

**CALIFORNIA COASTAL COMMISSION**

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# F10b

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Staff: M. Vaughn-LB  
Staff Report: 3/22/2018  
Hearing Date: 4/13/2018

## STAFF REPORT: REGULAR CALENDAR

**Application No.:** 5-17-0678

**Applicant:** Bassaly #1 LLC  
Magdy Bassaly

**Agent:** Karen Otis, Architect

**Location:** 16891 South Pacific Avenue, Sunset Beach  
Huntington Beach, Orange County

**Project Description:** Demolition of a two-story single-family residence, and construction of a 4,787 square foot, three-story, 35 feet high, single-family residence with an attached 420 square foot, two-car garage on a beachfront lot.

**Staff Recommendation:** Approval with conditions

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## SUMMARY OF STAFF RECOMMENDATION

The applicant is proposing the construction of a new beach-fronting single-family residence, and removal of all existing development that encroaches onto the adjacent public beach. No new encroachments are proposed to be placed onto the adjacent sandy beach. The major area of contention with the staff recommendation concerns the appropriate development setback from the seaward property line. The proposed setback is zero feet. Staff is recommending a minimum five-foot setback. An additional concern addressed in the staff report and through imposition of the special conditions is the potential impact to the proposed beachfront development from

erosion, flooding, and/or wave uprush during strong storm events and expected future sea level rise. The applicant is in agreement with eight of the nine special conditions. The **applicant objects to Special Condition No. 1** which imposes a minimum five-foot setback from the seaward property line.

In all, staff is recommending APPROVAL of the proposed project with nine (9) special conditions regarding: 1) project re-design and submittal of revised plans reflecting a minimum setback of five feet from the seaward property line; 2) compliance with the revised (per Special Condition 1) project plans including removal of all development seaward of the property line (as proposed by the applicant); 3) prohibition of future shoreline protective devices and removal of approved development if threatened, or if essential services to the site can no longer feasibly be maintained, or if located on public trust lands, or if inconsistent with the LCP; 4) submittal of a revised drainage plan modified to accommodate the required seaward setback pursuant to Special Condition 1, that shall otherwise conform with the submitted drainage plan, including site drainage will be directed to sediment basins located in each side yard; 5) appropriate storage of construction materials, mechanized equipment and removal of construction debris; 6) future development; 7) protection of any public rights that exist or may exist at the subject site; 8) assumption of risk; and 9) recordation of a deed restriction against the property referencing all of the special conditions contained in this staff report.

The project site is in an uncertified area of the City of Huntington Beach. Therefore, the Commission is the permit-issuing entity for the proposed project and the standard of review is Chapter 3 of the Coastal Act.

The motion and resolution to carry out the staff recommendation is found on page 4.

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### EXHIBITS

- Exhibit 1 – Vicinity Map and Aerial Photo
- Exhibit 2 – COSMOS Map
- Exhibit 3 – Project Plans

## I. MOTION AND RESOLUTION

### Motion:

*I move that the Commission **approve** the Coastal Development Permit Application 5-17-0678 subject to the conditions set forth in the staff recommendation.*

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 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 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 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. **Submittal of Revised Final Plans.**

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, two full-size sets of the following revised final plans, modified as required below:

1. The rear (seaward side) setback of the structure shall not be less than five feet from the property line. This five-foot setback shall apply to all habitable and non-habitable areas, all floor levels, and the foundation of the structure except for ground level patios or decks.

B. All revised plans shall be prepared and certified by a licensed professional or professionals as applicable (e.g., architect, surveyor, geotechnical engineer), based on current information and professional standards, and shall be certified to ensure that they are consistent with the Commission's approval and with the recommendations of any required technical reports.

C. The permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

2. **Permit Compliance.** Coastal Development Permit 5-17-0678 authorizes the demolition of a single-family dwelling and the construction of a 4,787 square foot (square footage will be reduced pursuant to Special Condition 1, above), three-story, 35 feet high, single-family residence with an attached 420 square foot, two-car garage. The applicant shall remove all development that encroaches beyond the property line onto public property, including a deck, steps and wood fence as shown on page 7 of Exhibit 3 of the staff report dated March 22, 2018. No new development is permitted beyond the seaward property line. All development must occur in strict compliance with the proposal as set forth in the application, subject the special conditions.

The permittee shall undertake development in accordance with the final approved plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. Any change to the approved final plans shall require an amendment to Permit No. 5-17-0678 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

3. **No Future Shoreline Protective Device.** By acceptance of this permit, the applicant agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall ever be constructed to protect the development approved

pursuant to Coastal Development Permit No. 5-17-0678 including, but not limited to, the residence, garage, foundations, and any future improvements, in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, sea level rise, or other natural hazards in the future. By acceptance of this permit, the applicant acknowledges that the project is new construction for which there is no right to construct shoreline protective devices, and hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under applicable law.

By acceptance of this permit, the applicant further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit, including the residence, garage, foundations, and hardscape if: (a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protective device to prevent a-d above.

In the event that portions of the development fall to the beach before they are removed, the landowner(s) shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit. Prior to removal, the permittee shall submit two copies of a Removal Plan to the Executive Director for review and written approval. The Removal Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, including the Pacific Ocean.

4. **Drainage Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, two full-size sets of revised drainage plans, modified as required pursuant to Special Condition 1, above. The revised drainage plan shall otherwise include the site drainage details depicted in the site plan dated 12/15/2017 indicating site drainage will be directed to sediment basins located in each side yard. Any proposed changes to the approved final 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.
5. **Storage of Construction Materials, Mechanized Equipment and Removal of Construction Debris.** The permittee shall comply with the following construction-related requirements:
  - (a) No demolition or construction materials, debris, or waste shall be placed or stored on the beach or anywhere it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.

- (b) No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.
- (c) Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.
- (d) 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.
- (e) All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
- (f) The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
- (g) 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.
- (h) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- (i) 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.
- (j) The discharge of any hazardous materials into any receiving waters shall be prohibited.
- (k) 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.
- (l) Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) 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.
- (m) All BMPs shall be maintained in a functional condition throughout the duration of construction activity.

**6. Future Development.** This permit is only for the development described in Coastal Development Permit No. 5-17-0678. Pursuant to Title 14 California Code of Regulations Section 13250(b)(1) through (6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to the development governed by Coastal Development Permit No. 5-17-0678. Accordingly, any future improvements to the single-family residence authorized by this permit, including but not limited to repair and maintenance identified as requiring a permit in Public Resources Section 30610(d) and Title 14 California Code of Regulations Sections 13252(a)-(b), shall require an

amendment to Permit No. 5-17-0678 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

- 7. Public Rights.** The approval of this permit shall not constitute a waiver of any public rights that exist or may exist on the property now or in the future. The permittee shall not use this permit as evidence of a waiver of any public rights that may exist on the property now or in the future.
- 8. Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from erosion, flooding, wave uprush, and sea level rise; (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; and (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.
- 9. Deed Restriction.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the landowner(s) have executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.



## IV. FINDINGS AND DECLARATIONS

### A. PROJECT DESCRIPTION

The applicant is proposing to demolish a two-story single-family residence and construct a 4,787 square foot, three-story, 35 feet high (as measured from the centerline of the frontage road), single-family residence with an attached 420 square foot, two-car garage on shallow mat foundation. The project site is a rectangular, approximately 2,700 square foot, ocean-facing, beachfront lot. Only minimal grading for site preparation is proposed. All beach encroachments, including a deck, steps, and wood fence will be removed, the area cleaned, and left in a natural state. All of the proposed new development is located within private property lines on the subject lot. No development beyond the private property lines is proposed under this coastal development permit. Project plans are included as **Exhibit 3**. The City issued an Approval in Concept for the proposed project (City of Huntington Beach Initial Plan and Zoning Review No. 2017-010 (Bassaly), 7/25/17).

The subject site is located at 16891 South Pacific Avenue in the Sunset Beach community of the City of Huntington Beach, Orange County (**Exhibit 1, Vicinity Map**). The site is on a low-lying, relatively narrow strip of land between two water bodies – with the ocean to the southwest side and Huntington Harbor, to the northeast. The project is located within an existing urban residential area, between 10<sup>th</sup> and 11<sup>th</sup> Streets. The subject lot is located between the first public road (South Pacific Avenue) and the sea. The site fronts the wide sandy public beach (approximately 350 feet wide) known as Sunset Beach located between the subject property and the Pacific Ocean.

Sunset Beach is located in an area that was formerly unincorporated Orange County. Under the County's jurisdiction, Sunset Beach was subject to a certified Local Coastal Program (LCP). However, in August 2011, Sunset Beach was annexed by the City of Huntington Beach, resulting in the lapse of certification of the County's LCP for Sunset Beach. The Sunset Beach area has not yet been incorporated into the City of Huntington Beach LCP. Therefore, the Commission is the permit-issuing entity for the proposed project and the Chapter 3 policies of the Coastal Act are the standard of review. The County's previously certified Sunset Beach LCP may be used as guidance; however, it should be noted that the previously certified LCP did not adequately address a number of issues of current concern including sea level rise concerns, which are likely to be a significant issue in the new LCP, given the high degree of sea level rise vulnerability in the area.

The City has adopted equivalent land use and zoning designations for the site as those set forth in the former Orange County LCP for Sunset Beach. However, the Commission has not yet certified land use designations or zoning for the Sunset Beach area since it was annexed into the City. Nevertheless, it is worth noting that the proposed project (a single-family residence) is consistent with many of the development standards that would have been applicable to the proposed project under the old Sunset Beach LCP. The old LCP designated the site *Sunset Beach Residential – High Density*. The proposed single-family residence is consistent with this designation. The project meets the old LCP's height restriction of 35 feet for the *Sunset Beach Residential* zone, which is also the City's current height limit. In addition, the design of the

proposed single-family residence project is consistent with existing surrounding residential development on South Pacific Avenue in Sunset Beach.

Previously, the County had been issuing Encroachment Permits for encroachments (i.e., decks) onto the public beach under a certified LCP regulation which states: “*Permanent above-ground structures on the beach and sand areas shall be prohibited, except for: a) Lifeguard Towers, b) Other facilities necessary for public safety, c) Temporary uses and structures accessory to residential development on contiguous Sunset Beach Residential properties subject to a Coastal Development Permit and a Public Property Encroachment Permit.*” No records have been discovered to show whether the encroachments that exist on the beach in front of the project site were permitted by a County-issued coastal development permit. In any case, the applicant is proposing to remove all beach encroachments, including a deck, steps and wood fence located seaward of the subject site. No new encroachments are proposed or permitted.

## **B. Hazards**

Coastal Act Section 30253 states, in pertinent 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.*

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 structure 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 fishkills should be phased out or upgraded where feasible.*

### **1. Coastal Hazards**

Due to its location between the oceanfront and the harbor, an inherently dynamic and potentially hazardous area, the project site must be examined for the potential for erosion, flooding, wave attack and wave runoff hazards, including consideration of potential impacts due to severe storm events. Moreover, these hazards may be exacerbated by expected future sea level rise, which must also be considered. To address questions raised by these issues, the applicant’s coastal engineers provided a Coastal Hazard Study (TGR Geotechnical, 10/7/2017). In addition, the coastal engineering consultant provided a written response to staff questions regarding the project (Response to California Coastal Commission Review Comments, TGR Geotechnical,

dated 11/29/17), as well as follow-up responses (Coastal Hazard & Wave Runup Study Review Response, Geosoils, Inc. dated 12/27/17; Memorandum, Geosoils, Inc. 2/13/18) (collectively referred to as Study). In this geographic area, the main concerns raised by beach fronting development are impacts to public access and recreation, and whether hazardous conditions might eventually lead to a request to build a shoreline protection device to protect the proposed development. Additional concerns when considering new development in this area include the possibility of flooding from the harbor side rather than just beach flooding and erosion. Such flooding may actually occur earlier than beach flooding and erosion, and could impact roadways and other infrastructure, thus limiting access to the residence and damaging necessary public services.

The Coastal Act discourages shoreline protection devices because they generally cause significant impacts on coastal resources and can constrain the ability of the shoreline to respond to dynamic coastal processes. This is expected to be exacerbated with future sea level rise. Adverse impacts associated with shoreline protection devices include: as a sandy beach erodes, the shoreline will generally migrate landward, toward the structure, resulting in reduction and/or loss of public beach area and in some cases, public trust lands, while the landward extent of the beach does not increase; oftentimes the protective structure is placed on public land rather than on the private property it is intended to protect, resulting in physical loss of beach area formerly available to the general public; the shoreline protection device may actually increase the rate of loss of beach due to wave deflection and/or scouring (this is site-specific and varies depending on local factors); shoreline protection devices cause visual impacts and can detract from a natural beach experience, adversely impacting public views; and, shoreline protection devices can lead to loss of ecosystem services, loss of habitat, and reduction in biodiversity compared to natural beaches.<sup>1</sup> All of these impacts are likely to occur as a result of a shoreline protection device being constructed at this beach.

Shoreline protective devices, by their very nature, tend to conflict with various LCP and Chapter 3 policies because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

Because shoreline protection devices, such as seawalls, revetments, and groins, can create adverse impacts on coastal processes, Coastal Act Section 30253 specifically prohibits development that could “...create [or] 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.” However, Section 30235 of the Coastal Act recognizes that “**existing**” development may be protected by shoreline protective devices subject to certain conditions.

Notwithstanding Section 30235’s limited allowance for protection of pre-Coastal Act or coastal-dependent use development, in order to avoid the adverse impacts of shoreline protection devices (described above), it is important to assure that new development (such as demolition of an existing structure and construction of a new structure, as is being proposed here) not be permitted

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<sup>1</sup> Summarized from <http://www.beachapedia.org/Seawalls>

shoreline protection to the extent such shoreline protection would be inconsistent with Coastal Act Chapter 3 coastal resource policies. If it is known that the development may need shoreline protection in the future, it would be unlikely that such development could be found to be consistent with Section 30253 of the Coastal Act which, as stated above, requires that new development not *create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area*, given the well-known coastal resource impacts that shoreline protection typically causes. This limitation is particularly important when considering new development, such as in this case, because, in contrast, Section 30235 of the Coastal Act, provides, among other things, that structures such as shoreline protective devices be allowed (subject to certain conditions) when required to protect *existing* (but not new) structures in danger from erosion.

### **Public Costs/Loss of Public Beach**

The Sunset Beach community, where the subject site is located, has historically been subject to flooding and damage resulting from wave action during storm conditions. Past occurrences have resulted in public costs for public service (including the USACE led periodic beach replenishment program that is on-going for more than 50 years; annual construction of a seasonal berm across the beach, originally constructed by the County, and now by the City of Huntington Beach) in the millions of dollars. Specifically, the El Nino storms of 1982/83 caused significant damage in both Sunset Beach and neighboring Surfside. Indeed, it was the damage resulting from this storm that resulted in annual construction of the seasonal berm across Sunset Beach. Flooding of areas along Pacific Coast Highway from Huntington Harbour occurs in Sunset Beach now with extreme high tides, even without storm activity. Moreover, USGS COSMOS, the best available regional sea level rise modeling tool, shows that the area around the site may be significantly impacted by future sea level rise (see **Exhibit 2**) and related flooding. Public costs are incurred with each incident, including for pumping flooded areas, clearing blocked storm drains, and clean up.

In addition, from a public perspective, a major concern with shoreline protection is the threat of lost public beach area. As the beach erodes the shoreline retreats landward, toward developed areas. Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the boundary between public and private lands. The impact of a shoreline protection device on public access is most evident on a beach where wave run-up and the mean high tide line are frequently observed in an extreme landward position during the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of shoreline protection such as rock revetments and seawalls to protect private property would prevent any current or future migration of the shoreline landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark narrows or disappears, the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline becomes inundated. The ultimate result of a fixed tideline boundary (which would otherwise normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime) is a reduction or elimination of the area of sandy beach available for public access and recreation.

Interference by shoreline protection devices can result in a number of adverse effects on the dynamic shoreline system and the public's ability to access the beach. First, changes in the shoreline profile, particularly changes in the slope of the profile which results from a reduced beach berm width, alter the usable beach area. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This narrows the beach area available for public access. The second effect on access is through a progressive loss of sand as shore material is not available to nourish the nearshore sand bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. This affects public access again through a loss of beach area. Third, shoreline protection devices such as revetments, seawalls, and bulkheads cumulatively affect shoreline sand supply and public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they reach a public beach. In addition, if a seasonal eroded beach condition occurs with greater frequency due to the placement of a shoreline protection device on the subject site, then the beach would also accrete at a slower rate, if at all. Fourth, if not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate wave energy.

Moreover, even when shoreline protection is not present, the placement of structures along an eroding shoreline can impact beach areas and public trust lands. As the shoreline migrates inland, structures may become located on beach areas and/or public trust lands, occupying land that would otherwise be available for public access, ecosystem services and other coastal resource benefits.

Private development on public beaches creates conflicts with the public access and recreation policies of the Coastal Act. Thus, the Commission's action on this project must consider the effects on public access under current conditions, and under future conditions, when it is likely that the shoreline in front of the subject site will erode and move inland, up to or past the subject site.

### **Sea Level Rise**

Sea level has been rising for many years. Several different approaches have been used to analyze the global tide gauge records in order to assess the spatial and temporal variations, and these efforts have yielded sea level rise rates ranging from about 1.2 mm/year to 1.7 mm/year (about 0.5 to 0.7 inches/decade) for the 20th century, but since 1990 the rate has more than doubled, and the rate of sea level rise continues to accelerate. Since the advent of satellite altimetry in 1993, measurements of absolute sea level from space indicate an average global rate of sea level rise of 3.4 mm/year or 1.3 inches/decade – more than twice the average rate over the 20th century and greater than any time over the past one thousand years.<sup>2</sup> Recent observations of sea level along parts of the California coast have shown some anomalous trends; however, there is unequivocal evidence that the climate is warming, and such warming is expected to cause sea levels to rise at an accelerating rate throughout this century.

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<sup>2</sup> <http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf>

The State of California has undertaken significant research to understand how much sea level rise to expect over this century and to anticipate the likely impacts of such sea level rise. In 2013, the Ocean Protection Council adopted the National Research Council (NRC) report, “Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past Present and Future”, as best available science for the State of California, and recommended in its 2013 State Sea-Level Rise Guidance that state agencies and others use these projections in their planning processes (the Coastal Commission also adopted the NRC report as best available science its 2015 Sea Level Rise Policy Guidance). This report estimates that sea levels could rise between 1.5 and 5.5 feet by the year 2100<sup>3</sup> for areas south of Cape Mendocino. This projection is given in a range largely because researchers cannot know exactly how much greenhouse gases we will continue to emit over the coming decades – large-scale curtailment of greenhouse gas emissions would keep sea level rise towards the lower end of the projections, while business as usual emissions scenarios would result in the higher end of the projections. Because the world has continued along the “business as usual” scenario (and data suggests temperatures and sea level rise are tracking along the higher projections), OPC and the Natural Resources Agency have continued to recommend that we avoid relying on the lower projections in planning and decision-making processes.

The NRC report also noted that there are additional sources of uncertainty that could result in rates of sea level rise that are outside the projected ranges. One major source of uncertainty is related to the dynamics of ice sheet loss, and this topic has continued to be extensively researched since the NRC report came out. This more recent research informed the April 2017 “Rising Seas in California: An Update on Sea-Level Rise Science” report<sup>4</sup>, which is being incorporated into OPC’s 2018 update to the State Sea-Level Rise Guidance. The updated projections in the Rising Seas report suggest sea levels could rise between 1.6 and 6.9 feet by 2100, depending on greenhouse gas emissions. The updated science report also includes an extreme scenario (termed the “H++” scenario) of 10.2 feet of sea level rise by 2100 based on recent modelling efforts that look at possible sea level rise associated with rapid ice sheet loss.

As our understanding of sea level rise continues to evolve, it is possible that sea level rise projections will continue to change as well (as evidenced by the recent updates to best available science). While uncertainty will remain with regard to exactly how much sea levels will rise and when, the direction of sea level change is clear and it is critical to continue to assess sea level rise vulnerabilities when planning for future development. Importantly, maintaining a precautionary approach that considers high or even extreme sea level rise rates and includes planning for future adaptation will help ensure that decisions are made that will result in a resilient coastal California.

On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore, which will result in increased flooding, erosion, and storm impacts to coastal areas. On a relatively flat beach, with a slope of 40:1, a simple geometric model of the coast indicated that every centimeter of sea level rise will result in a 40

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<sup>3</sup> National Research Council (NRC). 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. Report by the Committee on Sea Level Rise in California, Oregon, and Washington. National Academies Press, Washington, DC. 250 pp. <http://www.nap.edu/catalog/13389/sea-level-rise-for-the-coasts-of-california-oregonand-washington>.

<sup>4</sup> Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group). Rising Seas in California: An Update on Sea-Level Rise Science. California Ocean Science Trust, April 2017.

cm landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a seawall, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than is inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently. Accompanying this rise in sea level will be an increase in wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to increased wave action, and those areas that are already exposed to wave action will be exposed more frequently, with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

### **Public Trust Resources**

Coastal hazards and shoreline protective devices also raise public trust concerns. The common law public trust doctrine protects the public's right to access tidelands, submerged lands, and navigable waters, which the State holds in trust for the public's use and enjoyment. This doctrine is enshrined in California's Constitution, which provides in Article X, section 4, that no individual may "exclude the right of way" to any "frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State." Cal. Const. Art. X, Sec. 4. The Constitution further directs the Legislature to enact laws that give the most "liberal construction" to Article X, section 4, so that access to navigable waters of the State "shall be always attainable for the people."

As discussed above, future sea level rise will cause the landward migration of the intersection of the ocean with the shore and, thus, the tidelands and submerged lands that are public trust resources. To the extent that shoreline protective devices contribute to erosion and blockage of the natural inland migration of the beach and shoreline, and thus result in the loss of natural beaches that allow the public to access tidelands and submerged lands, their construction is also inconsistent with the State's obligation to protect the public's right to access these areas. Knowing, as we do, that our understanding of how fast and how severe sea level rise will occur, and the precise impacts on particular coastal areas, is an evolving area of scientific inquiry, the Coastal Commission must act conservatively to manage public trust resources in a way that will protect them for future generations. For this additional reason, the Coastal Commission is unlikely to approve proposals for new development that, either now or sometime in the future, require shoreline protective devices, as their construction threatens public trust resources managed by the Coastal Commission.

Moreover, private residential uses are not public trust uses and the existence of private residential uses, such as the proposed project, on future public trust lands would conflict with the public's right to use and enjoy such lands.

### **Site Specific Evaluation**

In order to evaluate whether the proposed development would be consistent with Coastal Act Section 30253, the applicant has submitted the Coastal Hazard Study (TGR Geotechnical, 10/7/2017). In addition, the project coastal engineer provided a written response to staff

questions regarding the project (Response to California Coastal Commission Review Comments, TGR Geotechnical, dated 11/29/17), as well as follow-up responses (Coastal Hazard & Wave runoff Study Review Response, GeoSoils, Inc. dated 12/27/17; GeoSoils Memorandum, 2/13/18) (collectively referred to as Study). The Study concludes that coastal hazards are not expected to impact the proposed development over the next 75 years, including hazards from erosion, flooding, wave attack, or wave runoff, even when considering impacts due to severe storm events and taking into consideration expected future sea level rise. Moreover, the coastal engineering consultant concludes that a shoreline protection device is not expected to be necessary over the 75-year life of the proposed development.

Regarding erosion in the project area generally and at the project site specifically, the TGR Coastal Hazard Study (10/7/17) states:

*“If we assume a very high, long term, erosion rate (not a seasonal rate) of 1.5 ft./yr, the shoreline may narrow about 112 feet over the 75 year life of the structure. This is still over 240 feet (presently [the beach width is] over 350 feet) from the project and [provides] sufficient beach width to prevent wave attack from reaching the site. Because of the beach width and the stabilization by beach nourishment, which will continue in the future, the site is reasonably safe from erosion hazards over the project 75 year life.”*

Because the above language appeared to imply that the site’s safety from future erosion relies on the on-going U.S. Army Corps of Engineer led beach nourishment project<sup>5</sup>, Commission staff requested additional information as follows:

*“The Coastal Hazards Analysis’s conclusions and recommendations rely on<sup>6</sup> the on-going, periodic U.S. Army Corps of Engineers-led beach nourishment/erosion control efforts (Orange County Beach Erosion Control Project (USACOE, 1995)). However, it does not appear that the Coastal Hazards Analysis considered the hazard/risk factors in the event the USACOE nourishment efforts were to be reduced or cease. Although it appears at this time that there are no plans to change the current nourishment program, it cannot be known whether the beach nourishment program, upon which the hazard/risk conclusions are based, will continue for the expected life of the project (75 years).*

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<sup>5</sup> The Sunset Beach area and the beach fronting Surfside Colony to the north (located in the City of Seal Beach) have been subject to severe erosion as a result of the wave reflection off of the Anaheim Bay Harbor east jetty, particularly during severe storm events. The reflection effect is strongest nearer the jetty. Sunset Beach and Surfside are part of a federally authorized Orange County Beach Erosion Control Project. The replenishment program places sand on the Surfside beach. Once placed, natural littoral transport carries the sand downcoast as far as the Newport Pier on the Balboa Peninsula in the City of Newport Beach. The US Army Corps of Engineers has maintained the beach in this area through beach sand nourishment projects as part of a federally authorized project since the early 1960s. Other beach nourishment activities have occurred since 1935. This replenishment program is officially known as the San Gabriel River to Newport Bay Beach Erosion Control Project (‘Project’) and is undertaken by the U.S. Army Corps of Engineers, in conjunction with local government partners, to periodically add sand to the system. The project was authorized by the U.S. Congress in 1962 (Public Law 87-874 and House Document No. 602, 87<sup>th</sup> Congress, Second Session). The project is defined by Congress as a ‘Continuing Authority Project’ meaning that it can occur in multiple phases without reauthorization, i.e. non sunset clause, but does require individual phase funding approval.

<sup>6</sup> For example, The Coastal Hazard Study (10/7/17) states, on page 2: “Because the beach in front of the site is maintained at a width of approximately 350 feet, it is highly improbable that the shoreline will erode back to the site even with future sea level rise (SLR).” And, on page 3, further states: “The beach in front of the site has not experienced significant long-term erosion since the nourishment activity, and has been maintained wider than 350 feet.” and “Because of the beach width and the stabilization by beach nourishment, which will continue in the future, the site is reasonably safe from erosion over the project 75 year life.” In addition, on page 4: “Because the site is located far from the surf zone and a beach width of at least 400 feet is always maintained, the site will not be subject to direct attack from breaking waves.” And on page 5, the Coastal Hazards Analysis: “Because a wide beach is maintained by the Federal Government it is highly unlikely that the beach will become narrow enough for runoff to reach the site.” And on page 6 under *Conclusions and Recommendations*, the Hazards Assessment states: “In conclusion, coastal hazards will likely not impact the proposed development property over the next 75 years.”



*Therefore, it is necessary that the Coastal Hazards Analysis consider at least one scenario of long-term erosion that assumes that one or more USACOE replenishment cycles are missed, such that there is a minimum 15 year period between nourishment projects. This scenario must be applied to the conditions described in the CCC Sea Level Rise Policy guidance document (which is referenced in the Coastal Hazards Analysis submitted 10/10/17). This scenario must be considered both with expected future sea level rise and without, including consideration of the beach profile that would exist, over time, in the absence of the beach nourishment (this assessment must consider seasonally eroded beach profiles). That is, the evaluation of coastal hazards at the site must consider both the loss of sand at the site without the USAOCE nourishment as well as the increase in sea level.”*

To the above, the following response from the project coastal engineer was received:

*“Figure 1[of the 12/27/17 Geosoils response]<sup>7</sup> shows that under 125 cm (4.1 feet) of SLR the shoreline is still about 60 feet from the site. This assumes that NO nourishment takes place, which is very unlikely”*

Additionally, the Study (GeoSoils Memorandum, 2/13/18) finds:

*“It is the width of the beach that primarily protects the site from coastal hazards. If the nourishment is stopped, and a very high erosion rate of 1.5 ft/yr is assumed to occur without nourishment, then the beach would retreat 112 feet in 75 years. With no nourishment and the beach retreating 112 feet in 75 years, the site is still over 200 feet from the mean high tide line. Coastal engineering standard of practice recognizes 200 feet as an adequate beach width to protect property.”*

Finally, a 2/12/18 email correspondence between Commission staff and the coastal engineer states: *“[The] project is safe from shoreline erosion without the nourishment or berm construction over the next 75 years.”*

The project coastal engineer concludes:

*“In conclusion, coastal hazards will likely not impact the proposed development property over the next 75 years. The proposed development will neither create nor contribute to erosion, geologic instability, or destruction of the site or adjacent area. There are no recommendations necessary for wave runoff protection. The proposed project minimizes risks from flooding. However, the property is relatively low-lying and proper site drainage and drainage control will be necessary.”*

Based upon all of the information provided by the applicant’s coastal engineer in the coastal hazard Study, the applicant asserts that the proposed development is not expected to be threatened by erosion, flooding, or wave attack/wave runoff over the 75-year life of the structure, even during severe storms and when expected future sea level rise is considered. Based upon the evidence contained in the Study, no future shoreline protection device is expected to be needed

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<sup>7</sup> Figure 1 of the GeoSoils, Inc. 12/27/17 report is the CoSMoS shoreline location with 4.1 feet of SLR.

over the 75-year life of the proposed development. However, ocean fronting properties are inherently dynamic, and future conditions cannot be known with certainty. Further, COSMOS, the best available regional sea level rise modeling tool, shows that the area around the site may be significantly impacted by future sea level rise (see Exhibit 2).

### **No Future Shoreline Protection**

Were it not for the project coastal engineer's detailed explanation that no shoreline protection device is expected to be needed over the life (75 years) of the proposed residential development, the project likely could not be found consistent with the public access, recreation, and hazards policies of the Coastal Act. If the proposed project included a shoreline protective device, it could not be found consistent with these Coastal Act policies. Because the site specific hazards analysis provided by the applicant's coastal engineering consultant maintains that, even with expected future sea level rise, the proposed development is not expected to be threatened by coastal hazards and so is not expected to need shoreline protection over the life of the development, the project can be found to conform with the hazards policies of the Coastal Act. In addition, based on the conclusions of the hazards analysis and with imposition of the special conditions described later in this report, the project can be found to conform with the public access and recreation policies of the Coastal Act.

Still, development adjacent to the ocean is inherently hazardous and predictions into the future cannot be known with certainty. Future certainty is further complicated by the unknown extent of future sea level rise. Understanding the risks and uncertainty, the Coastal Commission has a duty to manage coastal and public trust resources conservatively and to ensure that such risks are borne by the applicant proposing private development for their benefit, rather than the public. In the event that future conditions are not consistent with the current expectations expressed in the hazards analysis, or the project engineer's analysis is incorrect, the applicant and future owners must be made aware that loss of public beach, due to migration of the mean high tide line, may threaten the development; and that construction of a device to protect the development from shoreline hazards likely could not be found to be consistent with the public access, public recreation, and hazards policies of the Coastal Act, or the California Constitution and the public trust doctrine.

If, in the future, it turns out that the development is not structurally stable due to increased future wave action, sea level rise, or storm and tidal events, **Special Condition 3** is required to acknowledge that, as new development, the applicant has no right to a shoreline protective device for the project and, in fact, no future shoreline protective device will be constructed on site to protect the proposed development. Instead, the landowner must remove the development if (a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protective device to prevent a-d above. **Special Condition 3** requires that if any of the proposed development becomes threatened by coastal hazards in the future, even though information presented by the applicant's engineer today finds that that is not expected, then the threatened development must be removed rather than protected

in place. This condition recognizes that the applicant's consultant has found that the site is expected to be safe, while also recognizing that predictions of the future cannot be made with certainty, thereby ensuring that the risks of property damage or loss arising from sea level rise or other changed circumstances are borne by the applicant enjoying the benefits of new development, and not the public.

Additionally, **Special Condition 7** clarifies that the Commission's approval of this permit does not constitute a waiver of any public rights that may exist on the property and prohibits the applicant from using the permit as evidence of a waiver of any public rights that may exist on the property now or in the future. **Special Condition 7** also clarifies that the permit does not authorize the development to physically interfere with any public access rights that may exist at any future date.

The Commission finds that due to the possibility of storm waves, surges, flooding and erosion the applicant shall assume these risks as a condition of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by **Special Condition 8**, will show that the applicant is aware of and understands the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the subject development, and will effectuate the necessary assumption of those risks by the applicant.

In addition, the Commission imposes **Special Condition 9**, which requires the applicant to record a deed restriction on the property, acknowledging the risks inherent in undertaking development in this dynamic area and acknowledging that the degree of future risk cannot be known with certainty today. Additionally, **Special Condition 9** imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser and any future owners of the site with recorded notice that the restrictions are imposed on the subject property. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the hazards and shoreline development policies of the Coastal Act.

## 2. Geotechnical

A *Geotechnical Engineering Investigation* was prepared for the proposed development by ZS Engineering, dated 5/20/17. The applicant is proposing to support the proposed residence on shallow mat foundation. Shallow mat foundations are recommended by the project geotechnical consultant, as reflected below. The site is subject to liquefaction potential and the presence of shallow groundwater. With respect to these potential issues at the subject site and the proposed shallow mat foundations, the Report (5/20/17) states:

*“Due to shallow groundwater, the general area of this site is mapped within liquefaction hazard zone as delineated in the state's seismic hazard zones map (CGS, 1999). Groundwater was encountered at depths about 10 to 11 feet below the existing grade during this investigation. Historic shallow groundwater within the general area of the subject lot is documented on the order of 3 feet.*

*Our evaluations for liquefaction potential indicated a potentially liquefiable soil layer, about 3.5 feet thick, at a depth above 38 feet below the existing grade. Surface manifestation (such as sand boiling, ground fissure, etc.) causing loss of bearing capacity of the foundation subgrade soils is not likely to happen in the event of a major earthquake due to the following factors: a thick nonliquefiable zone below the existing grade; ground improvements involving a foundation subgrade made of soil-cement mix; depth and thicknesses of the a potentially liquefiable layer as discussed above. Maximum dynamic settlement at this site is estimated 0.66 inch.*

*In order to diminish the potential of differential settlement, proposed new building foundations are recommended to be a minimum 24 inches thick concrete mat bearing on a compacted subgrade made of soil-cement mix, minimum 18 inches thick below the foundation bottoms. Structural integrity of the proposed new three-story residential buildings will remain intact during a major seismic event provided the geotechnical parameters and grading recommendations in this report are properly implemented in the design and during construction of this project. We recommend that all utility lines within the property limits be equipped with flexible joints that are capable of handling the anticipated seismic settlement.”*

### **3. Hazards Conclusion**

Based upon the technical information provided by both the project geotechnical consultant and the project coastal engineer, the proposed development, as conditioned, can be found to be consistent with Section 30253 of the Coastal Act which requires that risks to life and property be minimized, that stability and structural integrity are assured, and that proposed development neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. Approval of the project also is consistent with the Commission’s obligation to manage and protect public trust resources.

### **C. PUBLIC ACCESS**

Coastal Act Section 30210 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 30214 of the Coastal Act states, in relevant part (emphasis added):

*(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

- (3) *The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
- (4) *The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*

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.*

### **Seaward Development Setback**

The project site is a beach fronting lot located within a row of beach fronting, residentially developed lots along South Pacific Avenue. Vertical access from South Pacific Avenue to the public beach is available approximately 90 feet southeast (downcoast) of the subject site at the end of 10<sup>th</sup> Street and approximately 60 feet northwest (upcoast) of the site, at the end of 11<sup>th</sup> Street. The proposed residence would be constructed at the seaward property line, a zero-foot setback, on all three levels. No at-grade patio or deck is proposed. The proposed walls of glass (windows) across the seaward face of the proposed three-story residence will be located immediately adjacent to the public beach.

As reflected in the Sections cited above, the Coastal Act requires that public access to the shoreline be maximized. Coastal Act Section 30221 requires that oceanfront land suitable for recreational use be protected for recreational use, unless demand for such a use is or likely will be provided elsewhere in the area. With expected future sea level rise and resulting coastal erosion, it is likely that future demand for public recreational activities, such as use of the sandy beach, will need to be accommodated on smaller, more narrow beaches. In addition, the population is expected to continue to increase. And so, the area of sandy beach will decrease while the demand for remaining sandy beach areas will only increase.

Section 30214 of the Coastal Act recognizes the inherent conflicts likely to arise when private property abuts public use areas but prioritizes public access needs. Which means that providing the private property's need for privacy must be accommodated on the private property itself, not by burdening the already limited public beach area available for public use. When such conflicts are not addressed at the planning/permitting stage of development, and adjacent residential development is allowed too close to public beach areas (as is proposed in this zero setback case), the resulting lack of privacy could lead to future demands by residents to curtail public use of the public area in order to afford privacy. Sunset Beach is a public beach, and new development should not be allowed to be constructed in a manner that could foreclose the ability of the homeowner to maintain privacy. Although the applicant may not argue for this now, in the future or under future owners, this issue is likely to arise, especially as the beach narrows as it is expected to do, increasing demands on the public beach and concentrating the public area closer to the public/private border.

In addition to raising privacy issues, a zero-foot beachfront setback makes it impossible for the owner of the private residence to conduct normal maintenance activities typically necessary to maintain a residence without encroaching onto the public beach. For example, as proposed, the owner of the proposed residence would not be able to wash the windows or paint the residence on its seaward side, or other typical maintenance activities, without performing such work from the public sandy beach. The proposed residence includes large picture windows/sliding glass doors across entire or near entire expanse of the seaward side of the residence. These simple, regularly required maintenance activities would likely require construction scaffolding on the public beach in order to access the proposed three-story, zero setback structure. Furthermore, to exit the proposed home on its seaward side, a resident would step directly onto public beach.

Moreover, generally, members of the public are uncomfortable congregating in areas too close to private residential development, effectively creating self-imposed buffer distances even though the entire area in question is public. As proposed, there will be no area on the private parcel that will function as a privacy buffer between the proposed three-story residence and the public beach. In addition, the three-story, 35-foot height of the proposed structure so close to the seaward property line, will create a looming presence, further aggravating the likelihood and expanse of the self-imposed buffer. Without an adequate setback imposed on the private property, the close proximity of the residence effectively privatizes the public beach in front of the residence because the public is uncomfortable being so close to the residential structures and will not use that portion of the beach. Although this might occur even with a minimum setback, if there is no setback at all, the perceived public/private boundary moves even further seaward, effectively reducing usable public beach area.

The Commission recognizes the historic pattern of development on beach fronting properties in Sunset Beach over the last few decades has been to allow a zero or minimal setback from the seaward property line. The beachfront setback in the County LCP for the area allowed a zero-foot setback from the seaward property line. Many homes have been constructed with no or very minimal beachfront setback, including a number recently approved by the Commission. The Commission re-assumed permit-issuing authority for the Sunset Beach area in 2011 following its annexation into the City of Huntington Beach and the resultant lapse of the County LCP for the area. Since that time the Commission has approved six projects with zero or minimal (less than 2 foot) setbacks from the seaward property line, including two earlier residential projects by this same developer/applicant. In addition, the Commission also approved one project with a seaward setback ranging from 2'9" to 6'3".<sup>8</sup> Additionally, numerous projects were approved by the County under its nearly 30 years of LCP authority. The County's certified LCP also allowed limited encroachments onto the public beach area, further contributing to the issues raised by inadequate seaward setback requirements.

In a meeting with Commission staff on 3/5/18, the applicant mentioned that the City of Newport Beach Implementation Plan, which was recently approved by the Commission, allows reduced setbacks for residential development abutting the public beach. However, review of that City's

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<sup>8</sup>5-17-0017 (Redhill) zero foot setback; 5-16-0419 (Von Blasingame) zero foot setback; 5-15-1294 (Bassaly) zero foot setback for two new residences; 5-13-0685 (Senn) setback ranges from 4" – 1'6"; 5-13-065 (Valenzuela) setback ranges from 2'9" – 6'3"; 5-12-014 (Small) setback ranges from 7" – 1'.

certified IP reveals that Section 21.18.030 *Residential Coastal Zoning Districts General Development Standards*, Table 21.18-2 *Development Standards for Single-Unit Residential Coastal Zoning Districts* requires a 20-foot setback from the front (seaward) property line for primary structures. In addition, IP Section 21.30.015 *General Site Planning and Development Standards*, Subsection 21.30.015 D.2.d states: “2. *Considerations. In reviewing a coastal development permit application for development along the waterfront, the review authority shall consider the following: ... d. The development’s ability to enhance public access to State tidelands and shoreline areas through project siting and design or conditions of approval; ...*”

In addition, the Commission recently approved a project similar to the currently proposed project. The two projects are similar in that both proposed limited setbacks consistent with past local government and past Commission actions in the project area (5-16-0757, Greene). The Greene project location also fronts on a wide, sandy public beach, but in Playa del Rey, in Los Angeles County. The Greene project proposed a one and a half foot setback on the ground level and zero foot setback for the upper level deck from the seaward property line. In that case, even though reduced setbacks from the seaward, beachfront property line had historically been approved by the Commission and local government in the past, the Commission imposed a minimum five-foot setback from the seaward property line. The Commission made similar findings in that case as are described above. Therefore, recent Commission actions have found that imposing a setback for residential development adjacent to public beach area is appropriate. In the Playa del Rey case, a minimum five-foot setback was imposed. The recently certified Newport Beach LCP also requires a minimum setback for residential development adjacent to the beach. In the Newport Beach LCP the setback is a minimum of 20 feet and possibly more when warranted to assure adequate public access (or for others reasons specified in the IP, such as hazards).

It must also be recognized that the area immediately seaward of the beachfront properties in Sunset Beach is somewhat separated from the area of primary sandy beach use by the public due to the presence of a vegetated berm/sand dune located approximately 20 - 40 feet seaward of the private property lines. In some ways, it is this berm that unofficially delineates the de facto private/public boundary. Between this berm and the private residential lots (and to some extent within the berm itself), private encroachments have historically been allowed (under the formerly certified LCP for the area)<sup>9</sup>. However, more recently, applicants for development on these beachfront lots have removed existing encroachments and new encroachments have not been proposed.<sup>10</sup>

Nevertheless, the Commission must not be bound by past decisions that do not stand up under current information and conditions. One factor to be considered that was not a factor when the Commission certified the County’s LCP for Sunset Beach (originally certified in 1982, with a comprehensive update approved in 1991) is future sea level rise. This is discussed in far greater detail in the preceding section of this staff report. As described there, scientific opinion overwhelmingly accepts that the seas are rising and that such rising will have significant impacts

<sup>9</sup> The formerly certified LCP allowed *temporary uses and structures accessory to residential development on contiguous Sunset Beach Residential properties subject to a Coastal Development Permit and a Public Property Encroachment Permit.*

<sup>10</sup> 5-17-0017 (Redhill); 5-17-0524 (Perricone); 5-16-0419 (Von Blasingame); 5-13-0678 (Senn); 5-13-0650 (Valenzuela); also 5-15-0420 (Smith-Alakor) did not have existing encroachments and no new encroachment was proposed.

on existing, low-lying, coastal communities such as Sunset Beach. The only real sea level rise questions are not whether the seas are rising but by how much and how soon.

The best available SLR science for this area is USGS COSMOS. Review of COSMOS modeling in the immediate project vicinity indicates the currently wide sandy beach will likely narrow significantly over the 75-year life of the proposed residential development (see exhibit 2). As reflected in the COSMOS modeling (and as described previously), Sunset Beach is very vulnerable to impacts of sea level rise. Even though, at this time, it appears that the greatest threat to existing development in Sunset Beach may come from the harbor inland of the subject site rather than the ocean, the threat to the size and extent of existing public sandy beach (as opposed to existing development) from the ocean is significant. Generally, the beach in Sunset Beach ranges in width (depending on season and location, and the time elapsed from the last USACOE nourishment activity) from approximately 350 to 400 feet. That is expected to narrow significantly with sea level rise over time. The exact extent of loss of sandy public beach is not known with certainty, but COSMOS modeling suggests loss of all but a few tens of feet (see exhibit 2). Some reasonable predictions suggest a loss on the order of 200 to 250 feet. In addition, impacts to the area of sandy beach should the USACOE led beach replenishment project cease or become less frequent could worsen this loss of sandy beach scenario.

Although the Coastal Hazard Analysis prepared for the project finds that the proposed residence is expected to be safe over its 75-year life, the same cannot be said for the current beach width. Even the applicant's coastal hazards analysis concedes that, with SLR on the order of 4.1 feet and in the absence of the USACOE beach replenishment, the beach width in front of the subject site would be expected to recede to a width of 60 feet (the distance between the subject site and the shoreline).<sup>11</sup> This is all to say, that as the beach width narrows with sea level rise, greater pressure will be put on the area of public sandy beach remaining. Development allowed too close to the public sandy beach area (i.e. allowed with zero setback) would have the effect of further constraining areas of sandy beach available for public beach use for the reasons described above. This reinforces the need to increase the seaward setback as necessary to maximize the sandy beach area remaining available to the public as the beach narrows due to SLR

As proposed, the project would not maximize public access as required by Section 30210 of the Coastal Act. In addition, Coastal Act Section 30221 requires that oceanfront land suitable for recreational use shall be protected for recreational use. With expected future sea level rise, the area of sandy public beach will decrease and, consequently demand will increase. The proposed project will not protect land suitable for recreational use (the sandy public beach area adjacent to the subject site), inconsistent with Section 30221. Finally, the proposed project will not balance the competing demands of public use and privacy in a manner that emphasizes public recreation and access, as is required by Section 30214 of the Coastal Act. Therefore, as proposed, the project is inconsistent with Sections 30210, 30221, and 30214 of the Coastal Act. However, if the proposed residence were setback a minimum of five (5) feet from the seaward property line, some of the pressure due to the public/private interface described above could be reduced to some degree. A five-foot structural setback from the seaward property line would allow the

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<sup>11</sup> "Figure 1[of the 12/27/17 Geosoils response]<sup>11</sup> shows that under 125 cm (4.1 feet) of SLR the shoreline is still about 60 feet from the site. This assumes that NO nourishment takes place, which is very unlikely"



applicant to conduct routine maintenance on the structure from within the private property lines, without encroaching onto public beach area. Additionally, a five-foot setback would provide space that could provide a degree of privacy for residents of the proposed structure. Moreover, the effects of the “self-imposed” buffer would also be reduced.

Therefore, the Commission imposes **Special Condition 1**, which requires that the proposed development be setback a minimum of five feet from the seaward property line on both the ground floor and all upper levels (including balconies) and that, prior to the issuance of the permit, the applicants submit revised plans reflecting these required changes, for the review and approval by the Executive Director. Ground-level decks would be allowed in the setback area. The Commission further finds that an even greater setback than required by **Special Condition 1** may be appropriate, and that this issue should be carefully evaluated as part of the future LCP amendment to incorporate this annexed area into the City’s LCP. In this case, imposition of a minimum five-foot setback from the seaward property line should be considered the minimum setback necessary to allow for normal repair and maintenance activities of the residence on site to occur on the applicant’s property without requiring encroachment into public beach, provide a minimum privacy buffer, avoid the appearance of privatization of the public sandy beach area, and generally help to minimize potential conflicts between private property owners and members of the public visiting Sunset Beach. Only as conditioned can the proposed development be found to be consistent with the public access and recreation policies of Chapter 3 of the Coastal Act.

#### **Encroachments**

The Coastal Act requires that public access and recreation be maximized. The subject site is located adjacent to a wide, sandy public beach. Vertical public access to the public beach in front of the site is available approximately 90 feet southeast (downcoast) of the subject site at the end of 10<sup>th</sup> Street and approximately 60 feet northwest (upcoast) of the site, at the end of 11<sup>th</sup> Street. Lateral public access along the wide sandy beach is available seaward of the oceanfront property line at the subject site. (**Exhibit 1**, Vicinity Map and Aerial Photo). All existing encroachments seaward of the property line (including deck, steps and wood fence) are proposed to be removed with the proposed development. In order to assure that the existing seaward encroachments are removed as proposed by the applicant, the Commission imposes **Special Condition 2** which requires that the removal of the encroachments be carried out as proposed.

The proposed development, as conditioned by Special Conditions 1 and 2, will not adversely affect the public’s ability to gain access to, and/or to use the coast and nearby recreational facilities. Furthermore, as conditioned to require waiver of future shoreline protection (**Special Condition 3**), approval of the proposed development further ensures protection of coastal public access by avoiding potentially significant adverse impacts to the beach which are generally known to occur with placement of shoreline protective devices on or near the beach. (See discussion above.) Therefore, the proposed development, as conditioned, conforms to Section 30210 of the Coastal Act. As required by Section 30604(c) of the Coastal Act, the Commission hereby finds that the proposed development, as conditioned, is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act.

#### **D. WATER QUALITY**

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 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 waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

The proposed development has the potential for construction and post-construction discharge of polluted runoff from the project site into coastal waters, either directly or via the community's storm drains, which ultimately flow to the sea. The applicant is proposing measures to address these water quality concerns, including directing sideyard drainage to two sediment basins.

Special **Condition 4** requires the project to conform to the site drainage plan as proposed. (**Exhibit 3**). In addition, the Commission imposes **Special Condition 5** which identifies construction related measures to be incorporated into the project during construction. By incorporating these water quality protection measures into the proposed development, as conditioned, the project minimizes the effect of construction and post-construction activities on the marine environment. Therefore, the Commission finds that the proposed development, as conditioned, conforms to Sections 30230 and 30231 of the Coastal Act regarding the protection of water quality to promote the biological productivity of coastal waters and to protect human health.

#### **E. DEVELOPMENT**

The development is located within an existing developed area and is compatible with the character and scale of the surrounding area. However, the proposed project raises concerns that future development of the project site potentially may result in a development which is not consistent with the Chapter 3 policies of the Coastal Act. Section 30610(a) of the Coastal Act provides that certain improvements to existing single-family homes do not require a coastal development permit, subject to Section 13250 of the Commission's regulations, which lists certain improvements to single-family structures that require a coastal development permit because they involve a risk of adverse environmental effect, including those improvements to a structure that is located on a beach (13250(b)(1)). The Commission finds that exemption from coastal development permit requirements for certain improvements to existing single-family homes per section 30610(a) does not apply to the proposed single-family structure because it is

located on a beach. Thus, to assure that future improvements are consistent with the Chapter 3 policies of the Coastal Act, the Commission finds that it is necessary to impose **Special Condition 6** prohibiting the construction of future improvements to the proposed single-family structure without first obtaining an amendment to this permit or a new coastal development permit. Therefore, as conditioned, the development conforms to the Chapter 3 policies of the Coastal Act.

#### **F. DEED RESTRICTION**

To ensure that any prospective future owners of the property are made aware of the applicability of the conditions of this permit, the Commission imposes **Special Condition 9**, requiring that the property owner record a deed restriction against the property, referencing all of the above special conditions of this permit and imposing them as covenants, conditions and restrictions on the use and enjoyment of the property. Thus any prospective future owner will receive actual notice of the restrictions and/or obligations imposed on the use and enjoyment of the land including the risks of the development and/or hazards to which the site is subject, and the Commission's immunity from liability. Therefore, the Commission finds that the proposed development, as conditioned, conforms to the Coastal Act by ensuring that any successors-in-interest have proper actual notice, recorded against the subject parcel, of the proposed development's required mitigation measures that mitigate the development's impacts on coastal resources.

#### **G. LOCAL COASTAL PROGRAM**

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit must be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. Orange County's LCP for Sunset Beach was effectively certified in 1982 and updated in 1992. However, Sunset Beach was annexed into the City of Huntington Beach effective August 2011. This annexation terminated the County's LCP permitting jurisdiction for the area. The Sunset Beach annexation area has not yet been incorporated into the City of Huntington Beach certified LCP. Thus, there is not currently an effective certified LCP for Sunset Beach and, therefore, the Chapter 3 policies of the Coastal Act provide the standard of review for coastal development permits in the area. The previously certified Sunset Beach LCP may be used as guidance as appropriate. As conditioned, the proposed development is consistent with the Chapter 3 policies of the Coastal Act. Approval of the project, as conditioned, will not prejudice the ability of the local government to prepare an LCP that is in conformity with the provisions of Chapter 3 of the Coastal Act.

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

Section 13096(a) 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. The City determined that the project qualifies for a CEQA exemption. Typically projects are exempt from CEQA pursuant to section 15303(a) of the CEQA Guidelines when they consist of construction of one single-family residence located within an urbanized residential zone. 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**

- 1) Formerly Certified County of Orange Sunset Beach Local Coastal Program.
- 2) City of Huntington Beach Initial Plan and Zoning Review No. 17-010  
(Otis/Bassaly): Approval in Concept; 7/25/17
- 3) Coastal Hazard Study, TGR Geotechnical, 10/7/2017; Response to California Coastal Commission Review Comments, TGR Geotechnical, 11/29/17; Coastal Hazard & Wave Runup Study Review Response, GeoSoils, Inc., 12/27/17; GeoSoils Memorandum, 2/13/18
- 4) Geotechnical Investigation Report, ZS Engineering, 5/20/2017