

CALIFORNIA COASTAL COMMISSION

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STAFF REPORT: REGULAR CALENDAR

Application Nos: 5-18-0907 & 5-18-0908

Applicant: Nerja Investments, LLC

Agent: David Neisch

Location: 219 & 221 17th St., Seal Beach, Orange County
(APN: 199-064-55)

Project Description: Subdivide a 6,962 sq. ft. lot into two lots, construct a 3,604 sq. ft. 2-story single-family residence with 2-car garage on the first lot, and construct a 2,970 sq. ft. 2-story single-family residence with 2-car garage on the second lot.

Staff Recommendation: Denial

SUMMARY OF STAFF RECOMMENDATION:

This is a combined staff report for Coastal Development Permit (CDP) Applications No. 5-18-0907 and 5-18-0908. These two applications will share a combined report and hearing because both applications rely on the Commission's approval of a lot subdivision. A separate vote must be taken for each application. The applicant proposes to subdivide a 6,962 sq. ft. lot into two lots and construct a single family home and two-car garage on each resulting lot in Seal Beach. CDP Application No. 5-18-0907 proposes the construction of a new 3,604 sq. ft. single family residence and garage on a new 3,455 sq. ft. lot located at 219 17th Street. CDP Application No. 5-18-0908 proposes the construction of a new, 2,790 sq. ft. single family residence and garage on a new 3,508 sq. ft. lot located at 221 17th Street ([Exhibit 2](#)).

The existing 6,962 sq. ft. lot is currently undeveloped, and was formerly part of a rail right-of-way that extends from Electric Avenue Median Park, diagonally through a residential neighborhood, to the Naval Weapons Station in Seal Beach ([Exhibit 1](#)). The subject lot and surrounding undeveloped lots comprising the former right-of-way are irregular in shape and orientation with respect to the

surrounding pattern of development, and the proposed development includes two single family residences that would also be oriented at an irregular angle.

The development, as proposed, is inconsistent with Section 30253 of the Coastal Act, which requires new development minimize risks to life and property in areas of high flood hazard, and assure stability and structural integrity, respectively. The Naples-Seal Beach-Sunset Beach region is expected to experience extensive coastal flooding with as little as 3.3 ft. of sea-level rise (SLR) or as little as 1.6 ft. of SLR during a 100-year storm event ([Exhibit 4](#)). These thresholds of SLR are projected to occur during the anticipated duration of the development. The property is also located within one of the most vulnerable parts of Seal Beach, extending from the San Gabriel River, roughly south of Pacific Coast Highway and north of Electric Avenue, to the Anaheim Bay. This portion of Seal Beach is projected to have the highest vulnerability to multiple coastal hazards due to hydraulic connections to inland inundation and flooding from both the San Gabriel River and Anaheim Bay, and storm flooding. Thus, the subject property is located in a highly vulnerable portion of a highly vulnerable region, approximately 530 feet inland from the western edge of Anaheim Bay, and less than one mile southeast of the San Gabriel River.

The Interpretive Guidelines for Addressing SLR in Local Coastal Programs and Coastal Development Permits adopted by the Commission in 2015 state that to comply with Section 30253 of the Coastal Act, “projects will need to be planned, located, designed, and engineered for the changing water levels and associated impacts that might occur over the life of the development.” The proposed subdivision and construction of two single family residences is not designed or engineered for the changing water levels and associated impacts that are anticipated over the life of the development.

More importantly, the proposed subdivision is not consistent with Section 30253 of the Coastal Act because it does not *minimize* risks to life and property; rather, the proposal for the subdivision would encourage residential growth in an area that is extremely vulnerable to sea level rise impacts thereby increasing risks to life and property. The two proposed houses, without a City-wide strategy to address flooding, would likely be impacted by flooding over the life of the development, and as such could not assure structural stability in a hazardous area. There is little or nothing that could be done on the subject site to prevent the threat of flooding, unlike a seawall constructed on the beach-front parcel, the owner of the subject site will have little control over the threat of flooding in the near future because the lot is positioned in between flooding from the bay and the river. It is possible that the homes may be designed to withstand periodic or continuous flooding through adaptive measures. However, such measures are not proposed at this time and would not ensure that the required critical infrastructure that supports the proposed homes would also be protected, such as utilities and the public road.

Unlike structural development, which can be designed to incorporate adaptive elements like waterproofing or elevation, subdivisions have little to no adaptive capacity. Thus, it is not always feasible to mitigate the impacts created by subdivisions. Because the density of a site is based on the size of the subject site, a subdivision can effectively increase the density and intensity of use of a site in a manner that is different than if the same two units were built on a single, un-subdivided lot. For example, if two houses were built on a single, multi-family zoned lot, the lot could be downzoned to only allow one single-family residence, and the second house would become existing non-conforming, and potentially removed if the site were to be redeveloped. Additionally, if the site

were subdivided, there would be two lots, instead of one, for which an owner may claim the right to develop or to be compensated if government regulation deprives the owner of all economically beneficial use of the property, and if there is any change in zoning code in the future that allows for two units on one lot, then there could be a much larger increase in intensity and density on the project site. It is important to remember that the subdivision of the lot proposed in this project could be an action that lasts in perpetuity, eventually long beyond the 75-year anticipated duration of a residential structure. Subdividing the lot could limit future options for long term, community-scale SLR adaptation by increasing the number of lots and potential properties that would have to be incorporated into a community scale strategy and could result in increased investment in an area that may eventually fail. Because the vulnerability of the site will only increase after 2094, the larger question at hand in this proposed project is whether it is consistent with the Coastal Act to increase development potential in an area so vulnerable to sea level rise.

The Commission's adopted 2018 Sea Level Rise Policy Guidance recommends limiting subdivisions in areas vulnerable to sea level rise unless the new lot(s) could meet certain criteria to ensure that when the lots are developed, the development will not be exposed to hazards or pose any risks to protection of coastal resources. Such specific criteria could include: resultant parcels contain a buildable area in which development on new lots would comply with the resource protection policies of the Coastal Act, would remain located on private property despite the migration of the public trust boundary, would not require the future construction or augmentation of a shoreline protective device, and be adequately served by public services (e.g., water, sewer, and safe, legal, all-weather access as applicable) over the anticipated duration of the development. The proposed project does not meet any of these criteria: the proposed subdivision would not contain buildable area to comply with the resource protection policies of the Coastal Act since the entirety of both resulting parcels would be subject to coastal hazards. The significant regional flooding encompassing the subject property may also subject it to the public trust. The subdivision itself would not require its own shoreline protective device, but it would require and thus contribute to the need for regional SLR adaptation measures that may include augmentation of existing shoreline protective devices. Lastly, regional flooding in this area is so significant that it could cut off whole portions of Seal Beach from the mainland, whereby the subject site would be unlikely to be adequately served by public services over the anticipated duration of the development. It is unclear at this time what, if any, community-scale SLR adaptation might be implemented in Seal Beach in the future. However, even a community-scale SLR adaptation project such as levees or community-scale seawalls may not ameliorate risk at this site under high and extreme scenarios, as it will still be subject to potential ground water flooding. In sum, the proposed development is inconsistent with Section 30253 of the Coastal Act as it relates to subdivisions in hazardous areas.

Approval of a subdivision at this site has the potential to set a precedent for subdivisions and development on several other undeveloped lots which formerly comprised the rail right of way. This precedent could have cumulative impacts on coastal resources, and would prejudice the ability of Seal Beach to develop a Local Coastal Program (LCP) that is consistent with Chapter 3 Coastal Act policies.

The City received an LCP Grant from the Commission in 2016 and is currently working toward the completion of a sea level rise vulnerability assessment and an LCP, and approval of the proposed project could be inconsistent with the policies, as informed by the vulnerability assessment.

5-18-0907 & 5-18-0908 (Nerja Investments, LLC)

In denying the subject application, the Commission would only deny the subject project as proposed by the applicant. Denial of the subject application would not mean that the Commission is denying any and all development on the property. The applicant may propose other development on the site, which the Commission would review for consistency with the Chapter 3 policies of the Coastal Act.

Accordingly, staff recommends that the Commission **deny** the CDP application for the proposed project.

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APPENDICES

Appendix A – Substantive File Documents

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EXHIBITS

Exhibit 1 – Vicinity Map/Project Site

Exhibit 2 – Project Plans

Exhibit 3 – Tentative Parcel Map (TPM 2016-128)

Exhibit 4 – CoSMoS sea level rise projections

Exhibit 5 – Report of Cultural Resources Assessment

Exhibit 6 – Coastal Hazards Analysis prepared by Nerja Investments

Exhibit 7 – Supplemental Coastal Hazards Analysis prepared by GeoSoils, Inc.

Exhibit 8 – NOAA Sea Level Rise Viewer projection

I. MOTIONS AND RESOLUTIONS

Motion 1:

*I move that the Commission **approve** Coastal Development Permit Application No. 5-18-0907 for the development proposed by the applicant.*

Staff recommends a **NO** vote. Failure of this motion will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution 1:

The Commission hereby denies a coastal development permit for the proposed development on the ground that the development as conditioned will not conform with the policies of Chapter 3 of the Coastal Act and will 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. In addition, denial of the application is an action to which the California Environmental Quality Act does not apply.

Motion 2:

*I move that the Commission **approve** Coastal Development Permit Application No. 5-18-0908 proposed by the applicant.*

Staff recommends a **NO** vote. Failure of this motion will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution 2:

The Commission hereby denies a coastal development permit for the proposed development on the ground that the development as conditioned will not conform with the policies of Chapter 3 of the Coastal Act and will 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. In addition, denial of the application is an action to which the California Environmental Quality Act does not apply.

II. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION & DESCRIPTION

The applicant proposes to subdivide a 6,962 sq. ft. lot into two lots and construct a single family home and two-car garage on each resulting lot in Seal Beach. CDP Application No. 5-18-0907 proposes the construction of a new 3,604 sq. ft. single family residence and garage on a new 3,455 sq. ft. lot located at 219 17th Street. CDP Application No. 5-18-0908 proposes the construction of a new, 2,790 sq. ft. single family residence and garage on a new 3,508 sq. ft. lot located at 221 17th Street ([Exhibit 2](#)).

The existing 6,962 sq. ft. lot is currently undeveloped, and has not been previously developed because the lot was formerly part of a rail right-of-way granted to the Pacific Electric Railway Company by the United States government in 1946. The former rail right-of-way extends approximately 900 feet from Electric Avenue Median Park, diagonally through a residential neighborhood, to the Naval Weapons Station in Seal Beach ([Exhibit 1](#)). The subject lot and surrounding undeveloped lots comprising the former right-of-way are irregular in shape and orientation with respect to the surrounding pattern of development and the proposed development includes two single family residences that would also be oriented at an irregular angle of approximately 45 degrees.

The property is also located within one of the most vulnerable parts of Seal Beach, extending from the San Gabriel River, roughly south of Pacific Coast Highway and north of Electric Avenue, to the Anaheim Bay. This portion of Seal Beach is projected to have the highest vulnerability in the city to multiple coastal hazards due to hydraulic connections to inland inundation and flooding from both the San Gabriel River and Anaheim Bay, wave impacts, and storm flooding. Thus, the subject property is located in a highly vulnerable portion of a highly vulnerable region, approximately 530 feet inland from the western edge of Anaheim Bay, and less than one mile southeast of the San Gabriel River.

The project site is a large, irregularly shaped lot in a developed, residential neighborhood in the Old Town area of Seal Beach. The predominant character of the surrounding area is one or two-story residential structures with parking accessed from rear alleyways. The street fronting the proposed development (17th Street) is predominantly made up of single family residences, orientated perpendicularly to the street with an average 12 ft. front yard setback. The subject single family residences are proposed to be oriented approximately 45 degrees off of the street, and would be the only houses on the street with such an orientation. Project plans show that the two proposed houses development would be set back 15ft-6 in. and 16 ft. (at their closet corner to the street). The subject parcel is designated as Residential High Density in the City's General Plan; however, the City's General Plan is not the standard of review for CDPs. The City of Seal Beach also does not have a certified Land Use Plan that would be used as guidance prior to the certification of a Local Coastal Program. The standard of review for these applications is the Chapter 3 policies of the Coastal Act.

The proposed project received approval in concept from the City of Seal Beach on September 11, 2018. The Subdivision Technical Review Committee of the City of Seal Beach adopted Resolution Number 02-16, approving a Tentative Parcel Map (TPM 2016-128) ([Exhibit 3](#)) with conditions on May 22, 2018. Condition No. 4 of TPM 2016-128 requires the final parcel map to be submitted to

and approved by the Coastal Commission prior to being filed with the Orange County Recorder. Denial of the submitted parcel map will void the local approvals for the project.

Due to its history as a former rail right-of-way, significant ground disturbance associated with previous development is unlikely to have occurred onsite. Consistent with similar projects in the area, a cultural resources records search and field study was conducted on behalf of the applicant to identify any known or likely cultural resources that may result from proposed ground disturbance. The Cultural Resources Assessment, prepared by the Archeological Resource Management Corporation ([Exhibit 5](#)), confirmed that “because of the former presence of the Pacific Electric Railway, there is potential for finding historic resources on the property,” however, no prehistoric archaeological resources had been recorded within a half-mile radius of the property. Geologically, Quaternary old shallow marine deposits of Pleistocene age, quaternary Paralic estuarine deposits, and Quaternary beach deposits underlie the site. The report notes that Quaternary surface deposits have a high likelihood of producing significant fossil specimens. The Cultural Resources Assessment recommends monitoring during rough grading for the project.

The California coastal zone has been home to native populations for thousands of years. The Cultural Resources Assessment notes that the largest Native American tribe close to the project site was the Gabrielino/Tongva settlement of Puvunga. In accordance with the Commission’s Tribal Consultation procedures, the Native American Heritage Commission (NAHC) was contacted on March 12, 2019 to conduct a search of the Sacred Lands File. The results of this search were positive, and the NAHC provided Commission staff with a list of potential affected tribes in the area for consultation. Staff initiated consultation via letter on March 19, 2019, along with a copy of the proposed plans, narrative description of the proposed project, and maps depicting the described site, and did not receive any requests for further consultation by any of the contacted entities. Monitoring is not proposed at this time as part of the project.

B. DEVELOPMENT/HAZARDS

Coastal Act Section 30106 states, in part (emphasis added):

"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use...

Coastal Act Section 30253 states, in part:

New development shall do all of the following:

(a) Minimize risk 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 coastal bluffs and cliffs.

The development, as proposed, consists of two components: the subdivision of one lot into two lots, and the construction of a single-family residence on each resulting lot. Subdivisions, including lot splits, are included in the Coastal Act’s definition of “development” in Section 30106, and like all development in the coastal zone, require a CDP that can only be approved if the subdivision is found to be consistent with the Chapter 3 policies of the Coastal Act or, in an area with a certified LCP, with the policies of the LCP. Subdivisions can effectively increase the density and intensity of use of a site in a manner that is different than if the same density were built on a single, un-subdivided lot. For example, if two houses were built on a single, multi-family zoned lot, the lot could be downzoned to only allow one single-family residence, and the second house would become existing non-conforming, and potentially removed if the site were to be redeveloped. Two houses built on two separate multi-family zoned lots, would be still be legal structures if the land were downzoned to only allow one single-family residence. Subdivisions generally also increase the number of sites for which an owner may claim the right to develop or to be compensated if government regulation deprives the owner of all economically beneficial use of the property. Subdivisions also can add cost and logistical complexity to community scale adaptation such as geological hazard abatement districts, buyouts, and conservation easements, making it more difficult to protect coastal resources.

Sea Level Rise Guidance

On November 7, 2018, the Commission adopted a science update to its Sea Level Rise Policy Guidance. This guidance document serves as Interpretive Guidelines to help ensure that projects are designed and built in a way that minimizes risks to the development associated with SLR and avoids related impacts to coastal resources. These guidelines state, “to comply with Coastal Act Section 30253 or the equivalent LCP section, projects will need to be planned, located, designed, and engineered for the changing water levels and associated impacts that might occur over the life of the development.” The guidelines also recommend that projects proposed in potentially hazardous include a Coastal Hazards Analysis. The applicant submitted an initial Coastal Hazards Analysis on February 27, 2019 ([Exhibit 6](#)). This analysis used the Coastal Storm Modeling System (CoSMoS) and concluded that the project would face significant flood risk within the anticipated life of the structure. It also submitted a supplemental Coastal Hazards Analysis ([Exhibit 7](#)) prepared by GeoSoils, Inc., on August 7, 2019, which is discussed in further detail in [Appendix B](#) of this staff report.

Risk Aversion Scenarios

As explained in the State of California Sea Level Rise Guidance written by the Ocean Protection Council (OPC), the “risk aversion scenario” is a principle of SLR risk analysis that is used to account for variable risk tolerance for different types of development by establishing SLR probability thresholds for varying degrees of risk aversion. For example, a critical infrastructure asset, such as a hospital, should be analyzed with high risk aversion, and would use a more precautionary range of probabilities of amounts of SLR, while a parking lot or a bike path could be analyzed with lower risk aversion. In this case, the risk aversion scenario recommended by both the Commission and OPC Guidance for residential projects is “medium-high,” as it represents a

scenario that is relatively high within the range of possible future SLR scenarios and is therefore appropriately precautionary.

The Coastal Commission, in line with statewide guidance, generally advocates for a precautionary approach to sea level rise adaptation planning, which stems from the overall importance of keeping development safe from coastal hazards and protecting coastal resources, consistent with the Coastal Act. It also derives from the fact that the costs and consequences associated with inadvertently underestimating SLR hazards could be quite high. In other words, the statewide SLR guidance recommends use of the relatively high projection of SLR associated with the medium-high risk aversion scenario, even though it has a lower probability (1-in-200 chance), because of the high consequences to precious coastal resources, valuable development, and life and safety that would occur if SLR were underestimated, and the recognition that many of these impacts cannot be undone once they have occurred.

Furthermore, precaution is especially appropriate considering the increasingly dire trend in climate projections. Emerging science on ice sheet melt (e.g., DeConto & Pollard 2016) has indicated that sea level rise may occur faster than previously thought. This emerging science was *not* incorporated into the climate models used to generate the probabilities in the State and Coastal Commission guidance documents. Therefore, the sea level rise projections that are assigned a 0.5% probability in the guidance documents may, in reality, be more likely. In fact, this finding was made in [California's Fourth Climate Change Assessment](#), which *did* incorporate extreme ice sheet melt into probabilistic projections and found higher likelihoods for SLR projections similar to the medium-high risk aversion scenario. Lastly, it is important to remember that evaluating the medium-high risk aversion scenario does not necessarily mean that a project must be designed and constructed to completely avoid hazards associated with that exact amount of sea level rise. The Commission's SLR Policy Guidance states, "In some cases, it may be appropriate to design for the local hazard conditions that will result from more moderate sea level rise scenarios, as long as decision makers and project applicants plan for adaptation pathways that would allow for the implementation of alternative strategies if conditions change more than anticipated in the initial design."

In this case, the only "adaptive design" feature that the applicant has proposed is to elevate the first finished floor (FF) approximately 3 ft. above the natural lot grade of 7.27 ft (NAVD88). There is a discrepancy in various plans submitted by the applicant as to the actual FF elevation of the proposed houses; the full scale architectural set shows the FF as 8.7 ft. and 8.7 ft., respectively, while another site plan indicated a higher FF of 10.21ft. and 10.27 ft., which are the figures cited by the applicant and their hazards report as evidence of a 3 ft. raised FF. However, even this higher FF elevation would be insufficient to keep the project safe from flooding during its anticipated lifespan, and does not include any plans for adaptation pathways that would allow the project to adapt or implement alternative strategies if conditions change more than anticipated during the initial design, including but not limited to ground flood non-habitable space, waterproofing, flood shields, watertight doors, moveable floodwalls, partitions, water-resistive sealant devices, sandbagging and other similar flood-proofing techniques. For example, many of these adaptive design measures have recently been incorporated as part of the City of Newport Beach's recently certified LCP.

SLR Projections

The first step in the Commission's SLR guidance is to establish the projected SLR range for the proposed project. Using the methodology recommended by the 2018 update of the OPC's SLR

Guidance, the projected SLR ranges for the proposed project are tailored to the nearest National Aeronautic and Atmosphere Administration (NOAA) tide gauge, projected lifespan of the project, and risk aversion scenario. In the applicant’s Coastal Hazards Analysis, the projected lifespan of the project is 75 years, which is consistent with the Commission guidance’s recommended range of 75 – 100 years for residential development.

The nearest NOAA tide gauge to Seal Beach is the “Los Angeles” gauge located in San Pedro. As explained above, the Commission recommends taking a precautionary approach by evaluating the higher SLR projections, in this case, the medium-high risk aversion scenario, for most development. If constraints are identified with the higher SLR scenario, a lower SLR scenario and/or one or more intermediary scenarios may also be used to develop a broader understanding of the overall risk and timing that SLR poses a risk to the site or proposed development. In this case, intermediary scenarios are appropriate to help provide a better understanding of the timing of impacts during the lifespan of this development. Using these project-specific parameters, the appropriate SLR projections for this project are listed on **Table 1**.

Table 1. Los Angeles Tide Gauge SLR Projections

		Med.-High Risk Aversion	Approx. CoSMoS Scenario
Intermediary scenarios	High Emissions – 2040	1.2 ft.	1.6 ft.
	High Emissions – 2070	3.3 ft.	3.3 ft.
End of lifespan (2094) scenarios	High Emissions – 2090	5.3 ft.	5.7 ft.
	High Emissions – 2100	6.7 ft.	6.6 ft.

The next step is to determine how physical impacts from SLR may constrain the project site. Impacts from flooding and inundation, wave runoff, and storm surge can be analyzed using the closest CoSMoS projections to the above scenarios ([Exhibit 4](#)) (It is important to note that the CoSMoS model does not include analysis of ground water, or SLR’s impact on water tables. As such, additional underground hydraulic connections may also exist in the area, meaning that CoSMoS projections should be considered to represent conservative effects for a given scenario in those respects).

The site is not located on a beach or coastal bluff, so a coastal erosion analysis is not necessary on this site. Another helpful tool for analysis is the OPC’s probability tables that estimate the likelihood that SLR will meet or exceed a particular height by a given decade. Using the medium-high risk aversion threshold as a benchmark, one can estimate the timing of levels of SLR that exceed the risk aversion threshold.

Intermediary scenarios

The GeoSoils, Inc. report submitted by the applicant concludes that SLR of 2.8 feet could result in overtopping of the existing levees near the site. Additionally, according to CoSMoS projections of flooding due to 1.6 ft. of SLR alone, the subject lot would not be flooded. However, at 3.3 ft. SLR is projected to inundate the entirety of the subject lot, as well as an inland hazard area roughly extending from the San Gabriel River, south of Pacific Coast Highway and north of Electric Avenue, to Anaheim Bay. This inland inundation appears to be attributable to hydraulic connections to the San Gabriel River, since the rock revetment on the north edge of Anaheim Bay does not

appear to be overtopped in this scenario. Analysis of wave runup and storm surge was done with the same scenarios of SLR plus a projected 100-year storm. In those scenarios, CoSMoS shows that the entire subject site and most of the inland hazard area would be flooded at 1.6 ft., with even wider regional flooding at 3.3 ft. It is important to note that even at this relatively low amount of SLR, key infrastructure (the road network, electrical station, the storm drains, etc.) are vulnerable, which means the services these residential areas rely upon may be at risk. Furthermore, the inland flooding starts to “island” the beach-fronting part of Old Town, which means that even though these parts of the City may not be directly flooded, access and services may still be impacted. The OPC probability tables indicate that, applying the medium-high risk aversion scenario and a high emission scenario, 1.2 ft. of SLR is likely to occur between 2040 and 2050, and 3.3 ft. of SLR is likely to occur between 2060 and 2070. Since the project lifespan ends in 2094, these amounts of SLR (and consequent flooding) can be anticipated during the lifespan of the development.

End of lifespan scenarios

The 75-year lifespan in the applicant’s Coastal Hazard Analysis would put the end of life of the structure at 2094 (2019 + 75) or later. The best available science provides SLR projections for the beginning of each decade, so projected levels of SLR at both 2090 and 2100 were analyzed, which are 5.7 and 6.6 ft. of SLR, respectively. Flooding due to these amounts of SLR alone (i.e., absent storm conditions) is projected to completely inundate the subject lot and the inland hazard area. In both of these scenarios, the subject site (and broader inland hazard area) are subject to flooding from multiple hydraulic connections including to the San Gabriel river, overtopping of the beach, overtopping of the rock revetment on the north edge of Anaheim Bay, inland flooding from the Seal beach National Wildlife refuge, and the Los Cerritos Wetlands. Analysis of wave runup and storm surge was also done for these scenarios of SLR plus a projected 100-year storm. The inland flooding depicted in CoSMoS shows the entire subject site and a much more significant inland area to be flooded at 5.7 ft. of SLR, with only marginally more at 6.6 ft. It is important to note that at 5.7 ft. of SLR, this flooding is so severe that the beach fronting portion of Old Town may become an island and that whole sections of the sandy beach may disappear. The City’s ability to provide services to the subject site may also be severely impaired. The OPC probability tables indicate that 5.3 ft. of SLR is likely to occur around 2090 in the high emissions scenario, and 6.7 ft. of SLR is likely to occur between 2090 and 2100. Since the project lifespan ends in 2094, these amounts of SLR (and consequent flooding) can be anticipated during or toward the end of the lifespan of the development. This analysis demonstrates that the two proposed residential structures that would be built if the proposed subdivision is approved would be vulnerable to SLR during their anticipated lifespans.

However, it is important to remember that the subdivision of the lot proposed in this project could be an action that lasts in perpetuity, potentially long beyond the 75-year anticipated duration of a residential structure. Subdividing the lot could limit future options for long term, community-scale SLR adaptation by increasing the number of lots and potential properties that would have to be incorporated into a community scale strategy and could result in increased investment in an area that may eventually fail. Because the vulnerability of the site will only increase after 2094, the larger question at hand in this proposed project is whether it is consistent with the Coastal Act to increase development potential in an area so vulnerable to sea level rise.

GeoSoils, Inc. Report

On August 7, 2019, the applicant submitted a supplemental Coastal Hazards analysis prepared by GeoSoils, Inc. ([Exhibit 7](#)), which is dated July 23, 2019. The report uses “elevation modeling” to conclude that “SLR would have to be in excess of 2.8 feet before the ocean/bay water level could overtop the existing levees near the site.” In essence, this method compares the highest recorded water level (7.18 feet NAVD88) to the elevation of the revetment/levee at the Naval Station (10 feet NAVD88 or higher) to show that SLR of 2.8 feet would result in overtopping of the levee. The report concludes that these impacts could occur in about the year 2065 (i.e., within the anticipated duration of the proposed residential development) based upon the 0.5% probability SLR “or after the 75 year design life in more probable SLR cases.” Therefore, this report provides the same conclusion as Commission Staff: that the site is vulnerable to SLR using the methodology recommended by the State of California.

Although the GeoSoils, Inc. report ultimately confirms staff’s assessment of the vulnerability of the project site; the report nevertheless asserts that the proposed development is safe. The reasons relied on by Geosoils, Inc. can be summarized into three main themes: 1) that the project site and area are vulnerable to flooding, but only under higher and less statistically probable amounts of SLR, 2) that the project site would rely on future enhancements to the area’s flood protection infrastructure to be safe from flooding, and 3) that CoSMoS has some limitations that undermine its reliability for analysis in permits. Ultimately, the GeoSoils report concludes that the site is vulnerable, when following the state guidance, a conclusion in agreement with other regional models. The ability of future improvements to the area’s flood infrastructure to protect the project is not possible to assess at this time because no proposals for any such projects have been made or approved by the Commission at this time. Lastly, the CoSMoS tool is not unique in depicting widespread and high flood risk due to SLR in this area. NOAA’s SLR viewer yields very similar results, showing the same widespread flooding in largely the same areas, including the subject site ([Exhibit 8](#)). The agreement of multiple models, Staff’s analysis, and the report’s analysis of flood risk is due to the simple fact that the project site and broader Seal Beach area must contend with high flood risk, which will be exacerbated in the near future by SLR. Therefore, one need not rely solely on CoSMoS to reach or support this conclusion. A more detailed response to the GeoSoils, Inc. supplemental Coastal Hazards Analysis can be found in **Appendix B** to this staff report.

Impacts to Coastal Resources

The Commission’s adopted 2018 Sea Level Rise Policy Guidance provides strategies appropriate for addressing sea level rise, consistent with the Coastal Act. With regard to subdivisions, it provides: “Limit subdivisions in areas vulnerable to sea level rise: Prohibit any new land divisions, including subdivisions, lot splits, lot line adjustments, and/or certificates of compliance that create new beachfront or blufftop lots unless the lots can meet specific criteria that ensure that when the lots are developed, the development will not be exposed to hazards or pose any risks to protection of coastal resources.” Such specific criteria could include: resultant parcels contain a buildable area in which development on new lots would comply with LCP policies protecting coastal resources, would remain located on private property despite the migration of the public trust boundary, not require the future construction or augmentation of a shoreline protective device, be adequately served by public services (e.g., water, sewer, and safe, legal, all-weather access as applicable) over the anticipated duration of the development, and otherwise be consistent with all LCP policies. While this approach anticipates impacts from SLR on beachfront and blufftop lots, the same logic applies to inland lots that will be impacted by SLR.

The proposed subdivision would not contain buildable area to comply with Chapter 3 policies protecting coastal resources since the entirety of both resulting parcels would be subject to coastal hazards. The significant regional flooding encompassing the subject property may also subject it to the public trust. The subdivision itself would not require its own shoreline protective device, but it could benefit from and contribute to the need for regional SLR adaptation measures that may include augmentation of existing shoreline protective devices. The new development would not be entitled to coastal protection, as stated in Section 30235 of the Coastal Act. It is unclear at this time what, if any, community-scale SLR adaptation might be implemented in Seal Beach in the future. However, even a community-scale SLR adaptation project such as levees or community-scale seawalls may not ameliorate risk at this site under high and extreme scenarios, and will still be subject to potential ground water flooding¹. Lastly, regional flooding in this area is so significant that it could cut off whole portions of Seal Beach from the mainland, whereby the subject site would be unlikely to be adequately served by public services over the anticipated duration of the development. In sum, the proposed development is inconsistent with Section 30253 of the Coastal Act as it relates to subdivisions in hazardous areas.

Section 30253 of the Coastal Act requires siting new development such that it minimizes risks to life and property in flood hazard areas, assures stability and structural integrity, and does not require the construction of protective devices that substantially alter natural landforms. Concurrently,² the Coastal Act also requires concentrating development in existing developed areas able to accommodate it (as required by Section 30250), which provides more opportunities for people to live near places they work and recreate, such as the beach, thus reducing vehicle miles traveled and preserving open spaces that might otherwise have to be developed, and thereby, reduces impacts to coastal resources. Taken together, these Coastal Act policies support maintaining housing density in safe areas to assure the stability and structural integrity of development. In this case, the proposed project would permanently increase density in a hazardous area. On a broader scale, maintaining density in locations at reduced risks from sea level rise will have the net effect of helping to maintain housing stock that is safe from hazards and relieve development pressure in unsafe areas in the long-term, thus carrying out Section 30253's hazards policies on a community-scale.

Conversely, limiting development in areas that are likely to be affected by coastal hazards facilitates the protection of coastal resources. In this case, the project site is in an area with a sandy beach, which could be adversely impacted through a process commonly called "coastal squeeze." As sea levels rise, beaches trapped between the rising seas and the first line of development could be threatened. Often, the first line of development impedes the ability of the beach to naturally migrate

¹ The applicant's supplemental coastal hazards analysis by GeoSoils, Inc. claims that "the future maximum groundwater elevation at the site would be the typical groundwater elevation plus at most .06 feet (1% of 6 feet of SLR)." It cites a 2017 study by Daniel Hoover, et. al., which draws its conclusions based on sites that may bear little geological similarity to the geology of the subject site, and thus should not be relied to describe SLR impacts to groundwater at the site.

² Section 30250(a): Location; existing developed area. (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

inland over time and reduces the sources of sand supply created by erosion that contribute to beach accretion, leading to the narrowing and eventual loss of beaches and other shoreline habitats. Without strategic planning, this may lead to economic losses due to reduced recreational visitors, and also to occasional flooding of public coastal facilities and related damages. The loss of beach area from coastal squeeze represents a loss of many coastal resources protected by the Coastal Act, including public access, recreational opportunities and associated economic benefits, habitats and marine resources, scenic and visual qualities of coastal communities. Coastal squeeze also presents challenges for carrying out the public trust doctrine, and presents a significant environmental justice issue if the public loses its ability to access the shore as public beach spaces diminish over time. Coastal squeeze would also decrease the likelihood of successful preservation of the coastal resources associated with the beach, as required by Sections 30210, 30220, 30240(b), 30251 of the Coastal Act.

Here, the project involves subdivision of a lot into two lots and construction of single-family residences on each lot. The proposed development, if approved, would increase residential development in a hazardous location that would not minimize risks to life and property. If the Commission were to approve the proposed project, it would encourage additional new development in a hazardous area and prejudice the ability of the City of Seal Beach to prepare an LCP that is consistent with the Chapter 3 policies of the Coastal Act. The Commission, therefore, denies the project as proposed by the applicant.

C. PUBLIC ACCESS

Coastal Act Section 30212 states, in part:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act Section 30252 states:

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

The Coastal Commission generally reviews new development for consistency with on-site parking standards in order to minimize increased demand for public street parking, and thus protect public parking for members of the public who wish to access the coast. Consistent with past Commission actions in Seal Beach and residential Orange County, new residential developments should provide two off-street spaces per residential unit. The applicant has proposed two parking spaces for each of the two single family residences, which is consistent with the past Commission action. The parking spaces for each residence are proposed to be located in a 2-car garage at the rear of the building. All of the parking would be accessed through the rear alley, which does not provide public parking spaces. In addition, no curb cuts would be created for the project, so public parking along 17th Street would not be adversely impacted by the project.

Section 30212(a) of the Coastal Act requires that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects. Public access from the nearest public roadway would not be impacted by the proposed development. The proposed parking is sufficient for the two proposed single family residences and would not impact public parking or access surrounding the project site and there is adequate existing public access to the coast nearby. Therefore, the proposed project is consistent with Section 30252 and Section 30212(a) of the Coastal Act. However, it is inconsistent with other sections of Chapter 3, specifically Section 30253, and therefore must be denied.

D. LOCAL COASTAL PROGRAM (LCP)

Coastal Act section 30604(a) states that, prior to certification of a local coastal program (“LCP”), a coastal development permit can only 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. On July 28, 1983, the Commission denied the proposed City of Seal Beach Land Use Plan (LUP) as submitted and certified it with suggested modifications. The City did not act on the suggested modifications within six months from the date of Commission action. Therefore, pursuant to Section 13537(b) of Title 14 of the California Code of Regulations, the Commission’s certification of the land use plan with suggested modifications expired. The LUP has not been resubmitted for certification since that time. However, the City received an LCP Grant from the Commission in 2016 and is working toward the completion of a sea level rise vulnerability assessment and Local Coastal Program update.

Siting new development in an area that is highly vulnerable to coastal hazards could set a precedent for future development in this area and other areas of the City that are hazardous or unlikely to be resilient from future sea level rise impacts. Although SLR adaptation is a larger issue that should be addressed by the City through its Local Coastal Program, a proposal that increases risk to property in the manner currently proposed could prejudice the City’s ability to prepare a LCP that is consistent with Chapter 3 of the Coastal Act.

E. CONCLUSION

The applications before the Commission are for the subdivision of one existing lot into two lots, and construction of one single-family home on each resulting lot. The proposed development is not

consistent with Section 30253 of the Coastal Act because it would expand residential development in an area vulnerable to sea level rise and, hence, would not minimize risks to life and property in a hazardous area. Approval of the project would set a precedent that would encourage residential development in this hazardous location, which could prejudice the ability of the City to prepare a LCP that is consistent with Chapter 3 of the Coastal Act. The Commission, therefore, denies the applications. In denying the subject applications, the Commission is only reviewing the development currently proposed by the applicant. Denial of these applications would not mean that the Commission is denying any and all development on the property. The applicant is free to propose other development on the site, which the Commission would review for consistency with Chapter 3 policies of the Coastal Act.

F. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, 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. However, CEQA does not apply to private projects that public agencies deny or disapprove. Pub. Res. Code § 21080(b)(5). *See also* Cal. Code Regs., tit. 14, § 15061(b)(4). Accordingly, because the Commission is denying the proposed project, it is not required to adopt findings regarding mitigation measures or alternatives.

In addition, the City of Seal Beach, as the lead agency for this proposed project for CEQA purposes, determined the project to be categorically exempt from CEQA requirements, under Class 15 of the categorical exemptions developed pursuant to CEQA section 21084, as a “minor land division.” *See* Cal. Code Regs., tit. 14, § 15315.

Appendix A - Substantive File Documents

- Sea Level Rise Policy Guidance, Original Guidance – August 12, 2015
- Sea Level Rise Science Update – November 7, 2018
- State of California Sea-Level Rise Guidance – 2018 Update