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STAFF REPORT: CONSENT CALENDAR

Application No.:	**5-17-0118**
Applicant:	**Vikram Mandla**
Agent:	**Gregory S. Reid, PE,**
Location:	16612 Channel Lane, Huntington Beach, Orange County (APN: 178-431-40)
Project Description:	Repair of a deteriorating bulkhead, removal of a 28-foot long cantilevered deck and construction of a 43.5-foot long deck cantilevered five feet beyond the bulkhead, and replacement of an L-shaped dock float and gangway in the same location using two existing piles on a harbor front lot.
Staff Recommendation:	Approval with conditions

SUMMARY OF STAFF RECOMMENDATION

Coastal Act issues associated with the proposed dock and deck construction and bulkhead repair include protection of water quality during and after construction, impacts to soft bottom habitat, and the repaired bulkhead's ability to withstand future sea level rise.

Staff is recommending **approval** of the coastal development permit application with twelve (12) special conditions. The special conditions require: 1) a Bulkhead Monitoring Plan; 2) Submittal of final As-built Plans; 3) Prohibition of Future Bayward Encroachment of the Bulkhead Footprint; 4) Alternatives to Plastic; 5) Soft Bottom Mitigation; 6) Pre-Construction Eelgrass Survey; 7) Pre-Construction *Caulerpa taxifolia* Survey; 8) Conformance with Approved Plans; 9) Construction Responsibilities and Debris Removal; 10) Best Management Practices ; 11) Public Rights**;** and 12) Assumption of Risk.

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EXHIBITS

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I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** the coastal development permit applications included on the consent calendar in accordance with the staff recommendations.*

Staff recommends a **YES** vote. Passage of this motion will result in approval of all of the permits included on the consent calendar. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

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

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Bulkhead Monitoring Plan.** The permittee shall maintain the bulkhead reinforcement in good condition throughout the life of the development**. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit to the Executive Director for review and approval a Bulkhead Monitoring Plan. The permittee and their successors in interest shall be responsible for carrying out all provisions of the approved Monitoring Plan for as long as the bulkhead reinforcement remains in place. The monitoring plan, at a minimum, shall provide for: (a) regular inspections by a qualified person familiar with bulkhead structures who is able to document via photos and provide written descriptions based on personal observation whether any cracks, breaks or deterioration have occurred. These inspections shall be performed at least every 2 years; (b) inspections shall examine the exposed portions of the bulkhead reinforcement (to the mud line) for signs of weakness or possible failure, including, but not limited to cracking, bending, splitting, splintering, or flaking. All weak or potential failure areas should be marked on an as-built plan of the bulkhead reinforcement, and there should be photographs and text to explain the nature and extent of each weakness.

   Inspection reports shall be prepared and conveyed to the Executive Director within 30 days of the inspection work. These reports shall provide information on and photographs from the date of the inspection, the name and qualifications of the person performing the inspection, and an overall assessment of the continued integrity of the bulkhead reinforcement. If the inspection identifies any areas where the bulkhead reinforcement has been damaged, the report shall identify alternatives to remedy the damage.

   In the event that any sections of the bulkhead reinforcement are damaged or flaking, the permittee shall notify the Commission within 10 days; and in such event, within 30 days of such notification, submit to the Commission a complete application for any coastal development permit amendment, or new permit, necessary for the repair or replacement of the bulkhead reinforcement, unless the Executive Director deems that none is legally required.

2. **As-Built Plans**
   Within thirty (30) days of the date of completion of construction of the bulkhead repair project as depicted on the proposed project plans (Exhibit 2 of this staff report), the applicant shall submit "as-built" plans, showing the permitted structure in relation to the existing topography and existing, surrounding development.

3. **No Future Bayward Encroachment**. By acceptance of this Permit, the applicant agrees, on behalf of itself (or himself or herself, as applicable) and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline structure (bulkhead) approved pursuant to Coastal Development Permit No. **5-17-0118**, as described and depicted on approved project plans (Exhibit 2 of this staff report), and as depicted on the as-built plans required in Special Condition No. 2 above, shall result in any encroachment bayward of the authorized footprint of the shoreline structure. By acceptance of this Permit, the applicant waives, on behalf of itself (or himself or herself, as applicable) and

all successors and assigns, any rights to such activity that may exist under Public Resources Code Section 30235.

4. Alternatives to Plastic. By acceptance of this permit, the applicant agrees to submit an application for an amendment to this permit or a new coastal development permit if new information becomes available that indicates that plastic has harmful effects on the marine environment, and that environmentally superior, feasible alternative(s) are available. The amendment or new coastal development shall include measures to eliminate or significantly reduce the adverse impacts of the plastic including, if necessary, the replacement of the bulkhead.

5. Soft Bottom Mitigation. By acceptance of this permit, the applicant shall assure that the soft bottom mitigation shall be carried out as proposed by the removal of 10.79 square feet of concrete overpour at the existing bulkhead toe at the subject site.

6. Eelgrass Survey(s).

A. Pre-Construction Eelgrass Survey. Pre-Construction Eelgrass Survey. A valid pre-construction eelgrass (*Zostera marina*) survey shall be completed during the period of active growth of eelgrass (typically March through October). The pre- construction survey shall be completed within 60 days before the start of construction. The survey shall be prepared in full compliance with the "California Eelgrass Mitigation Policy" dated October 2014 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Wildlife. The applicant shall submit the eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any development. If the eelgrass survey identifies any eelgrass within the project area which would be impacted by the proposed project, the development shall require an amendment to this permit from the Coastal Commission or a new coastal development permit.

B. Post-Construction Eelgrass Survey. If any eelgrass is identified in the project area by the survey required in subsection A of this condition above, within 30 days of completion of construction if completion of construction occurs within the active growth period, or within the first 30 days of the next active growth period following completion of construction that occurs outside of the active growth period, the applicant shall survey the project site to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the "California Eelgrass Mitigation Policy" dated October 2014 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Wildlife. 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 by project construction, the applicant shall replace the impacted eelgrass at a minimum 1.38:1 ratio on-site, or at another appropriate location subject to the approval of the Executive Director, in accordance with the California Eelgrass Mitigation Policy. Any exceptions to the required 1.38:1 mitigation ratio found within CEMP shall not apply. Implementation of mitigation shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is legally required.

7. Pre-construction *Caulerpa Taxifolia* Survey

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

B. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries Service.

C. Within five (5) business days of completion of the survey, the applicant shall submit the survey:
   (1) for the review and approval of the Executive Director; and
   (2) to the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through California Department of Fish & Wildlife (858/467-4218) National Marine Fisheries Service (562/980-4043).

D. If *Caulerpa taxifolia* is found within the project or buffer areas, the applicant shall not proceed with the project until 1) the applicant provides evidence to the Executive Director, subject to concurrence by the Executive Director, that all *C. taxifolia* discovered within the project and buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised the project to avoid any contact with *C. taxifolia*. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

8. Conformance with Proposed Plans. The applicant shall conform to the plans dated April 2017, including the restoration of 10.79 square feet of soft bottom habitat at 16612 Channel Lane, Hunting Beach (to be used as mitigation for soft bottom impacts at the subject site) as described in the Marine Biological Assessment for a Seawall Replacement Project, prepared by Coastal Resources management, Inc., dated October 14, 2016 and as described in the coastal development permit application. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

9. Construction Responsibilities and Debris Removal. The permittee shall comply with the following construction related requirements:

A. No demolition or construction materials, equipment, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain or tidal erosion and dispersion;

B. Any and all debris resulting from demolition or construction activities, and any remaining construction material, shall be removed from the project site within 24 hours of completion of the project;

C. Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters;

D. Machinery or construction materials not essential for project improvements will not be allowed at any time in the intertidal zone;

E. If turbid conditions are generated during construction a silt curtain will be utilized to control turbidity;

F. Floating booms will be used to contain debris discharged into coastal waters and any debris discharged will be removed as soon as possible but no later than the end of each day;

G. Non buoyant debris discharged into coastal waters will be recovered by divers as soon as possible after loss;

H. The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction;

I. Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the coastal zone, a Coastal Development Permit or an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required;

J. All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil;

K. Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material;

L. Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems;

M. The discharge of any hazardous materials into any receiving waters shall be prohibited;

N. Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related

petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible;

O. Best Management Practices (BMP's) and Good Housekeeping Practices (GHP's) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity; and

P. All BMP's shall be maintained in a functional condition throughout the duration of construction activity.

10. Best Management Practices Program

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

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

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

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

11. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that 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.

12. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** By acceptance of this permit, the applicant, on behalf of 1) themselves; 2) their successors and assigns and 3) any other holder of the possessory interest in the development authorized by this permit, acknowledge and agree (i) that the site may be subject to hazards from waves, storm waves, flooding and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) to agree to include a provision in any subsequent sublease or assignment of the development authorized by this permit requiring the sublessee or assignee to submit a written agreement to the Commission, for the review and approval of the Executive Director, incorporating all of the foregoing restrictions identified in (i) through (v).

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION & LOCATION

The proposed project is located at 16612 Channel Lane, on Huntington Harbour, in the City of Huntington Beach. The landward portion of the subject site is developed with a single-family residence. Also present at the subject site are a cantilevered deck and a private boat dock. The proposed project includes repair of the deteriorating bulkhead, removal of an existing 28-foot long deteriorating wooden cantilevered deck and construction of a 43.5-foot long, concrete deck cantilevered five feet beyond the bulkhead, and removal and replacement of the existing dock float (re-using the two existing piles in place) on a harbor front lot. The project plans are included in **Exhibit 2** (proposed) and **Exhibit 3** (existing). More specifically, the applicant proposes the following.

Boat Dock
Replace the existing boat dock float and gangway and re-use in-place the two existing dock piles. Both the float to be removed and proposed float are roughly "L" shaped. The replacement float will have the same area as the float to be removed, 510 square feet. The proposed boat dock alignment will conform with the City's required setbacks at the site, eliminating a small area of the existing float that extends beyond the side setback (See Exhibit 3 page 1).

Cantilevered Deck
Remove a 28-foot, 2-inch long by five-foot wide deteriorating wooden deck cantilevered five feet over the water and replace it with a new 43-foot, 6-inch long by five-foot concrete deck cantilevered

five feet over the water with a 42-inch high, etched glass railing. Regarding the existing deck, the applicant's coastal engineer states: "*The existing cantilever deck is an old timber structure that has wood rot, is failing and needs to be removed for safety.*"

The proposed deck will be sloped such that all drainage will be directed landward to the lot and drained to a dry weather diversion to promote infiltration and filter the run-off from the deck prior to leaving the site. In addition, soaps, paints, detergents or any products containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye will not be used on the deck and so will not be allowed to drain into the harbor waters. The proposed deck construction will not disturb harbor waters or harbor bottom sediments. Additionally, **Special Condition 10** requires the applicant to incorporate water quality and best management practices (BMP) measures into the project.

Bulkhead
A Bulkhead Condition Report (Report) was prepared by Gregory Reid of Streamlinewest Engineering, dated August 2017. The Report indicates that "*Probing beneath the [bulkhead] footing revealed that the voids extend over 4 feet beneath the footing. The extent of the voids indicates likely pile exposure since the piles are typically about two feet back from the face of the footing.*" The Report further states: "*Due to the small size of the voids, the piles could not be observed and their current condition could not be evaluated. However, the exposure of the piles by the voids beneath the footing could allow marine borers to attack and deteriorate the piles.*" The applicant's coastal engineering consultant, in the permit application, states that "… *deterioration of the timber piles can result in the failure of the seawall structure* … ." The Report finds that the bulkhead's concrete super structure (face panel) appears to remain in good condition, with no cracking observed.

To address the deteriorating condition of the bulkhead and the potential adverse effects on stability and structural integrity of the existing residence at the subject site, the applicant is proposing to remove the concrete cut-off wall that extends beneath the toe of the bulkhead footing to allow the evaluation of the condition of the timber piles. This evaluation cannot occur without approval of a coastal development permit due to the need to remove the large amounts of concrete debris present on the harbor bottom along the bulkhead footing, as well as removing the concrete cut-off wall. Once the evaluation of the condition of the timber piles occurs, the piles that are found to have been deteriorated to a level that jeopardizes the stability of the bulkhead structure will be repaired.

Repair of the deteriorated timber piles will include removing all deteriorated timber from the pile surface and within the footing pocket, filling the voids in the pocket prior to placing fiberglass jacket around the pile, and cutting the jacket flush with the bottom of the footing. After filling the jackets with epoxy grout, gaps between the jacket and footing will be filled with paste and trowel around the jacket and bottom of footing level. The jacket will extend a minimum of 18 inches below the deteriorated section of the pile. Spacers will be placed between good pile and the jacket. The bottom of the jacket will be sealed prior to filling the jacket with epoxy grout (See Exhibit 3 page 2).

After the piles have been repaired, existing concrete overpour at the toe of the bulkhead footing will be removed to allow the installation of panels (sheet piles) flush with the vertical face of the bulkhead footing. The panels are 7/16-inch carbon fiber reinforced, marine grade, vinyl ester resin, with 2-inch by 2-inch interlocks. The panels will be installed along the toe of the existing bulkhead

footing in order to seal off the void, allow filling of the voids and reduce the exposure of the timber piles to deterioration. The sheetpile panels will be installed across the entire width of the bayward property line, a distance of 61-feet, 4-inches. Installation of the panels will be performed with a small impact hammer from a water-side based work platform. Due to the varying mud line depth along the toe of the bulkhead, the actual depth that the panels will extend into the harbor bottom below the bottom of the footing will vary. The minimum amount of panel penetration needed for structural stability has been determined by the coastal engineer to be 3.5 feet, which is the proposed minimum depth.

The panels will provide a barrier to seal off the voids. After installation of the panels, grout will be injected into the voids beneath the footing and around the timber piles supporting the bulkhead. The panels will have holes in them spaced approximately every 4-feet. The pre-mixed grout will be pumped through a hose and injected through the holes in the panels to fill the void under the footing and around the timber piles. Since the panels will be installed prior to the injection of the grout to fill the voids beneath the seawall, dispersion of the grout into the harbor will be prevented.

As the grout is being pumped into a void, the holes in the adjacent panels will be closely monitored to ensure that grout is not being released into the water. Once grout is observed at an adjacent hole, pumping will be halted immediately and the injection holes will be temporarily plugged until the grout has hardened. This process will be repeated until all the voids have been filled with grout. Sealing off the voids and filling them with grout is intended to reduce the exposure of the timber piles beneath the footing and reduce the potential for continued deterioration from marine borers and other forms of deterioration.

As part of the proposed project, concrete debris present on the harbor bottom along the bulkhead footing will be removed. In addition, concrete overpour is proposed to be removed. The concrete overpour is excess concrete that overflowed the forms during the original construction of the bulkhead (c.1960) and provides no structural function. The area of concrete overpour to be removed totals 10.79 square feet. The area of fill resulting from the proposed installation of sheet pile panels is 3.28 square feet. Thus, the proposed project will result in an increase of approximately 7.51 square feet of soft bottom habitat. Since the area of concrete overpour proposed for removal exceeds the area of sheetpile being installed, there will be an increase in soft bottom habitat as a result of the proposed project. **Special Condition 5** requires the applicant to carry out this soft bottom habitat creation mitigation as proposed.

Alternatives to the proposed bulkhead repair considered were: 1) installation of driven sheet piles with rip rap rock at the base; 2) concrete encasement of the existing wood piles in place; 3) the use of steel sheet piles rather than vinyl ester resin (a type of plastic); 4) placement of filter fabric across the void to be held in place by new rock; and 5) repair of individual piles as they become damaged (do nothing alternative). All of the alternatives to the proposed project would result in greater impacts to the marine environment. Thus, the proposed project is the least environmentally damaging feasible alternative.

The Commission has approved numerous similar bulkhead repair projects in Huntington Harbour including Coastal Development Permits 5-16-0037 (Cyprus); 5-14-0117(Woo); 5-12-006 (Nielsen); 5-12-007 (Wirtz); 5-12-019 (Nichols); 5-11-106 (Hernandez); and 5-03-078 (Buchanan).

Sea Level Rise

The proposed project includes replacement of an existing boat dock and cantilevered deck and repair of the existing bulkhead. A Bulkhead Condition Report (Report) was prepared by Gregory Reid of Streamlinewest Engineering, dated August 2017. As described above, the existing bulkhead is deteriorating and in need of repair. The Report assessed the potential sea level rise and other coastal hazards potentially expected at the site over the 75 year life of the project. The Report states:

> *"In order to address the potential for SLR to affect the proposed deck, the seawall could be extended and the deck raised to further protect the property from periodic high tide events. Raising the structure (seawall and deck) to the elevation of the house (10.9 Ft, MLLW) would protect the property from high tide events through the year 2092 (75 years) using the USACE High projections for SLR or until 2082 using the worst case SLR projections."*
>
> *"Since the extreme SLR could cause coastal impacts before the end of the 75 year design period, the potential to further raise the seawall was evaluated. Evaluation of the seawall and site indicate that it is possible to raise and maintain the seawall within the existing footprint particularly if light weight construction methods like cellular concrete are utilized for backfill. Evaluations show that the seawall and associated improvements could be raised almost 3 feet in the future which would protect the property from high tide events well beyond the year 2100."*

The Report concludes:

> "*Due to the low lying (near sea level) nature of the site and surrounding area, concerns for potential, future sea level rise impacts and flooding have been identified at the end of a 75 year period. The existing residence was found to not have the first floor breached by rising water levels until just after a 75 year period using the USACE High SLR prediction or in about 65 years using the worst case NRC 2012 prediction.*"

And:

> "*Since potential impacts from coastal hazards were identified at the site as a result of SLR within a 75 year period, potential mitigation measures were evaluated and the following corrective measures were identified. The raising of the seawall and site improvements would protect the site through the year 2100.*"

With the proposed repairs, the bulkhead is expected to protect the existing residence at the site for approximately 65 years. However, the top of the bulkhead could be raised an additional 3 feet. With that increased bulkhead height, the existing residence would be expected to be safe from sea level rise impacts for the next approximately 75 years. Moreover, the Report concludes that the increased bulkhead height could be accommodated without the need to extend the footprint of the bulkhead bayward.

Huntington Harbour was developed in the 1960s, generally constructed using cast in place, reinforced concrete seawall/bulkheads with foundations supported on vertical and battered (i.e., angled) untreated timber piles. Single-family residences are located behind the bulkhead and private

boat docks associated with the residences are located seaward of the bulkhead. Most of the Huntington Harbour water frontage is developed with single-family homes, many of which have cantilevered decks and boat docks over public waters, including properties adjacent to the project site. The proposed boat dock, deck and bulkhead are associated with the adjacent single-family residential use. The proposed dock, deck and bulkhead are similar in function to the other docks, decks and bulkheads associated with residential development within Huntington Harbour. Virtually the entire water frontage in Huntington Harbour is supported by bulkheads. The proposed development is consistent with past Commission actions in the area.

The boat dock and, although cantilevered above the water, the proposed deck, would preclude the general public from utilizing the public water area underneath the deck for recreation or navigational purposes. However, the proposed dock and deck will not expand further bayward than the existing dock and deck or further than other existing docks and decks in the area. There is no sandy beach area along the bulkhead, therefore, in this case, the replacement of a deck cantilevered 5 feet beyond the bulkhead and of the boat dock would not create any new impediment to public access as there is no opportunity for the public to walk in front of the bulkhead at this site or immediate area. The nearest public access in the area is the public sandy beach approximately 1000 feet southwest of the site at Sunset Beach. The proposed development will not have any significant adverse impact on public access to the coast or to nearby recreational facilities. In this case, there is an existing significant pattern of development of private boat docks and decks cantilevered five feet over the bulkhead. Thus, the replacement of the boat dock and of the cantilevered deck at this site and in this location would not be establishing a new pattern of development (nor create an adverse public access condition, as previously mentioned). The Commission imposes **Special Condition 11** stating that the approval of a coastal development permit for the project does not waive any public rights or interest that exist or may exist on the property or on adjacent public waters.

The proposed project will include the use of barges or other equipment that will be secured utilizing the existing dock and/or piles. No anchors or spuds will be used. Disturbance of the harbor bottom is limited to the necessary bulkhead repair activities described above. In addition, the applicant proposes to incorporate Best Management Practices into the project during construction in order to reduce adverse impacts to harbor waters. These BMPs include monitoring turbidity during construction activities to ensure levels don't exceed regulatory levels. If such levels are exceeded, construction activities will be halted until turbidity decreases and corrective actions are implemented. Corrective actions may include the deployment of the turbidity curtain or reducing the rate of construction activities to decrease the amount of turbidity being created. In addition, all debris and trash will be disposed in suitable containers on land at the end of each construction day. Further, no discharge of hazardous materials will occur. In addition, Regional Water Quality Control Board (Santa Ana Region) water quality specifications for discharges to limit the dispersion of any turbidity plume and prevent water quality degradation will be implemented and adhered to for the duration of construction. Additionally, **Special Condition 10** requires the applicant to observe water quality and best management practices (BMP) measures into the project during and post-construction.

The City of Huntington Beach has a certified Local Coastal Program. However, due to the project location seaward of the mean high tide line, the project is within an area of the Commission's retained permit jurisdiction. Nonetheless, the City's certified Local Coastal Program may be used as guidance. The land use designation at the site is Open Space – Water (OS – W). The site is zoned

Open Space Water Recreation. The proposed development is consistent with the City's certified LCP, specifically with Implementation Plan Chapter 213 Open Space District, which allows private cantilevered decks abutting residential uses, and with Chapter 210, which provides standards for cantilevered decks in Huntington Harbour in the Open Space Water Recreation zone. The City of Huntington Beach reviewed the proposed plans and issued Approval-in-Concept for the dock, deck and bulkhead project, dated May 9, 2017. In this area of Huntington Harbour, the water area is administered by the City of Huntington Beach.

Plastics in the Marine Environment
The Commission has expressed concern about the use of plastic in the marine environment. In past actions, the Commission has accepted plastic for the proposed purpose when monitoring is included and when future alternatives are considered. Consequently the plastic sheet piles must be monitored to ensure that they are maintained in an environmentally safe operating condition and replaced when damage or degradation has occurred. To minimize the potential of the plastic sheet piles breaking apart and entering the water due to damage or deterioration, **Special Condition 1** is imposed which requires that the project be carefully monitored at least once every two years for the life of the project. Further, **Special Condition 4** requires the applicant to submit an application for an amendment to this permit or a new coastal development permit if new information becomes available that indicates that plastic has harmful effects on the marine environment, and that environmentally superior, feasible alternative(s) are available. The Commission has found such conditions necessary in past actions (5-14-0117 (Woo); 5-12-006 (Nielsen); 5-12-007 (Wirtz); 5-12-019 (Nichols); 5-11-106 (Hernandez); 5-03-078 & 5-03-078-A1 (Buchanan), 5-06-436 & 5-06-438 (Tetra Tech, et al).

Eelgrass
An eelgrass survey was conducted on July 20, 2016 and submitted with the CDP application as part of the Pre-Construction Marine Biological Assessment for a Seawall Replacement Project, prepared by Coastal Resources Management, Inc, and dated October 14, 2016. The survey found no eelgrass within the project vicinity. Due to the ephemeral nature of eelgrass, however, an eelgrass certification is only valid until the next period of active growth. More than a year has elapsed since the survey was conducted, and more time may elapse before construction commences. Even though the eelgrass inspection indicates that no eelgrass is present, and therefore eelgrass is not expected to be impacted by the proposed project, eelgrass may have established within the project area between the time the survey was conducted and commencement of construction. If eelgrass is present in the project area, adverse impacts from the proposed project could result. Therefore, measures to avoid or minimize such potential impacts must be in place in order for the project to be found consistent with Section 30230 of the Coastal Act. Therefore, the Commission imposes **Special Condition 6** which requires that a current pre-construction eelgrass survey be conducted within the boundaries of the proposed project during the period of active growth of eelgrass (typically March through October), and which identifies steps to be taken should eelgrass be found onsite via a future survey.

Caulerpa taxifolia
The Pre-Construction Marine Biological Survey Assessment also surveyed the site for *Caulerpa taxifolia*. None was found at the subject site. However, *Caulerpa taxifolia* surveys are valid for a limited period of time (90 days for *Caulerpa taxilfolia*). Due to the fact that commencement of construction will not occur during the period the survey remains valid, **Special Condition 7** is imposed which requires a *Caulerpa taxifolia* survey not more than 90 days prior to commencement

of construction. If construction does not occur within the respective time periods, subsequent surveys will be required. **Special Condition 7** identifies the procedures necessary to be completed prior to beginning construction in case the survey expires prior to commencement of construction. In addition, the special condition identifies post-construction procedures.

Conclusion

The proposed bulkhead repair project is necessary to protect the existing residence. Section 30235 of the Coastal Act requires the Commission to approve such projects when necessary to protect existing structures and when designed to eliminate or mitigate adverse impacts. A number of alternatives were considered, and the proposed alternative has been found to be the least environmentally damaging alternative. The proposed project includes on-site mitigation that increases creation of soft bottom habitat at the site. As proposed, and as conditioned, measures will be in place to protect water quality during and after construction. Also, as conditioned, surveys will be conducted pre- and post-construction to assure that any unanticipated impacts to eelgrass that may occur are addressed and to assure that the project will not result in the spread of the invasive algae *Caluerpa taxifolia*. Therefore, as conditioned, the Commission finds that the project is consistent with Sections 30210 and 30231 regarding protection of the marine environment.

B. PUBLIC ACCESS

The proposed development, as conditioned, will not affect the public's ability to gain access to, and/or to use the coast and nearby recreational facilities. Therefore, as conditioned, the development conforms to Sections 30210 through 30214, Sections 30220 through 30224, and 30252 of the Coastal Act.

C. RECREATION

The proposed development, as conditioned, does not interfere with public recreational use of coastal resources. The proposed development, as conditioned, protects coastal areas suited for recreational activities. Therefore, the Commission finds that the proposed development, as conditioned, is in conformity with Sections 30210 through 30214 and Sections 30220 through 30223 of the Coastal Act regarding the promotion of public recreational opportunities.

D. WATER QUALITY

The proposed work will be occurring on, within, or adjacent to coastal waters. The storage or placement of construction material, debris, or waste in a location where it could be discharged into coastal waters would result in an adverse effect on the marine environment. To reduce the potential for construction related impacts on water quality, the Commission imposes special conditions requiring, but not limited to, the appropriate storage and handling of construction equipment and materials to minimize the potential of pollutants to enter coastal waters. To reduce the potential for post-construction impacts to water quality the Commission requires the continued use and maintenance of post construction BMPs. As conditioned, the Commission finds that the development conforms with Sections 30230 and 32031 of the Coastal Act.

E. LOCAL COASTAL PROGRAM

An LCP for the City of Huntington Beach was effectively certified in March 1985. However, the proposed development is occurring within an area of the Commission's original permit jurisdiction,

due to the project location seaward of the mean high tide line. Consequently, the standard of review is the Coastal Act and the City's LCP may be used as guidance. As conditioned, the proposed development is consistent with Chapter 3 policies of the Coastal Act and with the certified LCP for the area.

F. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

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 City of Huntington Beach is the lead agency responsible for CEQA review. As determined by the City, this project is categorically exempt from CEQA as a Class 1; Section 15301 exemption. As conditioned, there are no additional feasible alternatives or additional feasible mitigation measures available which will substantially lessen any significant adverse impact the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified possible impacts, is consistent with CEQA and the policies of the Coastal Act.

APPENDIX A - SUBSTANTIVE FILE DOCUMENTS

Bulkhead (Seawall) & Cantilever Deck, Condition & Coastal Hazards Analysis, prepared by Streamline West Engineering, dated August 2017 (SWE#16006).

Marine Biological Assessment for a Seawall Replacement Project at 16612 Channel Lane, Huntington Beach, CA, prepared by Coastal Resources Management, Inc, dated October 14, 2016.

Coastal Development Permit Files for Coastal Development Permits 5-16-0037 (Cyprus); 5-14-0117(Woo); 5-12-006 (Nielsen); 5-12-007 (Wirtz); 5-12-019 (Nichols); 5-11-106 (Hernandez); and 5-03-078 (Buchanan).

City of Huntington Beach Certified LCP