

**CALIFORNIA COASTAL COMMISSION**

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

**F16d**

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**STAFF REPORT: REGULAR CALENDAR**

**Application Number:** 5-16-0877

**Applicant:** Kent Browning

**Agent:** Chris DellAringa

**Project Location:** 11 Sea Isle Drive, Treasure Island, City of Long Beach, Los Angeles County.

**Project Description:** Replacement of existing 140-foot long seawall along the western property line, and demolition of both seawalls that form the western and southern boundaries of the existing single-family residence on a corner bayfront lot. A new concrete cap and glass handrail are also proposed.

**Staff Recommendation:** Approval with Conditions

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**SUMMARY OF STAFF RECOMMENDATION**

The applicant's proposal involves: 1) the replacement of the existing seawall along the western alignment of the residential site, which will consist of installing approximately 140 feet of steel sheet pile directly behind (landward of) the existing concrete seawall, or, if that proves infeasible, in front of the existing seawall, and 2) the demolition of both the southern and western existing concrete seawalls after the new seawalls are installed. The new 117-foot long seawall proposed to be constructed along the southern alignment of the property received a Local Coastal Development Permit from the City of Long Beach, as it will be installed landward of the existing seawall, within the jurisdiction of the City's certified Local Coastal Program (LCP).

According to the applicant's engineer, both of the existing concrete seawalls are structurally unsound and must be replaced. The seawalls contain the fill upon which the applicant's house exists on Treasure Island in Alamitos Bay. While the applicant's proposal includes the construction of new seawalls on the landward side of both existing seawalls, this plan may be technically infeasible for the western alignment, due to limited work space between one segment of the seawall and the residence, and the threat of collapse when the existing seawall's tiebacks are cut during construction. The applicant is applying for a coastal development permit from the Commission to install the new seawall along the

western boundary because it may be necessary to use sheet piles on the seaward side of the wall (in the Commission's original jurisdiction).

In order to avoid the placement of any fill within the bay on the west side of the residence, the applicant is proposing to drive metal sheet-piles behind the existing 140-foot long seawall, cutting existing tiebacks loose as they are encountered, and if the wall exhibits movement or becomes a safety hazard as determined by the certified engineer on site, the workers will begin installing the metal sheet-piles in front of the existing concrete seawall to prevent damage to the house that could occur if the fill behind the wall collapses. This contingency plan (placement of sheet-piles on the water-side of the seawall) would result in the displacement of up to 154 square feet of soft bottom bay habitat. The contingency plan would only be implemented if and when the primary plan (build the replacement seawall on the inland side of the old seawall) is deemed infeasible during implementation. In either case, there will be no net loss of soft bottom habitat because the placement of the new 117-foot long seawall inland of the existing seawall on the southern side of the house will remove approximately 308 square feet of fill from the bay. Therefore, the project as built will result in an overall net reduction of fill of coastal waters and an increase in soft bottom habitat.

Staff is recommending that the Commission **approve** a coastal development permit for the proposed development with special conditions to mitigate the project's impacts on coastal resources. The recommended special conditions are: Assumption of risk, no further seaward extension of the shoreline protective devices, submission of final as-built plans, pre-construction and post-construction eelgrass surveys, preconstruction caulerpa taxifolia survey, construction best management practices, compliance with U.S. Army Corps of Engineers requirements regarding the development, and bird-safe glass.

**See Page Four for the Motion to approve the permit application.**

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## **EXHIBITS**

[Exhibit 1 – Project Location](#)

[Exhibit 2 – Site Plans](#)

[Exhibit 3 – Eelgrass Survey](#)

[Exhibit 4 – Seawall Section](#)

## I. MOTION AND RESOLUTION

**Motion:** *"I move that the Commission **approve** Coastal Development Permit Application No. 5-16-0877 pursuant to the staff recommendations."*

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 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. 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 applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicant 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. **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).
  
2. **No Future Seaward Extension of the Shoreline Protective Device.** By acceptance of this coastal development permit, the applicant waives, on behalf of itself and all successors and assigns, any rights that may exist under Public Resources Code Section 30235 to extending development seaward of the shoreline protective device, except as approved pursuant to this coastal development permit.
  - A) By acceptance of this coastal development permit, the applicant agrees, on behalf of itself and all successors and assigns, that: 1) no future repair or maintenance, enhancement, reinforcement, modifications to address rising sea level, increased risk of flooding or other hazards, or any other activity affecting the shoreline protective device approved pursuant to Coastal Development Permit 5-16-0877, shall be undertaken if such activity extends the footprint seaward of the subject shoreline protective device, and 2) no activity (i.e., attaching tiebacks, etc.) affecting the shoreline protective device approved pursuant to Coastal Development Permit 5-16-0877 shall be undertaken if such activity would preclude the requirement for no future seaward extension of the shoreline protective device. All future repair or maintenance, enhancement, reinforcement, or modifications shall be evaluated for compliance with this condition pursuant to a coastal development permit.
  
  - B) Prior to issuance of the coastal development permit, the applicant shall provide the Executive Director with evidence that the proposed project does not include any construction barriers that would preclude the requirement for no future seaward extension of the shoreline protective device. This can be demonstrated through identification of the construction steps necessary for the future construction of a shoreline protective device (i.e., new seawall) that is in the same footprint, or inland of, the currently approved development; and submittal of plans that identify all structures that will need to be

removed and/or modified in order to ensure that there will be no future seaward extension of the shoreline protection.

**3. Final As-Built Plans.**

a. Installation of any portion of the new wall seaward of the existing western wall shall only be allowed to the extent that, during construction and based on on-the-ground conditions, the project engineer determines that it is technically infeasible to construct the western wall, or any portion of it, landward of the existing wall. Technical infeasibility includes if there is a threat of collapse when the existing seawall's tiebacks are cut during construction, or if there are other safety or engineering constraints that preclude the safe construction of the new wall, or any portion of it, on the landward side of the existing wall.

b. Within six months after completion of the seawall construction, the applicant shall submit final as-built plans demonstrating the exact location of the seawalls installed along the western and southern boundaries in relation to the former locations of the seawalls that were removed. The final as-built plans shall include a narrative explaining the constraints encountered at each location.

c. To the extent any portion of the new western seawall is constructed landward and within the City's LCP jurisdiction, the applicant shall obtain any necessary local approvals.

**4. Pre-and Post-Construction Eelgrass Survey(s).**

a. 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 (see [http://www.westcoast.fisheries.noaa.gov/habitat/habitat\\_types/seagrass\\_info/california\\_eelgrass.html](http://www.westcoast.fisheries.noaa.gov/habitat/habitat_types/seagrass_info/california_eelgrass.html)) adopted by the National Marine Fisheries Service (except as modified by this special condition) 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.

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, 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 (see [http://www.westcoast.fisheries.noaa.gov/habitat/habitat\\_types/](http://www.westcoast.fisheries.noaa.gov/habitat/habitat_types/)

seagrass\_info/california\_eelgrass.html) (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, the applicant shall replace the impacted eelgrass at a minimum 1.38:1 ratio on-site, or at another location, in accordance with the California Eelgrass Mitigation Policy. All impacts to eelgrass habitat shall be mitigated at a minimum ratio of 1.38:1 (mitigation: impact). Any exceptions to the required 1.38:1 mitigation ratio found within the California Eelgrass Mitigation Policy shall not apply.

**5. 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 (see [http://www.westcoast.fisheries.noaa.gov/habitat/habitat\\_types/seagrass\\_info/caulerpa\\_taxifolia.html](http://www.westcoast.fisheries.noaa.gov/habitat/habitat_types/seagrass_info/caulerpa_taxifolia.html) ).
- C. Within five (5) business days of completion of the survey, the applicant shall submit the survey:
  - i. for the review and approval of the Executive Director; and
  - ii. to the Surveillance Subcommittee to the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Wildlife (858-467-4218, [William.Paznokas@wildlife.ca.gov](mailto:William.Paznokas@wildlife.ca.gov)) or Bryant Chesney, National Marine Fisheries Service (562-980-4037, [Bryant.Chesney@noaa.gov](mailto:Bryant.Chesney@noaa.gov)), or their successors.
- 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 that all *C. taxifolia* discovered within the project and/or 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.

6. **Protection of Marine Resources.** In order to minimize adverse environmental impacts and the unpermitted deposition, spill or discharge of any liquid or solid into Alamitos Bay, the applicant shall implement the following demolition, staging, and construction best management practices during demolition and construction plans:
- A. Silt curtains will be utilized to control turbidity during all in-water construction activities, including the placement of sheet piles.
  - B. Floating booms shall be maintained around the project site use and around barges containing equipment in order to capture floating debris during all construction phases.
  - C. Where permitted, disturbance to the ocean bottom and intertidal areas shall be minimized.
  - D. Machinery or construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones.
  - E. Prior to grading and/or construction, all large motile native marine invertebrates, including molluscs (snails), echinoderms (sea stars, urchins, sea cucumbers), arthropods (crabs), and any other large motile native marine invertebrates found in the area to be disturbed, including seawalls, piles and dock floats, shall be removed from the project site and relocated to another part of the bay.
  - F. Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material.
  - G. Netting, sandbags, tarps and/or other forms of barriers shall be installed between the water and all work areas and equipment storage areas to prevent any unpermitted material from entering Alamitos Bay.
  - H. The storage or stockpiling of soil, silt, other organic or earthen materials, or any materials and chemicals related to the construction shall not occur where such materials/chemicals could pass into the waters of Alamitos Bay or the sea. Stockpiled fill shall be stabilized with geofabric covers or other appropriate cover.
  - I. Erosion control/sedimentation BMPs shall be used to control sedimentation impacts to coastal waters during project staging and demolition. BMPs shall include a pre-construction meeting to review procedural and BMP guidelines.
  - J. Spills of construction equipment fluids or other hazardous materials shall be immediately contained on-site and disposed of in an environmentally safe manner as soon as possible. Disposal within the coastal zone shall require a coastal development permit.
  - K. Construction vehicles operating at the project site shall be inspected daily to ensure there are no leaking fluids. If there are leaking fluids, the construction vehicles shall be serviced immediately. Equipment and machinery shall be serviced, maintained and washed only in confined areas specifically designed to control runoff and prevent discharges into Alamitos Bay or the sea. Thinners, oils or solvents shall not be discharged into sanitary or storm sewer systems.

- L. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than fifty feet away from all storm drains, open ditches and surface waters.
- M. All floatable debris and trash generated by construction activities within the project area shall be disposed of as soon as possible or at the end of each day.
- N. Divers will recover non-buoyant debris discharged into coastal waters as soon as possible after loss.
- O. The applicant shall dispose of all demolition and construction debris resulting from the proposed project at an appropriate location in a timely manner. If the disposal site is located within the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place.
- P. Any wood treatment used shall conform with the specifications of the American Wood Preservation Association for saltwater use. Wood treated with Creosote, CCA (Chromated Copper Arsenate), or ACA (Ammoniacal Copper Arsenate) is prohibited. No wood treated with ACZA (Ammoniacal Copper Zinc Arsenate) shall be used where it could come into direct contact with the water. All treated timber shall be free of chromium and arsenic.
- Q. In the event that hydrocarbon-contaminated soils or other toxins or contaminated material are discovered on the site, such matter shall be stockpiled and transported off-site only in accordance with Department of Toxic Substances Control (DTSC) rules and/or Regional Water Quality Control Board (RWQCB) regulations.
- R. At the end of the construction period, the applicant shall inspect the project area and ensure that no debris, trash or construction material has been left on the shore or in the water, and that the project has not created any hazard to recreation or navigation.

The applicant shall include the requirements of this condition on all plans and contracts issued for the project. The applicant shall implement and carry out the project staging and construction plan during all demolition, staging, and construction activities.

- 7. **Resource Agencies. PRIOR TO COMMENCEMENT OF CONSTRUCTION**, the permittee shall provide to the Executive Director a copy of a permit issued by U.S. Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The permittee shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. Such changes shall not be incorporated into the project until the permittee obtains a Commission amendment to this coastal development permit, unless the Executive Director issues a written determination that no amendment is legally required.
- 8. **Bird Strike Prevention. PRIOR TO INSTALLATION OF THE HANDRAILS**, the applicant shall submit revised plans showing the location, design, height, and materials of oceanfront deck railing systems, fences, screen walls, gates, windows and the like for the review and written approval of the Executive Director. Said plans shall include, at a minimum, the following requirements:

Oceanfront deck railing systems, fences, screen walls, gates, and windows and the like that are subject to this permit shall use materials designed to minimize bird-strikes with the deck railing, fence, gate, window or similar feature. Such materials may consist of all or in part of wood, wrought iron, frosted or partially-frosted glass, Plexiglas or other visually permeable barriers that are designed to prevent creation of a bird strike hazard. Clear glass or Plexiglas may be installed only if it contains UV-reflective glazing that is visible to birds or is used with appliqué (e.g. stickers/decals) designed to reduce bird-strikes by reducing reflectivity and transparency. Any appliqué used shall be installed to provide coverage consistent with manufacturer specifications (e.g. one appliqué for every 3 foot by 3 foot area). Use of opaque or partially opaque materials is preferred to clear glass or Plexiglas and appliqué. All materials and appliqué shall be maintained throughout the life of the development to ensure continued effectiveness at minimizing bird strikes and shall be maintained at a minimum in accordance with manufacturer specifications.

Within 60 days of the completion of the development authorized by coastal development permit CDP No. 5-16-0877, the applicant shall submit evidence in the form of a narrative report, for the review and written approval of the Executive Director, showing that all deck railing systems, fences, screen walls, gates, and windows, or other features covered by this condition installed subject to this permit were installed in accordance with this condition.

#### **IV. FINDINGS AND DECLARATIONS**

##### **A. PROJECT DESCRIPTION**

The project site is situated on a corner lot of Treasure Island, and is developed with a private single-family residence which maintains two deteriorating seawalls along the western and southern boundaries fronting Alamitos Bay ([Exhibit 1](#)). The applicant is proposing to replace the existing seawall along the western boundary, and demolish both seawalls of the residential site. A new concrete cap and glass handrail are also proposed.

The applicant received a local coastal development permit from the City of Long Beach for the construction of the new 117-foot seawall, immediately inland of the existing seawall along the southern boundary on November 5, 2016 (Local CDP Case No. 1608-18), within the City's LCP jurisdiction.

The applicant is proposing to install the new 140-foot seawall along the western boundary landward of the existing one ([Exhibit 2](#)). According to the applicant, the structural instability of the existing concrete seawall and limited work space between the seawall and the existing residential structures may make landward installation of the new wall technically infeasible, which will be determined by a certified engineer onsite during construction (**Special Condition 3**). The applicant will begin driving the cantilevered steel sheet piles behind the existing concrete seawall from south to north, cutting the existing tiebacks as they are encountered. If the existing seawall does not move or become a safety issue for the adjacent structures, they will continue to remove tiebacks and drive in the sheet piles behind the existing wall as proposed. If the wall does move as the tiebacks are cut, the applicant will begin to install the steel sheet piles on the waterside of the existing vertical concrete seawall to prevent failure of the wall. Once the new wall is completely installed, the applicant will remove the existing concrete seawall, and then install the concrete cap and handrail consistent with the new wall along the southern alignment.

If the certified engineer does in fact determine on site that the new steel wall must be installed seaward of the existing concrete wall to prevent seawall failure, the project will displace no more than 154 square feet of soft bottom habitat of open coastal waters. However, the installation of the new seawall and removal of the existing wall along the southern alignment will result in an increase of approximately 308 square feet of soft-bottom habitat, thereby resulting in an overall net reduction in fill as a result of the project.

The Naples area of Long Beach, including Treasure Island, was developed in the early 1900s by dredging the marsh land of the delta of the San Gabriel River and filling the adjacent land. According to historical topographic maps, the original building and seawalls along the perimeter of the project site were built in the late 1930s. According to the applicant, the existing vertical concrete seawalls are in a deteriorated condition and are in danger of failing, thereby placing the existing residential structures and adjacent public facilities and infrastructure in danger from erosion. If the seawalls were to fail, it would also cause fill of open waters, which could cause damage to marine resources and navigation.

The proposed development would occur on the private property located immediately inland of the seawalls and may also occur (under the contingency plan) in coastal waters (water side of the seawalls). The submerged area of Alamitos Bay (and other waterways) is within the Commission's original jurisdiction. Pursuant to the certified City of Long Beach Local Coastal Program (LCP), the portion of the proposed project that is situated inland of the existing seawalls (the new seawall along the southern alignment) falls within the City's permitting jurisdiction, and the applicant has received a local CDP for that portion of the work. To the extent any portion of the new western seawall is constructed landward and within the City's LCP jurisdiction, the applicant shall obtain local approvals from the City if necessary as conditioned by **Special Condition 3**.

## **B. SHORELINE PROTECTIVE STRUCTURES**

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.*

Section 30253 of the Coastal Act states, in part:

*New development shall do all of the following:*

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

The proposed seawall project is necessary to protect and provide structural support for the existing home on Treasure Island. According to the geotechnical report submitted by the applicant entitled

*Geotechnical Investigation Report Proposed New Seawall 11 North Sea Isle Drive, Long Beach, CA*, conducted by Geotechnical Professionals, Inc. on May 4, 2015, the existing vertical concrete seawalls, which were built in the late 1930s, are in a deteriorated condition, exhibit signs of variable degrees of structural distress, and are in danger of failing. The seawall along the western alignment exhibits some tilt, while the seawall on the south side exhibits no measurable tilt. Over 95 percent of the seawall cap along both alignments is in a state of advanced deterioration, and the report recommends replacement of the seawalls on both the west and south sides of the site. The plans have been reviewed by Commission Staff Coastal Engineer, Dr. Lesley Ewing, who agrees with this recommendation.

The Treasure Island seawalls support the fill upon which the private residence exists, along with some public infrastructure landward of the residence including roads, sidewalks, etc. The underlying soil behind the seawalls is primarily hydraulic fill, which is highly susceptible to liquefaction and spreading during earthquakes. The seawalls also protect the structural integrity of the island from tidal activity. If the seawalls were removed and not replaced, gravity and erosion from tidal activity would destabilize the banks of the island, and endanger the public and private development that exist inland of the seawalls. Therefore, the proposed project is required to protect existing structures. In addition, if the existing seawalls were to fail, large amounts of fill material would be discharged into the bay causing adverse impacts on coastal resources, including the quality of coastal waters, biological productivity of the soft bottom habitat, and coastal-dependent public trust uses associated with public access in the water and along the shoreline like fishing, swimming and other public trust uses. Thus, the proposed project is also required to serve coastal-dependent uses.

The existing seawalls, in their deteriorated state, pose a significant risk to life and property. The proposed project will improve the stability of the land, and the existing public and private improvements that exist on the land, and will reduce risks to life and property by providing improved structural support. Section 30235 states that seawalls shall be permitted in these circumstances if adverse impacts to coastal resources are mitigated. The proposed project, as conditioned, meets the requirements of Section 30235.

No development near the ocean, however, can be guaranteed to be safe from hazard. In order to minimize risks to life and property, the development has been conditioned to require that the applicant assume the risk of undertaking the development. The Commission routinely imposes conditions for assumption of risk in areas at high risk from hazards. **Special Condition 1** ensures that the applicant understands and assumes the potential hazards associated with the development.

As conditioned, the proposed project will not create or contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of additional protective devices that would substantially alter natural landforms along bluffs and cliffs. The project does not involve any landform alteration, and will not have any effect on local shoreline sand supply. Therefore, the Commission finds that the proposed development, as conditioned, conforms with Section 30235 and 30253 of the Coastal Act.

### **C. MARINE RESOURCES AND WATER QUALITY**

The Coastal Act contains policies that address development in or near coastal waters. The proposed seawall project includes development in the coastal waters of Alamitos Bay. The following Coastal Act policies require the protection of water quality and biological productivity, and require that any adverse impacts to marine resources be avoided or adequately mitigated.

The standard of review for development proposed in coastal waters is the Chapter 3 policies of the Coastal Act, including the following marine resource policies. Sections 30230, 30231, and 30233 of the Coastal Act require the protection of biological productivity, public recreation and marine resources.

Section 30230 of the Coastal Act states:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30233 (a) of the Coastal Act states:

*The diking, filling, or dredging of open waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- 1. New or expanded port, energy, and coastal-dependent industrial facilities, including commercial facilities.*
- 2. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- 3. In open coastal water, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- 4. Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- 5. Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- 6. Restoration purposes.*
- 7. Nature study, aquaculture, or similar resource dependent activities.*

Section 30240 of the Coastal Act states:

*(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*

*(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Alamitos Bay is located within a general area designated as an Essential Fish Habitat (EFH) by the Coastal Pelagic Species (CPS) and the Pacific Coast Groundfish Fisheries Management Plan (FMP). EFH is defined as the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The project area has also been identified as an EFH for many fish species and the soft bottom of this area of the bay may provide habitat for Eelgrass, which provides habitat and foraging area for a variety of fish and other wildlife.

As discussed in further detail above, the applicant is proposing to install the new steel sheet pile seawall behind the existing concrete wall along the western boundary of the residence that may result in displacement of a small amount of soft bottom habitat because the structure would displace surface water area and submerged bay bottom area. The amount of displaced habitat would not exceed 154 square feet. However, the removal of the southern seawall would result in an increase of approximately 308 square feet of soft bottom habitat, which is a net increase in soft bottom habitat of about 154 square feet in open coastal waters of Alamitos Bay. Therefore, regardless of whether the western seawall's construction necessitates installing the steel sheet pile seaward of the existing wall, in total, the project will result in a net increase of soft bottom habitat.

The proposed project will not result in the net fill of coastal waters because any displacement of soft bottom habitat along the western seawall will be offset by the new habitat area created by the removal of the southern seawall and the landward construction of its replacement, which will result in an increase in soft bottom habitat of approximately 308 square feet. Nevertheless, the project may result in new fill of some coastal waters, even though any such new fill will be more than offset by removal of other fill, thereby raising questions about its consistency with Section 30233 of the Coastal Act.

As explained in the previous section (Shoreline Protective Structures), the proposed seawall repair project is designed to protect existing development and meets the requirements of Section 30235. This provision requires the Commission to approve shoreline protection devices when necessary to protect an existing structure in danger of erosion, so long as it meets certain criteria. Although the proposed project meets the requirements of Section 30235, it still must be the least environmentally damaging alternative; feasible mitigation measures must be incorporated into the project to minimize adverse environmental effects and not adversely affect marine resources, biological productivity, and quality of coastal waters as required pursuant to Sections 30230 and 30231 of the Coastal Act. Here, the project will not have adverse impacts on these resources; however, it may result in some new fill of coastal waters, which raises a potential conflict with Section 30233. In situations such as this, Section 30235 is used as an "override" provision. Here, the proposed seawall is being approved by the Commission despite possible inconsistency with 30233 based on the "override" provision of Section 30235, which instructs the Commission to approve a shoreline protective device to protect an existing structure if specified criteria are satisfied.

### **Project Alternatives**

The applicant studied several alternative methods for the necessary seawall replacement project. Alternatives to the proposed project include no project, replacement of the seawall in the same alignment or landward of the existing seawall alignment (the landside option, which would include no

fill), temporary waterside shoring, and replacement of the seawall seaward of the existing alignment (in Alamitos Bay).

Under the no project alternative, the applicant could only pursue simple maintenance activity. However, simple maintenance could not feasibly repair the seawall, nor bring it up to present engineering, seismic and safety standards. Simple maintenance would only prolong the unsatisfactory condition of the existing seawall. Ultimately, maintenance efforts would be unable to address the deteriorating seawall and the structures would eventually fail, likely causing damage to adjacent residences and habitat in the bay.

### **Alternative Design – Landside Option**

As stated above, the proposed project involves the construction of the new seawalls directly behind the existing seawalls (further landward), which would result in no fill, and no related permanent habitat displacement. The applicant is proposing to attempt to utilize this alternative; however, given the structural constraints and physical characteristics of the site, this option may be technically infeasible if the certified engineer on site so determines. In order for Commission staff to have record of the resulting alignment of the western seawall post construction, **Special Condition 3** is imposed, requiring the applicant to submit as built plans within 60 days of construction.

### **Alternative Design – Temporary Waterside Shoring**

The applicant also studied the possibility of utilizing temporary shoring on the waterside of the western seawall to hold up the existing wall while the new one is installed behind the existing, and then remove the shoring components after completion of the new steel sheet pile seawall. According to the applicant's engineers, the structural integrity of the existing concrete wall is so compromised, that any excess vibrations caused by installing temporary shoring could cause the wall to fail, increasing the amount of fill of soft-bottom habitat. Thus, the applicant's preferred method is to attempt to begin the construction process by installing one sheet pile at a time (which will result in vibration of the concrete seawall and hydraulic fill behind it), rather than install temporary shoring and then install the wall, which will increase the amount of vibration and perhaps increase the probability of seawall failure.

**Special Condition 2** prohibits any future seaward extension of the development (beyond the approved steel sheet-pile seawalls) into coastal waters to avoid future fill of coastal waters. The applicant shall provide evidence that the proposed project does not include any construction barriers that would preclude the requirement for no future seaward extension of the shoreline protective device. This can be demonstrated through identification of the construction steps necessary for the future construction of a shoreline protective device (i.e., new seawall) that is in the same footprint, or inland of, the currently approved development; and submittal of plans that identify all structures that will need to be removed and/or modified in order to ensure that there will be no future seaward extension of the shoreline protection.

### **Sensitive Species Impacts – 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 Wildlife (DFW). For instance, eelgrass beds provide areas for fish egg laying, juvenile fish rearing, and waterfowl foraging. Sensitive species, such as the California least tern, a federally listed endangered species, utilize eelgrass beds as foraging grounds.

The results of an Eelgrass Survey conducted onsite on October 17, 2016, indicate that while patches of eelgrass occur throughout the survey area, no eelgrass was observed within the proposed project footprint ([Exhibit 3](#)). Invasive algae (*Caulerpa taxifolia*) was not observed at the site. **Special Condition 4** requires the applicant to conduct an additional eelgrass survey within 60 days of construction, during the period of eelgrass growth (March through October). 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, and a post-construction eelgrass survey.

### **Sensitive Species Impacts – Invasive Species**

A non-native and invasive aquatic plant species, *Caulerpa taxifolia* (herein *C. taxifolia*), has been discovered in parts of Southern California. *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 Sea. From an initial infestation of about one square yard it grew to cover about two 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 Sea, it grows on sand, mud and rock surfaces from the very shallow subtidal to about 250 feet 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 Sea has had serious negative economic and social consequences because of impacts to tourism, recreational diving and commercial fishing.

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

In June 2000, *C. taxifolia* was discovered in Aqua Hedionda Lagoon in San Diego County, and in August of that year an infestation was discovered in Huntington Harbor in Orange County. Genetic studies show that this is the same clone as that released in the Mediterranean. Other infestations may occur. 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 is available, it must be assumed that all shallow water marine habitats in California are at risk of infestation.

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 locate and completely eradicate all *C. taxifolia* infestations.

The project area was surveyed for eelgrass and *C. taxifolia* in October 2016 and no *C. taxifolia* was found. So far, *C. taxifolia* has not been found anywhere in the Alamitos Bay area. However, to ensure that *C. taxifolia* is not present in the project area before the proposed project commences, the applicant will conduct another survey. **Special Condition 5** requires the applicant to survey the project area again no earlier than ninety days nor later than thirty days prior to commencement or re-commencement of any development authorized under this coastal development permit. As conditioned, the Commission finds that the proposed project conforms with the marine resource provisions of the Coastal Act.

### **Construction Impacts to Water Quality**

The construction will occur over and in the water. Construction of any kind adjacent to or in coastal waters has the potential to impact marine environment. Alamitos Bay provides an opportunity for water oriented recreational activities and also serves as a home for marine habitat. Because of the coastal recreational activities and the sensitivity of the Alamitos Bay habitat, water quality issues are essential in review of this project.

The proposed project involves installation of new steel sheet-pile seawalls. No materials are proposed that would treat and coat any steel sheet piles. Were the applicant to include such materials, the project would need to be reviewed for water quality impacts because certain substances may have an adverse impact on water quality. In this case, no such coating is proposed.

Due to the project's location near coastal waters, it is necessary to ensure that construction activities will be carried out in a manner that will not adversely affect recreation, water quality or marine resources. The potential adverse impacts to water quality and marine resources include discharges of contaminated runoff into the canal, sedimentation and turbidity during construction of the new seawalls, and the use of heavy equipment (fuel and oil leaks).

In order to prevent adverse impacts to marine waters from construction activities, the Commission is imposing **Special Condition 6**. This special condition requires the applicant to utilize specific BMPs, including those described above, to ensure that water quality, biological productivity and marine resources are protected as required by Sections 30230 and 30231 of the Coastal Act. The required best management practices include provisions to prevent discharges into the water during construction. Only as conditioned will the proposed project ensure the protection of marine resources and water quality as required by Sections 30230 and 30231 of the Coastal Act.

**Special Condition 7** requires the applicant to provide a letter of permission or a copy of a permit issued by U.S. Army Corps of Engineers to the Executive Director prior to commencement of construction. . In addition, to minimize potential bird strikes with the proposed glass handrail, the Commission is imposing **Special Condition 8** which requires the applicant to submit revised plans showing the location, design, height, and materials of oceanfront deck railing systems, fences, screen walls, gates, windows and the like for the review and written approval of the Executive Director. Only as conditioned will the proposed project ensure that marine resources and water quality be protected as required by Sections 30230, 30231 and 30240 of the Coastal Act.

The proposed development has been designed to avoid any increase in the fill of coastal waters. The proposed development has been conditioned to minimize adverse effects on the marine environment by avoiding or mitigating impacts upon sensitive marine resources, such as eelgrass and to avoid contributing to the dispersal of the invasive aquatic algae, *Caulerpa taxifolia*. As conditioned, there are

no feasible less environmentally damaging alternatives available. Therefore, the Commission finds that the proposed development, as conditioned, conforms with Sections 30224, 30230, 30231, 30235 and 30240 of the Coastal Act.

**D. PUBLIC ACCESS AND RECREATION**

One of the basic goals stated in the Coastal Act and is to *maximize public access* to and along the coast. The public access and recreation policies of the Coastal Act require that maximum access and recreational opportunities shall be provided and that development shall not interfere with such access.

Section 30210 of the Coastal Act states:

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

Section 30211 of the Coastal Act states:

*Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30213 of the Coastal Act states:

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

Section 30221 of the Coastal Act states:

*Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

The Commission is vested with the authority to assure that it acts in a manner consistent with Section 30210 of the Coastal Act which requires the Commission to carry “out the requirement of Section 4 of Article X of the California Constitution” and provide for maximum access and recreational opportunities for all people.

Section 4 of Article X of the California Constitution provides the following:

*No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.*

This section merges the common law Public Trust Doctrine with the California Constitution. [See *Personal Watercraft Coalition v. Marin County Board of Supervisors* (2002) 100 Cal.App.4th 129, 144-145.] The Legislature, in furthering the goals of Article X Section 4 of the Constitution, enacted Section 30210 of the Coastal Act to ensure the public can always attain access to navigable waters for recreational purposes. As such, through this legislative mandate, the Commission is charged with the duty of ensuring that proposed development is consistent with Section 30210 of the Coastal Act, and by extension, the Public Trust Doctrine. Therefore, the Commission has the authority to impose requirements to protect public trust uses as a condition of approval for a development if such development would be inconsistent with Section 30210 of the Coastal Act without the imposition of such a condition.

Under the granted lands statutes, the Legislature granted the tide and submerged lands in Long Beach, including Alamitos Bay and its associated canals, to the City, dictating that such lands shall be used for public trust purposes.<sup>1</sup> The California State Lands Commission has found that uses of public trust lands must “accommodate, promote, foster or enhance statewide public’s need for essential commercial services or (the public’s) enjoyment of tidelands.”<sup>2</sup>

The public does currently have access to Alamitos Bay in front of this location. However, there is no access available on land through the private property to the water because the property is privately owned and there exists no public access easement. Public access from land to the water is available approximately 110 feet east and 360 feet north of the project site at the Geneva Walk street-ends. The project will result in an overall reduction in the amount of fill in the navigable waters, thereby providing a benefit for public trust uses of the surrounding water. In addition, **Special Condition 2** is necessary in order to ensure that the project is designed in a manner such that any future repair, maintenance or improvements to the seawall will not encroach further into navigable waters, thereby harming public trust uses of the waters. Therefore, since no new impacts will occur to public access in this location, the proposed project will not adversely impact public access to or along the shoreline. Thus, as conditioned, the proposed development conforms with the public access and recreation policies of the Coastal Act.

#### **E. SEA LEVEL RISE**

Warming oceans and polar and glacial melting over the last century has contributing to measurable increases in sea levels. Rising sea levels over the next fifty years are expected to range between 0.6 feet to 2.9 feet above current levels.<sup>3</sup> The highest tide currently observed in Long Beach (which resulted in minor flooding on Naples Island) is +7.5 feet MLLW (mean lower low water).

The proposed seawall has a top elevation of 9.5 feet above MLLW, which is 24 inches above the current highest water levels. Other Southern California cities have typically set minimum elevation requirements for new seawalls and bulkheads at +9.5 foot MLLW (City of Newport Beach) or +10 foot MLLW (Dana Point and Huntington Harbor).

If sea level rise is at the high end, water levels could be at or above the top of the proposed seawall elevation within the lifetime of the project. With some small waves, water could come over the seawall fairly regularly. The applicant asserts that the proposed design allows the height of the seawalls to be

<sup>1</sup> [http://www.slc.ca.gov/Granted\\_Lands/Los\\_Angeles.html](http://www.slc.ca.gov/Granted_Lands/Los_Angeles.html)

<sup>2</sup> [http://www.slc.ca.gov/Policy\\_Statements/Public\\_Trust/Public\\_Trust\\_Doctrine.pdf](http://www.slc.ca.gov/Policy_Statements/Public_Trust/Public_Trust_Doctrine.pdf)

<sup>3</sup> National Research Council (NRC), Committee on Sea Level Rise in California, Oregon, and Washington (2012) *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*, National Academies Press, Washington, D.C. pp.250; ISBN 978-309-24494-3

raised by adding to the pile cap. Therefore, the applicant's preliminary sea level rise adaptation plan is to add a higher cap to the seawall (and others) at a later date in the event of overtopping.

The height of the proposed seawall may not be sufficient for the full time that it will be in place. Since it is likely that the height of the proposed seawall will need to be increased in the coming decades to provide flood protection from rising sea level, **Special Condition 2** requires that any future maintenance or work to address changing sea level, increased flooding or other coastal hazards be undertaken on or inland of the proposed development and that there not be any seaward encroachment beyond the identified and recorded line of development.

#### **F. LOCAL COASTAL PROGRAM**

The proposed development would occur in coastal waters (water side of the seawalls) and on the private property located immediately inland of the seawalls. Although the western property line extends out into the bay, a coastal development permit is required from the Commission for the proposed development because it will most likely be located at least in part on submerged lands within the Commission's area of original jurisdiction pursuant to Section 30519 of the Coastal Act. The submerged area of Alamitos Bay is within the Commission's original jurisdiction. Pursuant to the certified City of Long Beach Local Coastal Program (LCP), the portion of the proposed project that is situated inland of the seawalls falls within the City's permitting jurisdiction, and the applicant must obtain any necessary local approvals from the City for development that is constructed in the City's jurisdiction.

#### **G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Section 13096 of the California Code of Regulations requires Commission approval of coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

As conditioned, there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative, will not have any significant impacts on the environment, and complies with the applicable requirements of the Coastal Act to conform to CEQA.

