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STAFF REPORT: REGULAR CALENDAR

Application No.: 1-22-0319

Applicant: Brian and Angie Papstein

Location: 1255 King Salmon Ave., Eureka area

Project Description: (1) Merge three lots to create one approximately 0.21-acre lot; and (2) construct a 2,736-square-foot, two-story, single-family residence with a 520-square-foot asphalt driveway.

Staff Recommendation: Approval with conditions

SUMMARY OF STAFF RECOMMENDATION

The applicants propose to merge three small residential lots into one approximately 0.21-acre lot and construct a new single-family residence. The subject site is located within the King Salmon subdivision on the shores of Humboldt Bay. The subdivision, which is located directly across from the bay entrance channel, consists of former tidelands that were partially filled during the mid-1900s and were later divided, mostly into 25-foot-wide, 5,000-square-foot (or smaller) lots. The tidelands were filled in a manner that left interior tidal channels within the subdivision, and while many of the King Salmon lots are adjacent to the tidal channels, the subject property is not.

The primary Coastal Act issue raised by new development in King Salmon is whether the proposed development would be constructed in a manner that would protect it from flood hazards consistent with section 30253 of the Coastal Act. The risk of flooding is a significant natural hazard affecting proposed development within King Salmon, and nearly the entire King Salmon subdivision lies within the FEMA-mapped 100-year flood zone and is subject to flooding from extreme high tides and tsunamis. The proposed

residence would be located in one of the few areas not located in the FEMA-mapped 100-year flood zone of Humboldt Bay.

While the proposed development is sited to be above the current FEMA-mapped 100-year flood zone, extreme high tide events in conjunction with future sea level rise will increase the vulnerability of the subject site. In order to address future risks associated with sea level rise, the project has been designed to incorporate certain design measures to reduce flood hazard risks. Special Condition 1 requires final plans to conform to the proposed hazard mitigation measures including but not limited to: (1) locating the habitable portions of the structure on the second floor at an elevation above the maximum flood elevation and above a ground floor storage, bathroom, and laundry space; (2) incorporating flood vents into the first floor foundation and walls to accommodate flood waters without collapsing the structure; and (3) elevating and attaching to the concrete portions of the first floor walls all mechanical and utility installations and cabinets for the storage of hazardous materials (e.g. household paints and solvents). Special Conditions 2 through 4 limit use of the lower floor to the proposed uses unless the owner obtains a permit amendment from the Commission to allow other uses; require the applicant to assume the risks of coastal hazards of the property and waive any claim of liability on the part of the Commission; and require that all future improvements to the development authorized by this permit that might otherwise be exempt from CDP requirements obtain an amendment to this CDP or a new CDP.

The project, as conditioned, includes all feasible mitigation measures necessary to find the project consistent with the Coastal Act's policies requiring minimization of flood hazards risks, protection of public trust lands, and the protection of visual resources, nearby environmentally sensitive habitat areas, water quality, and public access.

The Motion to adopt the staff recommendation of approval with conditions is found on [page 4](#).

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LIST OF EXHIBITS

- Exhibit 1 – Location Maps
- Exhibit 2 – Mapped Hazard Areas
- Exhibit 3 – Site Plan
- Exhibit 4 – Design Plans
- Exhibit 5 – Elevations
- Exhibit 6 – Soils Report (excerpt)

I. Motion and Resolution

A. Motion

I move that the Commission **approve** Coastal Development Permit Application No. 1-22-0319 pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval 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.

B. Resolution

The Commission hereby **approves** Coastal Development Permit Application No. 1-22-0319 for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

This permit is granted subject to the following standard conditions:

- 1. Notice of Receipt and Acknowledgment.** The permit is not valid, and development shall not commence, until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

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

III. Special Conditions

This permit is granted subject to the following special conditions:

1. **Final House Plans.** PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT 1-22-0319, the applicant shall submit to the Executive Director for review and written approval final construction plans in substantial compliance with those submitted to the Commission on May 4, 2022, including incorporation of the following proposed geologic and flood hazard risk minimization measures:
 - A. All final design and construction plans, including site preparation, foundation design, and drainage plans, shall be consistent with the recommendations contained in the geologic report of the site prepared by S.E.E Engineering dated February 7, 2022;
 - B. The finished floor elevation of the second story of the residence shall be at least 11 feet above the ground elevation of the parcel and at an elevation at least 24 feet (NAVD 88), which is 6.9 feet above the estimated 100-year sea level rise scenario;
 - C. Storage cabinets for hazardous materials (e.g., paints, solvents, household chemicals) shall be attached to the first-floor walls of the addition at as high an elevation as feasible;
 - D. All mechanical and utility installations shall be attached to the first-floor walls at as high an elevation as feasible;
 - E. Use of the lower (ground) floor of the structure shall be limited to storage space, laundry facilities, a bathroom, and unfinished space;
 - F. Flood vents shall be installed within portions of the foundation, first floor walls, and garage door at appropriate intervals and consistent with FEMA standards.

The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

- 2. Restrictions on Use of Lower Floor.** Use of the lower (ground) floor of the addition shall be limited to storage space, laundry facilities, a bathroom, and unfinished space as proposed. No use of the lower (ground) floor for other purposes shall occur without an amendment to CDP 1-22-0319 from the Commission.
- 3. Assumption of Risk, Waiver of Liability, and Indemnity Agreement.** By acceptance of this permit, the permittee acknowledges and agrees (a) that the site may be subject to hazards from earth movement, earthquake shaking, liquefaction, differential settlement, erosion, flooding, and other geologic and flood hazards, some of which will worsen with future sea level rise; (b) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (c) 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 (d) 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.
- 4. Future Development Restriction.** This permit is only for the development described in Coastal Development Permit Application No. (CDP) 1-22-0319, including, but not limited to, the lot merger and new residence. The following future development restrictions apply:

 - A. Pursuant to Title 14 California Code of Regulations (CCR) section 13250(b)(6), the exemptions otherwise provided in Public Resources Code (PRC) section 30610(a) shall not apply to the development governed by the CDP 1-22-0319. Accordingly, any future improvements to the structures authorized by this permit shall require an amendment to CDP 1-22-0319 from the Commission or shall require an additional CDP from the Commission or from the applicable certified local government.
 - B. In addition, an amendment to CDP 1-22-0319 from the Commission or an additional CDP from the Commission or from the applicable certified local government shall be required for any repair or maintenance identified as requiring a permit in PRC section 30610(d) and Title 14 CCR §13252(a)-(b); and
- 5. Deed Restriction.** PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the permittee shall submit to the Executive Director for review and approval documentation demonstrating that the permittee has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (a) 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 (b) 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.

- 6. Protection of Archaeological Resources.** If an area of cultural deposits or human remains is discovered during the course of the project, all construction shall immediately cease and shall not recommence until a qualified cultural resource specialist, in consultation with the Tribal Historic Preservation Officers of the Wiyot Tribe, the Bear River Band of Rohnerville Rancheria, and the Blue Lake Rancheria, analyzes the significance of the find and prepares a Supplementary Archaeological Plan, notifies the Coastal Commission's North Coast District Office, submits the Plan to the Commission for the review and approval of the Executive Director, and receives a written determination from the Executive Director whether a permit amendment is necessary prior to implementing the Plan and recommencing construction. The Executive Director may either: (A) approve the Supplementary Archaeological Plan and determine that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, or (B) determine that the changes proposed therein are not de minimis, and the an amendment to CDP 1-22-0319 is required.
- 7. Construction Responsibilities.** All construction-related best management practices (BMPs) proposed by the permittee in the CDP application materials shall be implemented, including, but not limited to, the following:

 - A. No construction materials, debris, or waste shall be placed or stored where it may be subject to entering coastal waters;
 - B. Any and all debris resulting from construction activities shall be removed from the project site and disposed of properly;
 - C. During the course of the project work, all trash shall be properly contained, removed from the work site on a regular basis and properly disposed of to avoid contamination of habitat during demolition and construction activities;
 - D. All on-site stockpiles of construction debris and soil or other earthen materials shall be covered and contained whenever there is a potential for rain, to prevent polluted water runoff from the site; and

E. BMPs shall be used to prevent the entry of polluted stormwater runoff into coastal waters during construction and post-construction, including the use of appropriate BMPs for erosion and runoff control and post-construction BMPs for roof runoff controls, vegetated buffer strips, and bioretention as detailed in the current California Storm Water Quality Best Management Handbooks (<http://www.cabmphandbooks.com>).

8. Landscaping Restrictions. Only native and/or non-invasive plant species shall be planted as landscaping on the property. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California, shall be employed or allowed to naturalize or persist on the site. No plant species listed as a “noxious weed” by the governments of the State of California or the United States shall be utilized within the bounds of the property.

9. Lighting Limitations. All exterior lighting, including any lights installed as part of the development approved under CDP 1-22-0319, or in the future, shall be low-wattage, shielded, and downcast such that no light will shine beyond the bounds of the property or into adjacent sensitive habitats.

10. No Future Shoreline Protective Device and Removal of Development.

A. By acceptance of this Permit, the applicants agree, on behalf of themselves and all successors and assigns, that no shoreline protective device(s) shall be constructed to protect the development approved pursuant to Coastal Development Permit No. 1-22-0319 including, but not limited to, the residence, foundation, garage, and storage and other non-habitable spaces on the lower (ground) floor, in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, landslides, or other natural hazards in the future. By acceptance of this Permit, the applicants hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235 or any other applicable law.

B. By acceptance of this Permit, the applicants further agree, on behalf of themselves and all successors and assigns, that they are required to remove all or a portion of the development authorized by the permit, and restore the site, if:

- (1) the County or any other government agency with legal jurisdiction has issued a final order, not overturned through any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy or use due to damage or destruction from waves, flooding, erosion, bluff retreat, landslides, or other hazards related to coastal processes, and that there are no feasible measures that could make the structures

suitable for habitation or use without the use of bluff or shoreline protective devices;

- (2) essential services to the site (e.g., utilities, roads) can no longer feasibly be maintained due to the coastal hazards listed above;
- (3) removal is required pursuant to LCP policies for sea level rise adaptation planning; or
- (4) the development requires new and/or augmented shoreline protective devices that conflict with relevant Coastal Act policies.

C. In addition, CDP No. 1-22-0319 does not permit encroachment onto public trust lands, and any future encroachment must be removed unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain. Any future encroachment would also be subject to the State Lands Commission's (or other designated trustee agency's) leasing approval.

11. State Lands Commission Review. PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT 1-22-0319, the applicant shall provide to the Executive Director a written determination from the State Lands Commission or other designated trustee agency that no State or public trust lands are involved in the development permitted by this CDP. If such written determination cannot be provided because State or public trust lands are or may be involved in the development permitted by CDP No. 1-22-0319, prior to issuance of the CDP, the Permittee shall submit an application to the Commission to amend this CDP to authorize development on State or public trust lands, at which time the Commission can consider whether encroachments onto State or public trust lands are permissible under the Coastal Act and, if so, whether additional conditions of approval are required. In addition, if State or public trust lands are or may be involved in the development authorized by CDP No. 1-22-0319, prior to issuance of this permit, the applicant shall provide to the Executive Director for review and approval evidence that (A) they have obtained all permits required by the State Lands Commission or other designated trustee agency; or (B) pending a final determination, an agreement has been made with the State Lands Commission or other designated trustee agency for the approved project as conditioned by the Commission to proceed without prejudice to that determination.

IV. Findings and Declarations

A. Project Description and Environmental Setting

The applicants, Brian and Angie Papstein, propose to merge three small residential lots (APNs 305-073-05; -04; and -058) into one approximately 0.21-acre lot and construct a 2,736-square-foot, two-story, 3-bedroom single-family residence with 270-square-foot second story deck and 520-square-foot asphalt driveway at 1255 King Salmon Ave.

The project site is currently undeveloped and vegetated with predominantly invasive Himalayan blackberry bushes and other upland shrubs and ruderal grasses and forbs. The project site is located in between developed parcels with existing residences to the north and south. The nearest tidal channel with connectivity to Humboldt Bay is located approximately 100 feet away from the nearest edge of the proposed development.

The subdivision of King Salmon is located on the shores of Humboldt Bay, south of Eureka, directly across from the Humboldt Bay entrance channel (Exhibit 1). Much of King Salmon consists of former tidelands that were partially filled during the mid-1900s and later divided, mostly into 25-foot-wide, 5,000-square-foot (or smaller) lots that were originally used for summer fishing cabins. The tidelands were filled in a manner that left interior tidal channels within the subdivision, and while many of the King Salmon lots are adjacent to the tidal channels, the subject property is not.

King Salmon is accessed by King Salmon Avenue and Buhne Drive, which flanks the northwest and western sides of the subdivision and separates the developed area from a dune area that borders Humboldt Bay. The King Salmon area is protected from wave action from the bay by a rock jetty and dune area to the west of Buhne Drive that is owned by the Humboldt Bay Harbor, Recreation, and Conservation District and which supports public access use. There is ample public access parking along Buhne Drive, including immediately adjacent to the subject property.

B. Standard of Review

The County of Humboldt has a certified Local Coastal Program (LCP). However, the project site is located entirely in the Commission's retained permit jurisdiction because it is located on filled tidelands. Therefore, as required by Public Resources Code section 30519(b) and 14 CCR section 13166(c), the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

C. Other Agency Approvals

The proposed project requires no other agency approvals other than a County building permit.

California State Lands Commission (State Lands)

State Lands has jurisdiction and management authority over public trust lands, including all ungranted tidelands, submerged lands, and the beds of navigable lakes and

waterways. State Lands also has review authority over public trust lands legislatively granted in trust to local governments. The project site is located on filled tidelands that may be subject to the public trust, however, the Applicant did not submit information indicating the public trust status of the project site. Coastal Act regulations define public trust lands as “all lands subject to the Common Law Public Trust for commerce, navigation, fisheries, recreation, and other public purposes.” Public trust lands include “tidelands, submerged lands, the beds of navigable lakes and rivers, and historic tidelands and submerged lands that are presently filled or reclaimed, and which were subject to the Public Trust at any time.”

State Lands is responsible for determining the landward location and extent of the State's sovereign fee ownership of public trust lands. However, the public trust boundary is generally defined by reference to the ordinary high water mark,¹ as measured by the mean high tide line²; these boundaries remain ambulatory, except where there has been fill or artificial accretion, a boundary line agreement, or court judgment that fixes the boundary. This project is located on a lot in an established residential neighborhood and behind the first line of development that is adjacent to the tidal channels connected to Humboldt Bay. Accordingly, if the boundary of the State's sovereign fee ownership of public trust lands is ambulatory with the ordinary high water mark in this area, the boundary cannot be located on the inland lot of the project site. However, the majority of the King Salmon area consists of former tidelands of Humboldt Bay that were partially filled during the mid-1900s. Much of the area was later subdivided and sold. Therefore, it is unclear whether the State maintains an ownership interest in the lands on which the proposed development is sited, and State Lands has indicated it requires additional time to review the history of land ownership in King Salmon to make a determination of the State's interest. To ensure that the Applicant has a sufficient legal property interest in the site to carry out the project consistent with the terms and conditions of this permit, the Commission attaches **Special Condition 11**. This condition requires that the Applicant submit a written determination from the State Lands Commission or other designated trustee agency that no State or public trust lands are involved in the development permitted by this CDP. If such written determination cannot be provided because State or public trust lands are or may be involved in the development, prior to issuance of this CDP, the Applicant shall submit an application to the Commission to amend this CDP to authorize development on State or public trust lands, at which time the Commission can consider whether encroachments onto State or public trust lands are permissible under the Coastal Act and, if so, whether additional conditions of approval are required.

¹ Civil Code, § 670

² Borax Consol. v. City of Los Angeles, 296 U.S. 10 (1935); Marks v. Whitney, 6 Cal.3d 251, 257-258 (1971).

D. Locating and Planning New Development

Section 30250(a) of the Coastal Act states that new development shall be located within or near existing developed areas able to accommodate it or in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. The intent of this policy is to channel development toward more urbanized areas where services are provided and potential impacts to resources are minimized.

The subject property is located in the King Salmon subdivision, which is a densely developed community that is planned and zoned for single family residential use and some commercial development. The community contains over one hundred developed residences and commercial businesses. The subject property is located along King Salmon Ave and Buhne Drive, where the majority of lots are developed with residential or commercial structures. The subject lot is planned and zoned for single-family residential uses. Most of the lots in the surrounding area have been developed with single-family homes of varying sizes and heights that display a variety of architectural styles.

The subject property is served by community water and sewer systems provided by the Humboldt County Community Services District. Thus, there are adequate services to accommodate the proposed new three-bedroom residence. Although the subject site is located in a flood hazard area, as discussed in Finding E below, the development has been conditioned to minimize flood hazards consistent with the requirements of Coastal Act section 30253. Furthermore, as discussed in the below findings, the project has been conditioned to protect visual resources, nearby environmentally sensitive habitat areas, and water quality.

Therefore, the Commission finds that as conditioned, the proposed development is consistent with Coastal Act section 30250(a), in that it is located in a developed area, has adequate water and sewer capability to accommodate it, and will not cause significant adverse effects, either individually or cumulatively, to coastal resources.

E. Geologic and Flood Hazards

Section 30253 of the Coastal Act states, in applicable part, as follows (emphasis added):

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...

Coastal Act section 30270 states:

The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise.

The proposed project is located in an area subject to high geologic and flood hazards that includes the potential for strong ground shaking, liquefaction, differential settlement, and flooding. Almost the entire King Salmon subdivision lies within the FEMA-mapped 100-year flood zone and is subject to flooding from extreme high tides and tsunamis. The frequency and severity of flood events at the site is expected to worsen with projected sea-level rise rates for the region.

Earthquakes and Seismic Hazards

Northwestern California is one of the most seismically active regions in the continental United States. The Humboldt County region occupies a complex geologic environment characterized by very high rates of active tectonic deformation and seismicity. According to the applicant's soil study, the subject site is approximately 2 miles north of the Little Salmon fault zone and 2 miles west of the Freshwater fault, both of which are considered active thrust faults. Thrust faults are low angle faults that build up considerable horizontal stress before they fail and can generate large seismic events. Although relatively infrequent, high-intensity ground shaking, liquefaction, and tsunamis are some of the seismic hazards with the potential to occur at the site.

To address seismic hazards, the applicant's consultant completed a soil study on the site to determine the types of materials present and recommendations for site development criteria for the proposed project. The resulting report (S.E.E Engineering, February 2, 2022, **Exhibit 6**) concludes that the project site is in a relatively stable area with respect to land sliding but is at risk of liquefaction in the event of a major earthquake. Liquefaction is defined as the sudden loss of strength and fluid behavior of unconsolidated materials. The damaging effects of strong ground shaking and liquefaction can in turn cause large displacements of the ground surface, including heaving, cracking and buckling, and differential settlement.

Certain sites are more susceptible than others to the secondary effects of strong ground shaking as a result of the character of the surface substrates and depth to groundwater. Due to the character of the surface substrates in the project area (gravelly-silty sand according to the S.E.E report), and the relatively shallow depths to groundwater, the site is shown on County hazard maps as being within an area of potential liquefaction (**Exhibit 2**). However, the report notes that liquefaction was not documented in the King Salmon area during the 1992 Petrolia earthquake (magnitude 7.1) and that liquefaction risk on the site is further reduced by the relatively stable nature of the soils (the project site is mapped as "O-Relatively Stable" under Humboldt County's soil mapping layer).

The soil study therefore concludes that the project can be developed as proposed. To mitigate potential seismic and liquefaction risks, the S.E.E report provides recommendations for the new development related to foundation design and redirection of surface drainage. The report also recommends adherence to detailed seismic standards consistent with the California Building Code guidelines for the most seismically active areas. To ensure that the applicant develops the project in a manner that minimizes risk consistent with the engineering recommendations, the Commission attaches **Special Condition 1** requiring that all final design and construction plans, including site preparation, foundation design, and drainage plans, be consistent with the recommendations in the applicant's engineering report.

Because the proposed project will comply with California Building Code and local building codes, which have been designed to allow structures to withstand strong seismic ground shaking, and because the project will comply with the site-specific geologic recommendations for foundation design and for minimizing risks associated with earthquakes, the development is designed to assure stability and structural integrity consistent with the requirements of section 30253(b).

Flood Hazards

Section 30270 of the Coastal Act requires the Commission to take into account the effects of sea level rise (SLR) in coastal resource planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of SLR. Sections 30253 and 30250 provide standards for safety of new development and require new development to occur in areas able to accommodate it, respectively, while sections 30235 and 30236 place limits around approvable protective devices. Therefore, to be consistent with the Chapter 3 policies of the Coastal Act, proposed development must be sited, designed, and conditioned in such a way that minimizes SLR hazards and considers the impact of the development upon coastal resources over its full anticipated life, avoiding and mitigating those impacts as appropriate.

The risk of flooding is a significant natural hazard affecting proposed development within King Salmon. Nearly the entire King Salmon subdivision lies within the FEMA-mapped 100-year flood zone and is subject to flooding from extreme high tides and tsunamis. Flooding currently occurs as a result of flooding from the bay and rising groundwater levels. The project site is one a few King Salmon properties that is not located in the FEMA-mapped 100-year flood zone of Humboldt Bay (Exhibit 2).³ The 100-year Base Flood Elevation (BFE) for the King Salmon area established by FEMA's National Flood Insurance Program is +10 feet NAVD 88. The property, which was surveyed in 2022, gradually increases from 10.24 feet NAVD 88 at the southeast corner to 14.04 feet at the northwest corner. Thus, the property ranges from just outside of the 10-foot flood area at the lowest corner, to four feet above BFE at the highest northwest corner. The proposed residence will be located towards the northwest corner at a

³ Flood Insurance Rate Map Number 06023C1005G, effective on 6/21/2017

finished elevation of 13 feet NAVD 88, which is above the current flood zone BFE of 10 feet.

The design of the house incorporates certain measures to reduce flood hazard risks. The habitable portions of the structure will be located on the second floor which is positioned at an elevation (24 feet NAVD 88) above the estimated maximum flood elevation during the life of the structure taking into account sea level rise (as discussed further below). The first floor will be limited to a garage, laundry room, unfinished storage space, half bath and entryway. The first-floor walls will be constructed with flood vents in the foundation and walls to aid in the discharge of flood waters from within the structure. Finally, to minimize the chances that hazardous materials enter the water during high tide storm and flooding events, the applicant is proposing elevated storage cabinets within the first floor to contain storage for all paints and cleaners, as well as all mechanical and utility installations. Similarly, the applicant proposes that all mechanical and utility installations such as electrical panels, on-demand hot water heaters, and force air furnaces be attached to the first-floor walls. **Special Condition No. 1-B** requires that these proposed flood risk minimization measures be incorporated into final house plans to be submitted for the Executive Director's review and approval.

While the proposed development is sited to be above the current FEMA-mapped 100-year flood zone, extreme high tide events in conjunction with future sea level rise will increase the vulnerability of the subject site and the entire King Salmon community. King Salmon is among the lowest-lying and southernmost residential communities on Humboldt Bay and one of the most vulnerable areas to sea level rise in the entire United States west coast.⁴

Sea level rise will have dramatic impacts on California's coast in the coming decades and is already impacting the coast today. In the past century, the average global temperature has increased by about 0.8°C (1.4°F), and as a result global sea levels have increased by 7 to 8 inches (17 to 21 cm). In addition, SLR has been accelerating in recent decades, largely due to greenhouse gas emissions, with the global rate of SLR tripling since 1971.⁵ There is strong scientific consensus that SLR will continue over the coming millennia regardless of future human actions, but the exact rate and amount will depend on the amount of future greenhouse gas emissions as well as the exact contribution from sources such as the Antarctic and Greenland ice sheets, which are areas of continuing research. While planning coastal development under this uncertainty presents challenges, it is widely documented that underestimating SLR

⁴ Russell and Griggs 2012b; J. K. Anderson, Laird, and Patton 2017; Laird 2018c; OPC Working Committee 2018

⁵ IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.

could result in costly damages and adverse outcomes to coastal resources. Planning and development decisions on the California coast must, therefore, be appropriately precautionary and made with the full understanding that SLR will change coastal landscapes and hazard conditions. Not only will siting and design decisions regarding proposed coastal development influence the future safety of the development and overall resiliency of the California coast, but such decisions will also affect the way that coastal resources protected under the Coastal Act respond to changing sea levels over time.

Currently, the best available science on SLR projections in California is provided in the State of California Sea-Level Rise Guidance (OPC 2018)⁶ and is reflected in the Coastal Commission Sea Level Rise Policy Guidance (CCC 2018).⁷ These documents present probabilistic SLR projections as well as an extreme “H++” scenario for twelve locations (tide gauges) along the California coast, and provide recommendations for which projections to use in various planning contexts based on level of risk aversion and project type. The medium-high risk aversion scenario, which has an estimated 0.5% chance of being exceeded, should be analyzed for projects with greater consequences and/or a lower capacity to adapt, like residential and commercial development.

With sea level rise, shoreline development will experience increasingly hazardous conditions, including worsening storm flooding, inundation, and shoreline and bluff erosion. On a relatively flat shoreline, even small amounts of SLR can cause large losses of beach width. For example, for a shoreline with a slope of 40:1, a simple geometric model indicates that every foot of SLR will result in a 40-foot landward movement of the ocean/beach interface, resulting in significant loss of beach habitat and recreational space as well as representing a change in the location of public tidelands subject to the public trust doctrine. This change could also expose previously protected backshore development to increased tidal/wave action and flooding, and those areas that are already exposed to such conditions will be exposed more frequently and with greater severity. SLR will also cause coastal groundwater tables to rise in some locations, potentially emerging from the ground to cause flooding, as well as impacts such as damage to development and infrastructure, saltwater intrusion into aquifers, and changing liquefaction risks. Importantly, rising groundwater could constrain the types of adaptation strategies that can be protective; for example, while shoreline armoring may be effective to address overland flooding and inundation from SLR, it may not protect against groundwater rise impacts, depending on the characteristics of the site.

⁶ Ocean Protection Council (OPC). 2018. State of California Sea-Level Rise Guidance: 2018 Update. https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf.

⁷ Coastal Commission (CCC). 2018. California Coastal Commission Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits.

These changing hazard conditions may also alter the impacts of development upon coastal resources. In particular, coastal resources such as beaches and wetlands could disappear if they are squeezed between rising sea levels and a fixed line of development on the shoreline. Such losses will impact public access, recreation, public views, and other coastal resources – all of which are protected under Chapter 3 of the Coastal Act. Further, loss of these public resources could have significant implications from an environmental justice standpoint, since coastal open spaces and habitats are an opportunity for all to visit and enjoy the California coast and would disproportionately burden those who cannot afford to live near the coast.

The State SLR Guidance provides SLR projections for 12 tide gauges in the state and recommends using the projections for the gauge closest to the project site. In this case, the North Spit tide gauge at Humboldt Bay is the applicable gauge. The amount of SLR projected at the North Spit tide gauge for the year 2100 (i.e., through the projected “expected lifespan” of the new residence) ranges from 4.1 feet (under the “low-risk aversion” scenario) to 7.6 feet (under the “medium-high risk aversion” scenario) to 10.9 feet (under the “extreme risk aversion” scenario).⁸

The current mean higher high water (MHHW) elevation at the North Spit tide gauge, which is the daily high tide, is approximately 6.5 feet NAVD 88, and the mean annual maximum water (MAMW) elevation at the North Spit tide gauge is approximately 8.8 feet NAVD 88.⁹ Future water levels in the year 2100 under the medium-high risk scenario cited above (adding 7.6 feet of SLR) are projected to range from 14.1 feet on a daily basis (MHHW) to 16.4 feet during the highest tides of the year. Consideration of the medium-high risk scenario (+7.6 ft.) is appropriate in this case, because the residence as designed has a relatively low capacity to adapt to risks associated with tidal flooding (e.g., erosion and flood hazards), and the consequences of the development being subjected to tidal flooding impacts in the future would be significant (e.g., structural damage to residence). Consideration of the medium-high risk scenario also is consistent with the State SLR Guidance, which recommends a precautionary approach to SLR adaptation planning. Thus, under this scenario, around 2100 portions of the property at and below 14.1 feet may be vulnerable to future tidal flooding on a

⁸ The OPC projections are based on different scenarios related to future emissions and concentrations of greenhouse gases, aerosols, and other climate drivers. As recommended by the OPC guidance, for the year 2100, the “low risk aversion” scenario is derived from taking the upper range of the 66% probability range for “RCP-8.5,” which is the “Representative Concentration Pathway” that assumes there will be no significant efforts to reduce emissions globally. The “medium-high risk aversion” projection is derived from the upper range of the 0.5% probability range for RCP-8.5. The “extreme risk aversion” projection is based on presumed ice sheet loss in Greenland and the Antarctic.

⁹ Northern Hydrology and Engineering 2014. MHHW and MAMW are two tidal base elevations that have been used in various regional SLR planning documents including the SLR Vulnerability Assessment for the communities of King Salmon, Fields Landing, and Fairhaven (Trinity Associates 2018) to assess community vulnerability and to depict projected daily and annual high tides resulting from tidal inundation via the King Salmon canals.

daily basis and portions of the property under 16.4 feet may be vulnerable to tidal flooding multiple times annually.

As previously discussed, the property ranges from an elevation of 10.4 feet at its lowest point to 14 feet at the highest point. The proposed new residence will be constructed on a relatively flat portion of the property approximately 13 feet in elevation and over 100 feet from the canal channel. However, the entire property is below 14.1 feet and, assuming that by the year 2100 sea levels will rise within the range of projected rates discussed above, all areas of the property and the first floor of the proposed residence will be subjected to regular tidal flooding. In addition, according to a local Vulnerability Assessment Report (Laird, 2018) the only point of entry into the community, King Salmon Road, will become compromised when water levels reach 11.0 feet.

To evaluate the consistency of the proposed residence with section 30253, the Commission must consider whether the development as proposed minimizes flood risks and whether it will require a shoreline protective device now or in the future. The primary way to minimize flood risks from tidal waters is to site the habitable portions of the proposed structures above maximum flood elevations. Maximum flood risks are often calculated by analyzing a combined event of projected maximum relative sea level rise over the life the structure, high tide, a 100-year storm surge, and a 100-year wave event. This type of analysis has been considered in previous reviews by the Commission of residential development in King Salmon (e.g., see CDP 1-14-0160, Sloper and 1-18-1052, Brown).¹⁰

In this case, however, a full sea level rise and wave uprush study is not critical to evaluate flood risks for several reasons. First, the property is located at one of the highest elevations in the subdivision and is primarily outside of the FEMA-mapped 100-year flood zone. Second, ocean waves are not expected to significantly impact the project site due to the combined effects of the existing rock groins at King Salmon Beach (approximately 11.5 feet) and small dune field (ranging from 14.8 to 19.7 feet), that together provide substantial protection from deep water wave propagation and associated shoreline impacts under current conditions. Finally, as discussed above, the applicant proposes to site all habitable portions of the residence on the upper floor of the new residence and to incorporate flood protection measures for the first floor. The applicant's design standards address the likely future sea level rise scenario over the expected life of the development. As previously stated, the proposed building site is 13 feet above sea level (NAVD 88), which is two feet above BFE, and the finished floor elevation of the proposed second story is 11 feet above ground surface, resulting in an elevation of 24 feet above sea level. The finished floor elevation of the habitable floor will be 6.9 feet above the projected MAMW for 2100 under the medium-high risk scenario. Even under the extreme risk scenario, with up to 10.9 feet of SLR in the year 2100, the projected MAMW of approximately 19.7 feet would be several feet below the

¹⁰ These reports are accessible from the Commission's website: see <https://documents.coastal.ca.gov/reports/2015/12/w15a-12-2015.pdf> and <https://documents.coastal.ca.gov/reports/2019/9/Th9a/th9a-9-2019-report.pdf>.

habitable second story. The most significant risks from future SLR are not expected to impact the proposed residential development until closer to the end of the structure's economic life, and the new development is likely to be safe from coastal hazards for the next 30-40 years.

Siting all habitable portions of the proposed residence on the upper floor will minimize risks to residents in the event of a flood. Residents would be less likely to be occupying the non-habitable spaces in the event of a sudden flood and would therefore be less at risk of immediate danger. In addition, in the aftermath of a flood, residents may be able to continue to shelter in the upper floor even if the lower floor becomes unusable. The ground floor of the new residence is planned for use as a garage, storage space, laundry, and a half bathroom, and is proposed to be used only for non-habitable uses. These proposed uses of the lower floor can be considered to be non-habitable uses. Zoning ordinances often exclude these kinds of uses under definitions of habitable spaces or rooms. For example, section 313-153 of Humboldt County's certified coastal zoning code defines "habitable room" as follows:

Any room in a main or accessory building except a bathroom, water closet, hall storage space, utility room, foyer, communicating hall, pantry, laundry, or unfinished attic, basement or cellar.

The Commission finds that limiting the use of the lower floor to the proposed specific uses and confining habitable spaces to the upper floor would minimize risks to personal safety during flood events. However, portions of the lower floor, including the large unconditioned space, storage areas, and the undefined space between the stairway and the laundry and bathroom would be feasible to physically convert to a bedroom, living room, or other habitable rooms.

To ensure that future residents of the new house do not convert the lower floor spaces of the addition to bedrooms, dens, or other habitable spaces that would create greater safety risks or risks of greater property damage, the Commission attaches **Special Condition No. 2**. The special condition limits use of the lower floor to the proposed uses unless the owner obtains a permit amendment from the Commission to allow other uses.

The Commission also notes that section 30610(a) of the Coastal Act exempts certain improvements to existing single-family residential structures from coastal development permit requirements. Pursuant to this exemption, once a house has been constructed, certain improvements that the applicant might propose in the future are normally exempt from the need for a permit or permit amendment. Depending on the specific improvements proposed, building additions and remodeling of the residence could increase flood hazard risks. Section 30610(a) requires the Commission to specify by regulation those classes of development which involve a risk of adverse environmental effects and require that a permit be obtained for such improvements. Pursuant to section 30610(a) of the Coastal Act, the Commission adopted section 13250 of Title 14 of the California Code of Regulations (CCR). Section 13250(b)(6) specifically authorizes

the Commission to require a permit for improvements to existing single-family residences that could involve a risk of adverse environmental effect by indicating in the development permit issued for the original structure that any future improvements would require a development permit. As noted above, improvements to the lower floor of the approved addition that involve adding habitable uses could increase the danger of harm to residents and property damage from flooding in a manner inconsistent with the requirements of section 30253 of the Coastal Act that risks of flood hazard of development be minimized. Therefore, pursuant to section 13250 (b)(6) of Title 14 of the CCR, the Commission attaches **Special Condition 4** which requires that all future improvements to the development authorized by this permit that might otherwise be exempt from CDP requirements requires an amendment or new CDP. This condition will allow future development to be reviewed by the Commission to ensure that future improvements to the development will not increase flood hazard risks. **Special Condition 5** also requires that the applicants record and execute a deed restriction approved by the Executive Director against the property that imposes the special conditions of this permit as covenants, conditions, and restrictions on the use and enjoyment of the property. Special Condition 5 will also help assure that future owners are aware of these CDP requirements applicable to all future development.

In addition, because the applicant is electing to develop the site in an inherently hazardous area, the Commission attaches **Special Condition 3**, which requires the applicant to assume the risks of coastal hazards of the property and waive any claim of liability on the part of the Commission. Through this condition the applicant is notified that the Commission is not liable for damage as a result of approving the permit for development. The condition also requires the applicant to indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand hazards.

The project does not include a proposed shoreline protective device and, as new development, the project is not entitled to shoreline protection now or in the future.¹¹ If the project required a shoreline protective device to be safe from hazards, due to the many adverse impacts shoreline protective devices have on coastal resources, the project would not be consistent with several Coastal Act policies, including Section 30253(b). Such armoring, by its very nature, is almost always also inconsistent with Coastal Act policies relating to coastal hazards, bluff alteration, visual resources, and public access. Coastal Act limitations on armoring are necessary because shoreline armoring can and often does have a variety of significant negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline and beach dynamics on and off-site, ultimately resulting in the loss of beaches and adverse impacts to coastal vistas and areas for recreation, which are all fundamental coastal resources. Therefore, the Commission rarely approves construction of shoreline protective devices for new development

¹¹ Section 30235 of the Coastal Act requires approval of shoreline protective devices only when necessary to protect an "existing" structure or coastal-dependent use in danger of erosion, neither of which applies to this residential project.

projects, due to the articulated impacts. The applicant has not proposed to construct a shoreline protection device and no shoreline protection would be authorized by this permit; however, the applicant or a successor-in-interest could request a shoreline protection device at some point in the future. Although the project site is not a bayfront site and it appears the project will be safe from coastal hazards in the short-term, due to the flooding risks associated with siting development in this area of Humboldt Bay over the long-term and projections that the area between the project site and bay waters will narrow with sea level rise, it must be clear that, as new development, the entire development approved by this permit is not entitled to a shoreline protection device now or in the future. The applicant bears the risk of developing in this hazardous area with the knowledge that a shoreline protective device is not consistent with the Coastal Act and would not likely be approved if requested at some point in the future. Accordingly, in addition to **Special Condition 3**, requiring the applicant to assume the risks of developing in an area subject to coastal hazards, the Commission imposes **Special Condition 10**, which prohibits future shoreline protective devices for the approved development and requires the applicant to waive any rights to shoreline protective devices that may exist under applicable law

It is also important to ensure that any risks that lead to the site or development becoming unsafe, and/or that lead to access to it (including roads or utilities) not being available, are also internalized by the Applicant and that such circumstances be codified as requiring removal and/or relocation. Because the development is projected to be regularly impacted by tidal flooding and may become inaccessible during its expected lifetime, **Special Condition 10** requires the landowner to remove the development if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above, essential services to the site can no longer feasibly be maintained due to coastal hazards, or if the development requires new or augmented shoreline protection inconsistent with the Coastal Act.

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." The Commission has a responsibility to implement the Coastal Act in a manner that protects public trust resources and public trust uses both now and in the future.

As discussed above, future sea level rise will cause the landward migration of the intersection of tidal areas with the shore and, thus, the tidelands and submerged lands that are public trust resources. If development is protected by shoreline protection or other fixed development that prevents the landward migration of the shoreline that would have otherwise occurred, sea level rise will in many cases cause the narrowing

and eventual loss of beaches, dunes and other shoreline habitats, as well as the loss of offshore recreational areas. This narrowing, often referred to as “coastal squeeze,” can lead to the loss of trust resources in this manner. To the extent that shoreline armoring contributes to erosion and blockage of the natural inland migration of the tidelands and shoreline, and thus results in the loss of public access to tidelands and submerged lands, their construction is inconsistent with the State’s obligation to protect the public’s right to access these areas. In addition, the Commission must consider impacts to the public trust that are caused by upland or upstream development outside the trust boundary, including as a result of sea level rise.¹²

Moreover, private residential uses are not public trust uses. The public trust boundary is an ambulatory line in most locations, and as erosion occurs or sea levels rise, the public trust boundary will move inland as the mean high tide line moves inland. As the shoreline migrates inland, structures may become located on public trust lands, occupying land that would otherwise be available for public access, ecosystem services and other coastal resource benefits held in trust for the public. This permit does not authorize development on public trust lands; if the public trust boundary migrates landward to encompass the development approved under this CDP, the development may need to be removed pursuant to **Special Condition 10**, unless the Commission determines that the encroachment is legally permissible.

Finally, as discussed in Finding C, the project is located on former tidelands that were filled and may already be subject to the public trust. Accordingly, **Special Condition 11** requires the applicant to obtain a determination from the State Lands Commission or other designated trustee agency of the public trust status of the project site prior to issuance of the CDP. If such written determination cannot be provided because State or public trust lands are or may be involved in the development, prior to issuance of this CDP, the Applicant shall submit an application to the Commission to amend this CDP to authorize development on State or public trust lands, at which time the Commission can consider whether encroachments onto State or public trust lands are permissible under the Coastal Act and, if so, whether additional conditions of approval are required.

Tsunami Hazards

In addition to the risk of flood hazards associated with extreme high tides and future sea level rise, the subject property, along with many others around Humboldt Bay, is shown on emergency planning maps published in 2009 and updated in 2021 by the California Emergency Management Agency, California Geologic Survey, and University of Southern California as being within the zone of potential inundation by a tsunami. If the region were to suffer a major earthquake along the Cascadia Subduction Zone, a local tsunami could hit the Humboldt Bay shoreline within minutes. Maximum tsunami inundation levels are believed to be at least 30 feet above mean sea level at this

¹² The California Court of Appeals describes this distinction as follows: “As a consequence, the dispositive issue is not the source of the activity, or whether the water that is diverted or extracted is itself subject to the public trust, but whether the challenged activity allegedly harms a navigable waterway.” *Env’tl. Law Found. et al. v. State Water Res. Control Bd.*, 26 Cal.App.5th 844 (2018).

location. The average ground elevation of the site is 10-14 feet above Mean Sea Level. Thus, the site could be affected by a tsunami surge rising 20 feet above ground level, and it is not possible to site all of the residence out of the tsunami inundation area where it would avoid potential damage from all tsunamis.

Although it is not feasible to site the residence out of harm's way of all tsunamis, risks to life can be minimized through design measures. First, as discussed previously, the first-floor walls will be with flood vents in the foundation and walls to aid in the discharge of flood waters from within the structure. To minimize the chances that hazardous materials enter the water during high tide storm and flooding events, the applicant is proposing elevated storage cabinets within the first floor to contain storage for all paints and cleaners, as well as all mechanical and utility installations. Similarly, the applicant proposes that all mechanical and utility installations such as electrical panels, on-demand hot water heaters, and force air furnaces be attached to the first-floor walls. The purpose of the flood vent design is to allow waves and water moving at high velocity to pass through the first floor without causing collapse, displacement, or other structural damage to the elevated building or the supporting foundations system. As discussed above, **Special Condition 1-B** requires that these proposed flood risk minimization measures be incorporated into final house plans to be submitted for the Executive Director's review and approval.

Second, the National Weather Service, in combination with other agencies, has developed a community tsunami readiness program and tsunami warning and evacuation procedures have been established for the King Salmon community. A tsunami siren has been installed, there is a clearly marked tsunami evacuation route and a sheltering location has been established on higher ground on the adjoining PG&E power plant site. Evacuation drills have also been conducted in the area.

Furthermore, if the applicant and future landowners receive notification of the flood risks associated with the property, then the applicant and future landowners of the property can decide whether to implement development on the site despite the risks. Therefore, as discussed previously, the Commission attaches **Special Condition Nos. 3 and 5**. **Special Condition 3** requires the landowner to assume the risks of flooding hazards to the property and to waive any claim of liability on the part of the Commission. To ensure that all future owners of the property are aware of the flood hazard present at the site, the Commission's immunity from liability, and the indemnity afforded the Commission, **Special Condition 5** requires recordation of a deed restriction that imposes the special conditions of the permit as covenants, conditions, and restrictions on the use of the property.

Therefore, the Commission finds that there are no further feasible mitigation measures available to minimize the flood risk from tsunami wave run-up at the site.

Conclusion

As discussed above, the project as conditioned will not eliminate all risk to life and property from hazards. However, all feasible mitigation measures necessary to minimize

the flood and geologic risks have been incorporated into the project as conditioned, consistent with section 30253(a). In addition, the development is designed to assure stability and structural integrity and will not destroy the site or require the construction of a shoreline protective device, consistent with the requirements of section 30253(b). Furthermore, the Commission finds that the proposed project, as conditioned, takes into account the effects of sea level rise consistent with section 30270 of the Coastal Act.

F. Protection of Coastal Waters

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 addresses the protection of coastal water quality and marine resources in conjunction with development and other land use activities. Section 30231 states:

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

The site is relatively flat, and the project will involve only minimal grading (<50 cubic yards). There are no channels or watercourses on the property, and a neighboring property to the south is located in between the subject property and the nearest canal connected to Humboldt Bay, approximately 100 feet away from the proposed development. The proposed development includes 2,402-square-foot of new impervious surfaces as part of the development footprint, which includes the new residence, garage, and paved driveway. The property, once merged, will be approximately 6,900 square feet. While almost 35% of the lot will be covered in impervious surfaces, there will still be sufficient impermeable area on the subject property to allow for retention and treatment of stormwater onsite. The house will be located as far from the nearest canal channel as possible and the area in between the house and the canal will remain as a pervious grassy area. Drainage will be directed from the roof and driveway areas towards the permeable portions of the property. Given the development's distance from the

waters of Humboldt Bay and the permeable areas between the residential structures and the water, there is sufficient area to allow for onsite infiltration of stormwater runoff.

The applicant has proposed a number of best management practices (BMPs) to employ during construction to ensure that water quality will be adequately protected. These measures are included as **Special Condition 7**. This condition requires in part the proper disposal of construction-related debris, the covering of stockpiles whenever there is a potential for rain to prevent polluted water runoff from the site, and the use of other appropriate construction-related BMPs for erosion and runoff control.

Therefore, the Commission finds that the proposed development, as conditioned, is consistent with sections 30230 and 30231 of the Coastal Act, because the project as conditioned will protect marine resources, water quality, and the biological productivity of coastal waters and wetlands.

G. Visual Resources

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. This section requires, in applicable part, that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, and to be visually compatible with the character of surrounding areas.

The property is not within a designated Highly Scenic Area. The project site is located in a densely developed residential neighborhood. Minimal public views of Humboldt Bay are afforded from surrounding public roads through the property but instead are partially blocked by existing vegetation consisting of blackberry bushes and other shrubs. The property is bordered on two of its sides by other residential development that block views from King Salmon Avenue to the Bay. Expansive and unobstructed public views of Humboldt Bay and coastal dunes are available for motorists and pedestrians from Buhne Drive seaward of the subject site, and the project will have no effect on these existing public views. In addition, public parking is available along Buhne Drive for access to the dunes and shoreline and viewing the Bay. Thus, the proposed development will have no significant adverse impact on views to or along the shoreline as seen from publicly accessible vantage points.

As discussed above, the building site is located on level ground, no major vegetation removal is proposed that would result in significant natural landform alteration, and minimal grading will occur to level the middle of the site to 13 feet, which is below the highest elevation of 14.04 feet on the property.

With regard to the compatibility of the proposed dwelling with the character of the surrounding area, the proposed two-story residence will be a maximum of 26 feet tall

and will consist of fiber cement siding painted either white/gray or light blue, wood decking, aluminum gutters and downspouts, and composition shingle roofing. It will be of similar size, scale, and architectural style to some of the other newer development in the neighborhood. The character of the King Salmon area is largely defined by its bay-shore setting and predominantly single-family residential and commercial composition. The community consists of a diversity of architectural styles and sizes with structures ranging from small, older cabins and manufactured homes to larger two- and even a few three-story homes.

Although the development pattern is very compact in the King Salmon area, the overall nighttime character of the area in terms of outside illumination is largely rural in nature, with very little exterior lighting evident. As a result, with the exception of nominally shielded street lighting along Buhne Drive and security lighting within the parking areas of commercial properties in the community, King Salmon has fewer glares from external nighttime lighting than many communities of similar size and density. Accordingly, to protect the character of the area as well as prevent the cumulative impacts of glare to the visual resources of the area, the Commission attaches **Special Condition 9** which requires that all exterior lighting associated with the proposed development be low-wattage and downcast shielded such that no glare is directed beyond the bounds of the property or into nearby coastal waters.

In summary, the proposed development as conditioned is consistent with section 30251, as the development will not adversely affect views to or along the coast, result in major landform alteration, or be incompatible with the character of the surrounding area.

H. 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.

Coastal Act section 30211 states:

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

Coastal Act section 30212(a) states, in part:

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.

Coastal Act section 30214 states in part:

(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:

- (1) Topographic and geologic site characteristics.
- (2) The capacity of the site to sustain use and at what level of intensity.
- (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.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution...

In applying these sections, the Commission considers whether public access is necessary to avoid or offset a project's adverse impact on existing or potential access.

The proposed project will not adversely affect public access. The subject property does not have shoreline frontage because it does not front onto a canal and it is across the road (Buhne Drive) from the dune and beach area. Public parking is and will continue to be available on both sides of Buhne Drive, and the parking spaces adjacent to the subject property will not be impacted by the proposed development, as the new driveway will be located off of King Salmon Avenue where public parking currently does not exist. There is no evidence of public use of the subject property for public access, no evidence of trails on the property, and no indication that the site has been used for public access purposes in the past. The proposed development will not increase the demand for public access to the shoreline, as it involves construction of one new single-family residence. And, as discussed previously in Findings C and E, **Special Condition 11** requires the Applicant to submit a written determination from the State Lands Commission or other designated trustee agency that no State or public trust lands are involved in the development permitted by this CDP. If such a determination cannot be provided because State or public trust lands are or may be involved in the development, prior to issuance of this CDP, **Special Condition 11** would require the Applicant to submit an amendment application to the Commission to authorize development on

State or public trust lands, at which time the Commission could consider whether encroachments onto State or public trust lands are permissible under the Coastal Act and, if so, whether additional conditions of approval are required. For all of these reasons, the Commission finds that the proposed project, which does not include provision of public access, is nevertheless consistent with the public access policies of the Coastal Act.

I. Environmentally Sensitive Habitat Areas

Section 30240 of the Coastal Act states:

- a. Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- b. Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The subject property does not contain any known environmentally sensitive habitat. However, coastal dune habitat exists west of Buhne Drive, approximately 750 feet west of the subject property. Coastal dune habitats in the North Coast region in general often support populations of rare, threatened, and endangered plant species, including beach layia (*Layia carnosa*), Humboldt Bay wallflower (*Erysimum menziesii* ssp. *eurekaense*), pink sand verbena (*Abronia umbellata* var. *breviflora*), dark-eyed gilia (*Gilia millefoliata*), and other rare species. Both the Commission and the County in past permitting actions for projects in the region have considered these rare plant habitat areas to be ESHA under the Coastal Act and certified LCP. Additionally, the Commission has considered coastal dune habitat in and of itself in the absence of rare species to be ESHA, since the habitat in general is both rare and especially valuable because of its special nature and role in an ecosystem and could be easily disturbed or degraded by human activities and developments.

In addition to nearby coastal dunes, substantial acreage of diked freshwater wetlands is located ~100 feet east of the project site adjacent to King Salmon Avenue.

Although no landscaping has been proposed as part of the project, the Commission finds that the coastal dunes and freshwater wetlands located in the vicinity of the proposed development do constitute ESHA, and the ESHA could be adversely affected if nonnative, invasive plant species were introduced in landscaping at the subject site. If any of the proposed landscaping were to include introduced invasive exotic plant species, the weedy landscaping plants could colonize (e.g., via wind or wildlife dispersal) the nearby dune or wetland ESHA over time and displace native vegetation, thereby disrupting the functions and values of the ESHA. The Commission attaches **Special Condition 8** to ensure that only native and/or non-invasive plant species are planted on the subject property. As conditioned, the proposed project will ensure that

the ESHA near the site is not significantly degraded by any future landscaping that would contain invasive exotic species.

With the mitigation measures discussed above, which are designed to minimize any potential impacts to the adjacent ESHA, the project as conditioned will not significantly degrade adjacent ESHA and will be compatible with the continuance of the habitat area. Therefore, the Commission finds that the project as conditioned is consistent with section 30240(b) of the Coastal Act.

J. Protection of Archaeological Resources

Coastal Act section 30244 states as follows:

Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The project area lies within the traditional territory of the Wiyot tribe. At the time that Euro-Americans first made contact in this region, the Wiyot lived almost exclusively in villages along the protected shores of Humboldt Bay and near the mouths of the Eel and Mad Rivers. Three federally recognized Tribes in the region – the Wiyot Tribe, the Blue Lake Rancheria, and the Bear River Band of the Rohnerville Rancheria – include citizens of Wiyot ancestry that are culturally affiliated with the greater Humboldt Bay region Wiyot ethnographic area as mapped by the Tribes.

After consulting with the Native American Heritage Commission (NAHC) to obtain the current tribal consultation list for the proposed development site, Commission staff referred the project to the NAHC-recommended tribal contacts and other tribal representatives with known interest in the project area region.¹³ Commission staff referred the project to the Tribal Historic Preservation Officers (THPO) for the Wiyot area Tribes listed above and other local Tribes. Tribal representatives from the Blue Lake Rancheria responded and identified no concerns related to the proposed development's possible effects on archaeological resources. However, representatives from the Blue Lake Rancheria recommended that the Commission include its "standard inadvertent archaeological discovery language" in the event that previously unrecorded archaeological resources are unearthed during construction. Therefore, the Commission attaches this reasonable mitigation measure as **Special Condition 6**.

Special Condition 6 requires that if an area of cultural deposits or human remains is discovered during the course of the project, all construction must cease and a qualified cultural resource specialist, in consultation with, at a minimum, the THPOs of the Wiyot

¹³ Commission staff referred to project (via email) to tribal representatives from the Bear River Band of the Rohnerville Rancheria, Big Lagoon Rancheria, Trinidad Rancheria, Wiyot Tribe, and Hoopa Valley Tribe on June 7, 2022.

Tribe, the Bear River Band of Rohnerville Rancheria, and the Blue Lake Rancheria, must analyze the significance of the find. To recommence construction following discovery of cultural deposits or human remains, the Permittee is required to submit a supplementary archaeological plan for the review and approval of the Executive Director and obtain a permit amendment for changes the Executive Director determines are not de minimis in nature and scope.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act section 30244, as the development includes reasonable mitigation measures to ensure that construction activities will not result in significant adverse impacts to archaeological resources.

K. California Environmental Quality Act (CEQA)

Section 13096 of the Commission's regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable requirement of the CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The County of Humboldt, as the lead agency, determined the project to be categorically exempt from environmental review pursuant to sections 15301 of CEQA guidelines (Existing Facilities) and 15061(b)(3) (Common Sense Exemption). In addition, the Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA (14 CCR § 15251(c).)

The Commission incorporates its findings on Coastal Act consistency as if set forth in full. No public comments regarding potential significant adverse environmental effects of the project were received by the Commission prior to preparation of the staff report. As discussed above, the project has been conditioned to be consistent with the policies of the Coastal Act. As specifically discussed in these above findings, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts, either individually or cumulatively, which the activity may have on the environment. Therefore, the Commission finds that the proposed development, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

1-22-0319 (Papstein)

APPENDIX A

Application File for CDP Application No. 1-22-0319

County of Humboldt Local Coastal Program (Humboldt Bay Area Plan & Coastal Zoning Regulations)

Humboldt County: Humboldt Bay Area Plan Communities at Risk Sea Level Rise Vulnerability Assessment (Laird, 2018).