all dimensions relating to the existing construction prior to the installation of the work. Existing construction shall not be drilled, cut, or altered in any way except as specifically shown on the drawings. Contractor shall protect the existing construction from damage during the installation of the work shown. Contractor shall be responsible for the repair of any damage to the existing construction which may occur during the installation of the work shown, and shall restore any damaged area, at his expense, to its original condition.

It shall be the Contractor's responsibility to obtain and pay for all necessary permits and approvals prior to commencement of the work. The Contractor shall comply with all applicable requirements of the State Safety Orders and OSHA, and all work shall conform to the applicable requirements of the current edition of the Uniform Building Code (UBC).

Contractor shall supply, transport to the site, and install all items required for completion of the work shown in accordance with the drawings and the manufacturer's written recommendations.

2.<u>MONITORING & CONTINGENCY PLAN</u>: Prior to start of construction the Contractor shall establish monuments at locations selected by the Engineer and Contractor for the purpose of monitoring wall movements during the construction period. These monuments shall be surveyed at least three times per day by the Contractor, and if any wall movement is detected, the Contractor shall immediately inform the Engineer.

It shall be the Contractor's responsibility to ensure workers' safety and to make every reasonable effort to prevent wall movements during construction of the repairs. Prior to commencing work, the Contractor shall submit a brief written plan at each property, which details the required repairs and specific precautions to be taken to allow safe completion of the work. For cases where more than one adjacent pile requires repair by jack installation, or in the case where the wall exhibits fracture across its section and where displacement is evident, the Contractor shall provide temporary shoring bracing, etc. as he deems necessary, to allow safe access to the repair area.

As a contingency plan, the Contractor shall have two helical anchors, Chance model #C110-0235-SS175, on site with sufficient rod extensions to install a 30-foot long earth anchor which can be installed in the event significant wall movement is noted during the daily monitoring. All equipment needed for chance anchor installation shall also be on site with accompanying certifications that equipment gauges have been properly calibrated.

3.<u>MISCELLANEOUS MATERIALS</u>: Expansion anchors shall be Kwik Bolt II by Hilti Corporation or approved equal. Provide anchors made of Type 316 stainless steel with rod couplings.

Threaded rod shall be Type 316 stainless steel threaded rod. Provide rod with thread spacing and of diameter to match rod coupling provided with expansion anchors **CDASTAL CONTRACTS** at one end.

TETRA TECH

670 North Rosemead Bivd. Pasadena, CA 91107 (626)351–4664, Fax (626)351–5291

EXHIBIT #

PURPOSE: Repair Existing Seawall	SPECIFIC ATIONS	Proposed Repair of Existing Seawall IN: Huntington Harbour
Datum MLLW = 0 Adj. Property Owners: 1. See Attached List 2. 3.	Isaac Azoulay 3432 Venture Drive Huntington Beach, CA 92649	AT: Trinidad Island, Huntington Beach County of Orange State: CA Application By: Azoulay Sheet 3 of 7 Date: 8/27/

Provide continuous wales of size indicated on the drawings and fabricated from number 1 grade Douglas fir. Wales shall be cut and drilled and then coated with polyurethane base coat Elasto-Deck 5001 and top coated with Elasto-Glaze 6001 AL, by Pacific Polymers. Apply and touch up damaged areas of wood coatings in accordance with the manufacturer's written instructions.

Jacks shall be McMaster-Carr bell base screw jack model no. 2926T18 or approved equal. Jack capacity shall be 20 tons or greater.

4.<u>HIGH PRESSURE GROUT</u>: Provide MasterBuilder 212 grout, mixed and placed in accordance with manufacturer's written instructions. After concrete has hardened, place grout at recommended pressure through 1-1/2" diameter schedule 40 PVC grout tubes to fill remaining voids. Grout tubes shall be placed as shown on the drawings where the foundation base slab has been undermined and pile repair is required. Placement of grout shall continue at one location until grout exits grout tubes at adjacent pile repair locations. If adjacent pile locations do not require pile repair, two grout tubes shall be installed and grout shall be placed through one tube until it begins exiting the second tube. Elevation of feed ends of grout tubes shall be maintained above maximum high water level and grout shall be placed to the top of the tube, until grout has hardened.

5.<u>PORTLAND CEMENT CONCRETE:</u> Provide normal weight concrete to fill voids beneath the foundation base slab with the following properties:

Minimum ultimate compressive strength of 3,000 psi at 28 days. Portland Cement: ASTM C150, Type V Aggregate : ASTM C33 (Coarse Aggregate shall conform to requirements of Size #8, Table 2) Water: Potable Slump: 7 inches

Materials shall be mixed, transported, fabricated, placed, consolidated, and finished in accordance with the requirements of the current edition of the American Concrete Institute Building Code Requirements for Reinforced Concrete (ACI 318) and (ACI 304R). Specifically, concrete placement shall conform to the requirements of Chapter 8 "Concrete Placed Under Water", utilizing either the direct pumping or tremie methods. Contractor shall take care to maintain the end of the pipe or tremie in the concrete mass at all times during concrete placement.

- 6.<u>STEEL PLATES & PIPE</u>: Structural steel plates shall conform to the requirements of ASTM A36. Steel pipe shall conform to the requirements of ASTM A53 Type B. All welding shall be performed by welders certified to perform the indicated types of welding and shall be in accordance with the current edition of the American Welding Society (AWS) Structural Welding Code for steel. L.A. welding certificates shall be provided.
- 7.<u>SHEET PILING:</u> Shall be Shore Guard Rigid Vinyl Sheet piling by Materials International, Atlanta, Georgia 800-256-8857, or equal. Provide size shown on drawings and install in accordance with manufacturer's written instructions.

		COASTAL COMMISSION
TETRATECH 670 North Rosemead Blvd. Pasadena, CA 91107 (626)351-4664, Fax (626)351-5291		EXHIBIT # PAGE H_ OF 7 _
PURPOSE: Repair Existing Seawall	SPECIFIC ATIONS	Proposed Repair of Existing Seawall : Huntington Harbour
Datum: MLLW = 0 Adj. Property Owners: 1. See Attached List 2. 3.	Isaac Azoulay 3432 Venture Drive Huntington Beach, CA 92649	AT: Trialdad Island, Huntington Beach County of Orange State: CA Application By: Azoulay Sheet 4 of 7 Date: 8/27/01

- 8.<u>SLOPE PROTECTION:</u> Slope protection shall be 8 inch minus quarry waste placed as shown. Contractor shall submit certified gradation curves from material supplier. Slope protection shall be installed in accordance with CALTRANS placement method B (Section 72) from a distance not exceeding 2 ft.
- 9.<u>GEOTEXTILE:</u> Shall be MIRAFI 700X woven polypropylene fabric with 135lb. or better puncture rating approved equivalent

10.<u>CONSTRUCTION SEQUENCE</u>: Construction shall be completed and inspected in accordance with the following:

1. Prior to start of construction, a diver certified in the State of California will inspect the existing foundation and piles and determine repair requirements. Screw jacks shall be installed if batter pile deterioration exceeds 25% of its original net diameter, or as directed by Engineer.

2. When pile repair is required, no more than one pile shall be cut and the jack assembly installed prior to beginning work on the next pile. Upon completion of jack assembly installation, grout tubes shall be hung from the bottom of the base slab. After placement of jack assembly, jack shall be adjusted to its maximum capacity, but not greater than 20 tons. Jack adjustment shall be completed during high tide. Prior to concrete placement, pile repair work and jack assembly installation shall be inspected and approved.

3. Upon completion of all pile repair and jack assembly installation work at a given property, vinyl sheet piling and wales shall be installed. Prior to installation of first sheet pile, notify John Von Holle of the Huntington Beach Public Works Department @ (714) 536-5431.

4. After installation of sheet piling and wales is completed at a given property, placement of concrete fill shall be completed in accordance with the drawings and these notes.

5. After concrete has cured for a minimum of 48 hours, all remaining voids shall be filled with grout in accordance with these notes and the grout manufacturer's written instructions. After completion of concrete and grout placement, work shall be inspected and certified by the Contractor.

6. Contractor shall place the appropriate width of geotextile for the slope protection with an additional 2ft. min. overhang at each side. Overhang to be folded back over 1st layer of rock and covered by subsequent layers or rock until specified slope is achieved. All sheet splices shall have a min. 18 inches of overlap and shall be secured together by staples or other approved means.

7. Contractor shall locate all existing weep holes in bulkhead walls, remove marine growth and clean out weep holes from the water side to the earth side of the wall.

In order to avoid construction delays, Contractor shall coordinate activities and schedule diver inspections. Certified divers shall be approved by Tetra Tech. Contact Fernando Pages, (Tetra Tech, Inc.) @ (626) 351-4664.

COASTAL COMMISSION

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TETRA TECH 670 North Rosemead Blvd. Pasadena, CA 91107 (626)351-4664, Fax (626)351-5291

EXHIBIT # PAGE.

PURPOSE: Repair Existing	Seawall	SPEC IFIC ATIONS	Proposed Repair of Existing Seawall
Adj. Propurty Owners: 1. See Attached List 2. 3.	2	Isaac Azoulay 3432 Venture Drive Huntington Beach, CA 92649	IN: Entington Harbour AT: Trinidad Island, Huntington Beach County of Orange State: CA Application By: Azoulay Sheet 5 of 7 Date: 8/27/0







FIGURE 3. Trinidad Island Eelgrass Transplant Donor Site, Huntington Beach California, June 2000.



DEPARTMENT OF FISH AND GAME MARINE REGION. 411 BURGESS DRIVE MENLO PARK, CA 94025

(650) 688-6340

August 31, 2000



RECEIVED

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SEP 0 5 2000

Department of Planning

Ms. Mary Beth Broeren Senior Planner City of Huntington Beach 2000 Main Street Huntington Beach, California 92648

Dear Ms. Broeren:

Department of Fish and Game (Department) personnel have reviewed the Draft Negative Declaration/ Environmental Assessment No. 00-05 for the Humboldt Island and Trinidad Island Seawall Repairs (No. 00-05). The proposed project will repair and renovate existing bulkheads at 40 properties on Humboldt Island and 64 properties on Trinidad Island, Huntington Harbor, Huntington Beach, Orange County, California. It is anticipated that 24 properties will require removal and/or repair of damaged piles. At 44 properties, vinyl sheet-pile will be installed 1-foot, 7-inches seaward of the bulkheads. At all properties, a protective rip-rap footing comprised of quarry waste material, ranging from sand to 8-inch fragments, will be placed at the bulkheads. The footing will extend a maximum of 11 feet from the bulkheads. Sheet-pile installation will eliminate soft bottom habitat while slope protection will impact eelgrass (*Zostera marina*) habitat.

Tetra Tech, Inc., the property owners' authorized agents, have prepared two separate mitigation plans to compensate for loss of soft bottom habitat and impacts to eelgrass. The "Soft Bottom Mitigation Plan," describes procedures to restore and create tidal influence to existing wetland areas located in the Bolsa Chica Ecological Reserve, managed by the Department, in an area bordered by Pacific Coast Highway and Warner Avenue, approximately 0.5- to 1.2-miles southwest of the bulkhead projects. The "Eelgrass Mitigation and Eelgrass Transplant Report," describes procedures for eelgrass transplant at a site delineated for eelgrass mitigation by Orange County, approximately 1 mile northwest of the impact area. Tetra Tech, Inc., transplanted 3,600 square feet of eelgrass in June 2000.

The Department has reviewed the mitigation plans and finds them adequate compensation for project induced losses. Thus, we conclude that the project, as currently proposed, would not have a significant adverse impact upon the existing marine environment provided the described mitigation plans are carried out in full COASTAL COMMISSION

EXHIBIT # PAGE _____OF_

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn Fluharty, Environmental Specialist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

Sincerely,

Robert N. Tasto, Supervisor Project Review and Water Quality Program Marine Region

cc: Ms. Marilyn Fluharty Department of Fish and Game San Diego, CA

EXHIBIT # PAGE _

To :

Memorandum

Mr. Karl Schwing California Coastal Commission 200 Oceangate Avenue Suite 1000 Long Beach, California 90802

DECENTER Date : July 6, 1999

JUL 1 4 1999

CHITORNIA COAUTAL COMMISSION

Department of Fish and Game From :

Subject: Humboldt Island Homeowners Association Bulkhead Repair

This memo is in response to a request from Ms. Sarah McFadden, Tetra Tech Inc., representing the Humboldt Island Homeowners Association, concerning proposed project plans to repair and renovate existing bulkheads for 36 residences on southern Humboldt Island, Huntington Harbor, Huntington Beach, Orange County, California. Damaged piles will be removed and/or repaired at three properties. At 19 properties, vinyl sheet-pile will be installed 1 foot 7 inches seaward of the bulkheads. At all 36 properties a protective rip-rap footing, comprised of quarry waste material ranging from sand to 8 inch fragments, will be placed at the bulkheads. The footing will extend a maximum of 11 feet from the bulkheads.

The proposed project will impact hardscape, the water column, and soft bottom habitat. Impacts to hardscape (i.e., existing bulkheads and structures) and the water column are considered temporary, as the water quality will return to pre-construction conditions and the new structures will eventually be colonized by attachment organisms. However, impacts to soft bottom habitat will not be temporary. Based on information provided to the Department by Tetra Tech Inc., "expansion" of 19 bulkheads will result in a permanent loss of approximately 1,581 square feet of marine soft bottom bay habitat. In addition, approximately 17,700 square feet of soft bottom habitat will be buried by placement of rip-rap. Approximately 780 square feet of this soft bottom substrate is eelgrass (Zostera marina) habitat.

The permanent loss of marine soft bottom bay habitat is of concern to the Department. The Department strongly recommends that bulkhead projects be designed to eliminate or minimize loss of marine bay habitat. To accomplish this goal, we recommend that each property owner strive to construct its bulkhead either in place of the existing bulkhead or immediately in front of the existing bulkhead so that installation results in no net loss of intertidal habitat when measured at the Mean Higher High Water line. The Humboldt Island Homeowners' project has proposed sheet piling to be placed 1 foot 7 inches seaward of those bulkheads in need of repair. The sheet piling retains concrete and grout which is pumped in to fill existing voids in the bulkhead. Presumably the 1 foot 7 inch distance is necessary to allow sufficient clearance for concrete and grout piping, and to enable a pneumatic hammer to clear the bulkhead footing. It is the Department's position that bulkhead projects be constructed in such a manner to be the least environmentally damaging practicable alternative. Thus, we recommend the project proponent investigate alternative methodologies for filling voids in bulkheads. If this is deemed structurally unfeasible, then any incurred loss of marine soft bottom bay habitat should be mitigated.

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Mr. Karl Schwing July 6, 1999 Page Two

The Department recognizes that placement of rip-rap at the bulkheads would result in an initial loss of ecological benefits to species associated with soft bottom habitat. However, in the case of unvegetated soft bottom habitat this loss would likely be short-term, as different organisms would recolonize the rip-rap. Thus, we believe that placement of rip-rap on unvegetated soft bottom habitat would not have a significant impact on the environment.

In contrast, impacts to vegetated soft bottom habitat, i.e., eelgrass, from placement of rip-rap are significant. It is well documented that eelgrass habitat provides forage, cover, reproductive opportunities, and other benefits to various fish species, and may be used by these species as permanent residence or nursery habitat. Impacts to eelgrass habitat have significant impacts on the environment, and eelgrass loss must be mitigated.

The project proponents plan to offset the loss of eelgrass in a manner consistent with the <u>Southern California Eelgrass Policy, as amended</u>. However, a specific eelgrass mitigation plan identifying the mitigation site has not been detailed at this time. In addition, the project proponent has not proposed a mitigation plan, nor recognized the necessity to compensate for the loss of 1,581 square feet of marine soft bottom bay habitat. The location and plans for mitigation sites are the responsibility of the project proponent. Therefore, until appropriate mitigation plans both for eelgrass loss and loss of soft bottom habitat have been developed and provided to the Department for review and approval, we cannot support this project.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn Fluharty, Environmental Specialist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, California 92123, or by telephone at (619) 467-4231.

Sincerely,

DeWayne finanti

DeWayne Johnston Regional Manager Marine Region

Ms. Marilyn Fluharty Department of Fish and Game San Diego, California

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cc:

CGASTAL COMMIS

EXHIBIT #____5



Santa Ana Region

Internet Address: http://www.swrcb.ca.gov 3737 Main Street, Suite 500, Riverside, California 92501-3339 Phone (909) 782-4130 3 FAX (909) 781-6288



Grav Davis

Governor

South Coast Region

DEC 1 0 2001

CALIFORNIA COASTAL COMMISSION

December 6, 2001

Robert Yates Environmental Specialist Tetra Tech 670 North Rosemead Boulevard Pasadena, CA 91107

REQUEST FOR 401 WATER QUALITY STANDARDS CERTIFICATION FOR THE SIX PROPOSED BULKHEAD REPAIRS AT HUNTINGTON HARBOUR, CITY OF HUNTINGTON BEACH, ORANGE COUNTY

Dear Mr. Yates:

On December 6, 2001, we received a request for 401 Water Quality Standards Certification dated December 5, 2001 for the above-referenced project. The project involves the following bulkhead repairs:

Applicant	Project Location
Rod Rieth	Humboldt Island
Vincent San Fillippo	Humboldt Island
Dusan Jenkov	Humboldt Island
Alex Miranc	Humboldt Island
John Westmoreland	Humboldt Island
Isaac Azoulay	Trinidad Island

We are currently reviewing the contents of your application. Should we need further information, we will contact you. In the meantime, should you have any questions, please feel free to contact me at (909) 782-3221.

Sincerely,

and M. Gasca

Stephanie M. Gasca Coastal Waters Planning Section

Cc: Alexis Strauss – U.S. EPA, Director of Water Division (WTR-1)

Oscar Balaguer, Chief - State Water Resources Control Board, Division of Water Quality, Water Quality Certification Unit

Jae Chung –U.S. Army Corps of Engineers, Los Angeles District

VKarl Schwing - California Coastal Commission, Long Beach Branch

COASTAL COMMISSION 5-01-359 EXHIBIT # PAGE___OF__

California Environmental Protection Agency

CALIFORNIA STATE LANDS COMMISSION 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202



PAUL D. THAYER, Executive Officer (916) 574-1800 FAX (916) 574-1810 California Relay Service From TDD Phone 1-800-735-2922 from Voice Phone 1-800-735-2

> Contact Phone: (916) 574-1892 Contact FAX: (916) 574-1925

March 24, 2000 Coust Region APR 3 2000 COASTAL CORNIA COASTAL CORNIA COANIA

File Ref: W 25628 W 25444

Fernando Pages Tetra Tech Inc. 670 North Rosemead Blvd. Pasadena, CA 91107

Dear Mr. Pages:

SUBJECT: Proposed Bulkhead Repairs on 62 Residential Properties at Trinidad Island, Huntington Harbour, Orange County

This is in response to your request on behalf of your clients, 62 residential property owners at Trinidad Island in Huntington Harbour, for a determination by the California State Lands Commission (CSLC) whether it asserts a sovereign title interest in the properties that the subject projects will occupy and whether it asserts that the projects will intrude into an area that is subject to the public easement in navigable waters.

The facts pertaining to your clients' projects, as we understand them, are these:

Your clients are proposing to repair existing bulkheads located adjacent to various residential properties throughout Trinidad Island in Huntington Harbour. The repairs will involve further waterward reinforcement of the bulkheads. Pursuant to two agreements entered into in 1961 and 1962, BLA 18 and SLL 34, the CSLC settled certain property (boundary and title) ownership issues with the Huntington Harbour Corporation involving Huntington Harbour. The CSLC's area of leasing jurisdiction extends over the state's fee title ownership including the areas that are referred to as the Main and Midway Channels. The state retains a Public Trust easement over additional within Huntington Harbour. Specifically with regard to Trinidad Island, the 20 lots located within Tracts 8636 and 9335 (Venture Drive) are located adjacent to the north fork of the Main Channel. The bulkheads are assumed to be located on privately-ov and lots adjacent to the boundary between the private upland and the state's fee ownership.

EXHIBIT #		7a		
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Based on our review of the information you provided, the proposed repair projects within Tracts 8636 and 9335 are located in the Main Channel and will include sovereign lands lying waterward of the existing bulkheads, and therefore require CSLC authorization. An application(s) will need to be submitted for the 20 lots along Venture Drive. One application may be submitted for all 20 lots, along with a filing fee of \$25 per lot and a processing deposit of \$3000, for a total of \$3500. The homeowners may wish to consider having one individual represent them during the application process. However, all of the homeowners will need to be signatories to the lease documents.

For your information, back in 1997, I reviewed plans from Moffatt & Nichol Engineers relative to bulkhead repairs at 3302 and 3312 Venture Drive. In mid-1998, I was subsequently advised by M & N that the property owners (Shea and Albert) would be included as part of an application to be submitted on behalf of many other property owners for bulkhead repairs throughout this area of Huntington Harbour. Please advise if your firm will be handling the projects for these two properties as part of the larger Trinidad Island projects you are proposing.

I have enclosed information relative to the CSLC's application process. Please have the application completed and returned to me, along with the necessary fees, as soon as possible. In addition, the projects are subject to environmental review by the CLSC's staff. Standard for this review are set forth in the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the Public Resources Code.

It is our understanding that a significant number of property owners in Huntington Harbour in addition to your clients are proposing bulkhead repairs and that before these projects are considered by the California Coastal Commission, the State Department of Fish and Game is requesting that a Mitigation Plan be prepared to mitigate impacts to soft-bottom habitat. As to all of the bulkhead repair projects being proposed by your clients, whether subject to the CSLC's leasing jurisdiction and/or the Public Trust Easement, we will be reviewing that Mitigation Plan as part of our consideration of your clients' projects.

Upon receipt of the application and fees, your clients or their designated representative will be provided a reimbursement agreement. An executed reimbursement agreement to cover the CSLC's cost to process these transactions is required as part of a complete application. If the actual staff costs of processing this transaction are less than the deposited amount, the difference will be refunded.

On a somewhat related matter, our files indicate that seven of the lots on Venture Drive (Tract 8636, Lots 1 and 2; Tract 9168, Lots 68, 69, 70; and Tract 9335, Lots 40 and 46) have existing recreational pier leases for boat docks. Our files also indicate that thirteen of the lots proposed for bulkhead repairs (Tract 8636, Lots 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16) do not currently have recreational pier leases for boat

EXHIBIT #____ PAGE 2 OF

docks. To the extent that any or all of these thirteen lots have existing boat docks, recreational pier lease(s) are required. Please confirm the status of these thirteen lots with regard to this issue.

Sincerely,

sure & mith

Jane E. Smith Public Land Management Specialist Southern California Region

Enclosure

cc: Marilyn Fluharty, DFG Karl Schwing, CCC/Long Beach

EXHIBIT # PAGE 3

STATE OF CALIFORNIA

GRAY DAVIS, Governor

CALIFORNIA STATE LANDS COMMISSION
 100 Howe Avenue, Suite 100-South
 Sacramento, CA 95825-8202



PAUL D. THAYER, Executive Officer (916) 574-1800 FAX (916) 574-1810 California Relay Service From TDD Phone **1-800-735-2922** from Voice Phone **1-800-735-2929**

> Contact Phone: (916) 574-1900 Contact FAX: (916) 574-1925

December 6, 2001

File Ref: PRC 8346

RECEIVED South Coast Region

Karl Schwing California Coast Commission 200 Oceangate, 10th Floor, Suite 1000 Long Beach, CA 90802-4302

DEC 1 0 2001

CALIFORNIA COASTAL COMMISSION

Dear Mr. Schwing:

SUBJECT: General Lease – Protective Structure Use for Bulkhead Repair Adjacent to 3432 Venture Drive, Huntington Beach, Orange County

Enclosed please find a copy of the lease between the California State Lands Commission and Mr. and Mrs. Isaac Azoulay for a strip of State owned land adjacent to their property on Trinidad Island, Huntington Harbour. I believe this is the only romaining lease copy that you were waiting for in order to proceed with the coastal permit process for the bulkhead repairs to be performed on Trinidad Island.

If you have any questions, please contact me at (916) 574-1812.

Happy Holidays Aling (

Mary C. Hays Public Land Management Specialist

cc: Tetra Tech



RECORDED AT THE REQUEST OF AND WHEN RECORDED MAIL TO: STATE OF CALIFORNIA California State Lands Commission Attn: Title Unit 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202

STATE OF CALIFORNIA OFFICIAL BUSINESS

Document entitled to free recordation pursuant to Government Code Section 27383

A.P.N. 178-713-15 County: Orange SPACE ABOVE THIS LINE FOR RECORDER'S USE

W 25628

LEASE PRC 8346

This Lease consists of this summary and the following attached and incorporated parts:

Section 1	Basic Provisions
Section 2	Special Provisions Amending or Supplementing Section 1 or 4
Section 3	Description of Lease Premises
Section 4	General Provisions

SECTION 1

BASIC PROVISIONS

THE STATE OF CALIFORNIA, hereinafter referred to as Lessor acting by and through the CALIFORNIA STATE LANDS COMMISSION (100 Howe Avenue, Suite 100-South, Sacramento, California 95825-8202), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise and let to:

Isaac Azoulay and Linda Zonana Azoulay

hereinafter referred to as Lessee:

WHOSE MAILING ADDRESS IS:

3432 Venture Drive Huntington Beach, California 9264 COASTAL COMMISSION



those certain lands described in Section 3 subject to the reservations, terms, covenants and conditions of this Lease.

LEASE TYPE: General Lease - Protective Structure Use

LAND TYPE: State owned submerged lands

LOCATION: Huntington Harbour, Huntington Beach, Orange County

LAND USE OR PURPOSE: Repair of an existing bulkhead adjacent to Lot 6, Tract 8636, that may include all or some of the following: (1) existing pile repair; (2) placement of sheet pile; (3) installation of rock slope protection.

TERM: Ten years; beginning September 1, 2001; ending August 31, 2011, unless sooner terminated as provided under this Lease.

CONSIDERATION: The public health and safety, with the State reserving the right at any time to set a monetary rent if the Commission finds it to be in the State's best interest.

Subject to modification by Lessor as specified in Paragraph 2(b) of Section 4 - General Provisions.

AUTHORIZED IMPROVEMENTS: Repair of Existing Support Piles; Installation of Sheet Pile and Rock Slope Protection

X EXISTING: Support Piles

X TO BE CONSTRUCTED; CONSTRUCTION MUST BEGIN BY: N/A

AND BE COMPLETED BY: April 1, 2002

LIABILITY INSURANCE: \$1,000,000 Combined Single Limit Coverage

SURETY BOND OR OTHER SECURITY: N/A

SECTION 2 SPECIAL PROVISIONS

BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE AMENDED, REVISED OR SUPPLEMENTED AS FOLLOWS:

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EXHIBIT #___ PAGE 3

SECTION 3

Those state owned submerged lands lying within a strip of land ten feet in width waterward of and immediately adjacent to Lot 6 of Tract 8636, as shown on a Map recorded in Book 397, pages 33-35 of Miscellaneous Map, records of Orange County.

EXHIBIT #_ PAGE___ OF

STATE OF CALIFORNIA - STATE LANDS COMMISSION

LEASE P.R.C. NO. <u>W 25628</u> / 8 3 46

This Lease shall become effective only when approved by and executed on behalf of the State Lands Commission of the State of California and a duly executed copy has been delivered to Lessee. The submission of this Lease by Lessor, its agent or representative for examination by Lessee does not constitute an option or offer to lease the Lease Premises upon the terms and conditions contained herein, or a reservation of the Lease Premises in favor of Lessee. Lessee's submission of an executed copy of this Lease to Lessor shall constitute an offer to Lessor to lease the Lease Premises on the terms and conditions set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date hereafter affixed.

LESSEE

ISSAC AZOULAY AND LINDA ZONANA AZOULAY

By:	Janac agoulay	
1n-	ISAAC AZOULAY	
By:	- Juni	
	LINDA ZONANA AZOULAY	

OCT. 05-2001

ACKNOWLEDGEMENT See attached Acknowledgment STATE OF CALIFORNIA STATE LANDS COMMISSION

By: Title:

This Lease was authorized by the California State Lands Commission on

 $\frac{9-17-01}{(Mc-1.y Year)}$

Date:

COASTAL COMMISSION

EXHIBIT # PAGE_5 OF

SOUTHERN CALIFORNIA EELGRASS MITIGATION POLICY

(Adopted July 31, 1991)

Eelgrass (Zostera marina) vegetated areas function as important habitat for a variety of fish and other wildlife. In order to standardize and maintain a consistent policy regarding mitigating adverse impacts to eelgrass resources, the following policy has been developed by the Federal and State resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game). This policy should be cited as the Southern California Eelgrass Mitigation Policy (revision 8).

For clarity, the following definitions apply. "Project" refers to work performed on-site to accomplish the applicant's purpose. "Mitigation" refers to work performed to compensate for any adverse impacts caused by the "project". "Resource agencies" refers to National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

1. Mitigation Need. Eelgrass transplants shall be considered only after the normal provisions and policies regarding avoidance and minimization, as addressed in the Section 404 Mitigation Memorandum of Agreement between the Corps of Engineers and Environmental Protection Agency, have been pursued to the fullest extent possible prior to the development of any mitigation program.

2. Mitigation Map. The project applicant shall map thoroughly the area, distribution, density and relationship to depth contours of any eelgrass beds likely to be impacted by project construction. This includes areas immediately adjacent to the project site which have the potential to be indirectly or inadvertently impacted as well as areas having the proper depth and substrate requirements for eelgrass but which currently lack vegetation.

Protocol for mapping shall consist of the following format:

1) Coordinates

Horizontal datum - Universal Transverse Mercator (UTM), NAD 83, Zone 11

Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

COASTAL COMMISSION

2) Units

Transects and grids in meters.

Area measurements in square meters/hectares.

All mapping efforts must be completed during the active growth phase for the vegetation (typically March through October) and shall be valid for a period of 120 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.,

EXHIBIT # <u>5</u> PAGE <u>1</u> OF <u>5</u>

March 1). After project construction, a post-project survey shall be completed within 30 days. The actual area of impact shall be determined from this survey.

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3. Mitigation Site. The location of eelgrass transplant mitigation shall be in areas similar to those where the initial impact occurs. Factors such as, distance from project, depth, sediment type, distance from ocean connection, water quality, and currents are among those that should be considered in evaluating potential sites.

4. Mitigation Size. In the case of transplant mitigation activities that occur concurrent to the project that results in damage to the existing eelgrass resource, a ratio of 1.2 to 1 shall apply. That is, for each square meter adversely impacted, 1.2 square meters of new suitable habitat, vegetated with eelgrass, must be created. The rationale for this ratio is based on, 1) the time (i.e., generally three years) necessary for a mitigation site to reach full fishery utilization and 2) the need to offset any productivity losses during this recovery period within five years. An exception to the 1.2 to 1 requirement shall be allowed when the impact is temporary and the total area of impact is less than 100 square meters. Mitigation on a one-for-one basis shall be acceptable for projects that meet these requirements (see section 11 for projects impacting less than 10 square meters).

Transplant mitigation completed three years in advance of the impact (i.e., mitigation banks) will not incur the additional 20% requirement and, therefore, can be constructed on a one-for-one basis. However, all other annual monitoring requirements (see sections 8-9) remain the same irrespective of when the transplant is completed.

Project applicants should consider increasing the size of the required mitigation area by 20-30% to provide greater assurance that the success criteria, as specified in Section 9, will be met. In addition, alternative contingent mitigation must be specified, and included in any required permits, to address situation where performance standards (see section 9) are not met.

5. Mitigation Technique. Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Donor material shall be taken from the area of direct impact whenever possible, but also should include a minimum of two additional distinct sites to better ensure genetic diversity of the donor plants. No more than 10% of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Written permission to harvest donor plants must be obtained from the California Department of Fish and Game.

Plantings should consist of bare-root bundles consisting of 8-12 individual turions. Specific spacing of transplant units shall be at the discretion of the project applicant. However, it is understood that whatever techniques are employed, they must comply with the stated requirements and criteria.

6. Mitigation Timing. For off-site mitigation, transplanting should be started prior to or concurrent with the initiation of in-water construction resulting in the impact to the eelgrass bed. Any off-site mitigation project which fails to initiate transplanting work within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass bed will be subject to additional mitigation requirements as specified in section 7. For on-site magation, truspactial solutions

EXHIBIT # <u>8</u> PAGE <u>2</u> OF <u>5</u>

postponed when construction work is likely to impact the mitigation. However, transplanting of onsite mitigation should be started no later than 135 days after initiation of in-water construction activities. A construction schedule which includes specific starting and ending dates for all work including mitigation activities shall be provided to the resource agencies for approval at least 30 days prior to initiating in-water construction.

7. Mitigation Delay. If, according to the construction schedule or because of any delays, mitigation cannot be started within 135 days of initiating in-water construction, the eelgrass replacement mitigation obligation shall increase at a rate of seven percent for each month of delay. This increase is necessary to ensure that all productivity losses incurred during this period are sufficiently offset within five years.

8. Mitigation Monitoring. Monitoring the success of eelgrass mitigation shall be required for a period of five years for most projects. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site and shall be conducted at 3, 6, 12, 24, 36, 48, and 60 months after completion of the transplant. All monitoring work must be conducted during the active vegetative growth period and shall avoid the winter months of November through February. Sufficient flexibility in the scheduling of the 3 and 6 month surveys shall be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.

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The monitoring of an adjacent or other acceptable control area (subject to the approval of the resource agencies) to account for any natural changes or fluctuations in bed width or density must be included as an element of the overall program.

A monitoring schedule that indicates when each of the required monitoring events will be completed shall be provided to the resource agencies prior to or concurrent with the initiation of the mitigation.

Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period.

9. Mitigation Success. Criteria for determination of transplant success shall be based upon a comparison of vegetation coverage (area) and density (turions per square meter) between the project and mitigation sites. Extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density of shoots is defined by the number of turions per area present in representative samples within the control or transplant bed. Specific criteria are as follows:

a. a minimum of 70 percent area of eelgrass bed and 30 percent density after the first year.

b. a minimum of 85 percent area of eelgrass bed and 70 percent density after the second year.

c. a sustained 100 percent area of eelgrass bed and at least 85 percent density for the third, fourth and fifth years. COASTAL COMMISSION

EXHIBIT # ______ PAGE ______ OF ____

Should the required eelgrass transplant fail to meet the established criteria, then a Supplementary Transplant Area (STA) shall be constructed, if necessary, and planted. The size of this STA shall be determined by the following formula:

 $STA = MTA \times (|A_t + D_t| - |A_c + D_c|)$

MTA = mitigation transplant area.

 A_t = transplant deficiency or excess in area of coverage criterion (%).

 D_t = transplant deficiency in density criterion (%).

 A_{\sim} = natural decline in area of control (%).

 $D_c =$ natural decline in density of control (%).

Four conditions apply:

1) For years 2-5, an excess of only up to 30% in area of coverage over the stated criterion with a density of at least 60% as compared to the project area may be used to offset any deficiencies in the density criterion.

2) Only excesses in area criterion equal to or less than the deficiencies in density shall be entered into the STA formula.

3) Densities which exceed any of the stated criteria shall not be used to offset any deficiencies in area of coverage.

4) Any required STA must be initiated within 120 days following the monitoring event that identifies a deficiency in meeting the success criteria. Any delays beyond 120 days in the implementation of the STA shall be subject to the penalties as described in Section 7.

10. Mitigation Bank. Any mitigation transplant success that, after five years, exceeds the mitigation requirements, as defined in section 9, may be considered as credit in a "mitigation bank". Establishment of any "mitigation bank" and use of any credits accrued from such a bank must be with the approval of the resource agencies and be consistent with the provisions stated in this policy. Monitoring of any approved mitigation bank shall be conducted on an annual basis until all credits are exhausted.

11. Exclusions.

1) Placement of a single pipeline, cable, or other similar utility line across an existing eelgrass bed with an impact corridor of no more than ½ meter wide may be excluded from the provisions of this policy with concurrence of the resource agencies. After project construction, a post-project survey UASTAL COMMISSION



shall be completed within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from this survey. An additional survey shall be completed after 12 months to insure that the project or impacts attributable to the project have not exceeded the allowed ½ meter corridor width. Should the post-project or 12 month survey demonstrate a loss of eelgrass greater than the ½ meter wide corridor, then mitigation pursuant to sections 1-11 of this policy shall be required.

2) Projects impacting less than 10 square meters. For these projects, an exemption may be requested by a project applicant from the mitigation requirements as stated in this policy, provided suitable outof-kind mitigation is proposed. A case-by-case evaluation and determination regarding the applicability of the requested exemption shall be made by the resource agencies.

(last revised 2/2/99)

EXHIBIT # 8 PAGE 5 OF 5





