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STAFF REPORT: MATERIAL AMENDMENT

Amendment Application No.: NCR-76-CC-720-A1

Applicant: Stephen Gieder

Agent: Erica Grey

Location: 3224 Patricks Point Drive, approximately three miles north of Trinidad, Humboldt County (APN 517-051-007).

Description of Previously Approved Project: Construct a two-story, single-family residence on a bluff-top parcel.

Proposed Amendment: Remove and replace a permitted 1,780-square-foot deck with a new 1,950-square-foot deck.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The applicant proposes to remove and replace an existing deck on the oceanfront side of a bluff-top parcel north of Trinidad in Humboldt County. The proposed deck would extend approximately six to fourteen feet closer to the bluff edge.

The primary Coastal Act issue raised by the application is geologic hazards. The original permit for the residence included a special condition requiring all structures to be setback at least 50 feet from the bluff face with no disturbance of the unstable bluff slope. The proposed replacement deck would not disturb the bluff slope, but would encroach up to 15 feet into the 50-foot bluff setback. The reduced setback is proposed only for the deck development and would not affect any of the other development subject to the 50-foot setback. A civil engineer and engineering geologist prepared a coastal bluff stability assessment for the proposed deck replacement project that concluded, based on an analysis of historic aerial photos and a site inspection, that bluff retreat is not expected to threaten the deck for its expected life. The geotechnical investigation did not include a quantitative slope stability analysis, but the applicant has proposed to annually monitor the distance of the deck to the bluff edge, and to obtain a slope stability analysis from a qualified expert when the bluff erodes to within 20 feet of the deck. If the analysis shows at that time that the approved deck is jeopardized, the applicant proposes to remove the deck including all supporting footings and perimeter foundations. The applicant also proposes to not at any time in the future armor the bluff to protect the new deck structure.

To ensure that the proposed amended development can be approved as being consistent with Section 30253 of the Coastal Act, staff recommends special conditions that require the permittee to monitor and annually measure bluff retreat, prohibit construction of future bluff or shoreline protective devices, and require the landowner to remove development authorized by the permit amendment when it is no longer in a stable location, defined in the special condition as inland of the 1.5 factor of safety.

Given that the authorized deck and associated development is: (1) not a principal structure or habitable space; (2) built on footings that can be removed without heavy equipment; (3) supported by a geotechnical investigation that indicates that the deck is not expected to be threatened by bluff retreat for its expected life; and (4) subject to monitoring and removal if it is no longer located in a stable location so that it will never be reliant on shoreline armoring, staff believes the reduced setback of 35 feet solely for the authorized deck development, as conditioned, is consistent with Coastal Action Section 30253. Therefore, staff recommends that the Commission find that the amended development, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act.

The motion to adopt the staff recommendation of approval of CDP amendment request NCR-76-CC-720-A1 with special conditions is found on page [4](#).

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- [Exhibit 6](#) – Coastal Retreat Analysis
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- [Exhibit 8](#) – CDP No. NCR-76-CC-720

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** the proposed amendment to Coastal Development Permit No. NCR-76-CC-720 subject to the conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit amendment and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves the coastal development permit amendment on the grounds that the development as amended and subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit amendment complies with the California Environmental Quality Act because feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment.

II. STANDARD CONDITIONS

Permit Amendment NCR-76-CC-720-A1 is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment:** The permit amendment is not valid and development shall not commence until a copy of the permit amendment, signed by the permittee or authorized agent, acknowledging receipt of the permit amendment and acceptance of the terms and conditions, is returned to the Commission office.
2. **Interpretation:** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
3. **Assignment:** The permit amendment may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit amendment.
4. **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

Special Condition 1 and all other terms and conditions of CDP No. NCR-76-CC-720 remain in full force and effect. Special Condition 2 of the original permit is modified as shown below and reimposed as a condition of the CDP as amended. Special Conditions 3 through 10 are new conditions added to CDP Amendment No. NCR-76-CC-720-A1. The special conditions are listed below. For revised Special Condition 2, new and deleted language appears as **bold double-underlined** and ~~**bold double-strikethrough**~~ text respectively. For ease of reading, Special Conditions 3-10 are shown in plain type even though they are all entirely new.

1. That there be no disturbance to existing natural vegetation in the area between Patricks Point Drive and the driveway as shown on the plot plan.
2. All structures to be set back at least 50 feet from the bluff face **except for the 1,950-square-foot attached deck approved with conditions pursuant to Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1**, and no disturbance of the unstable bluff slope is to be allowed.

The following conditions are entirely new, but are shown in plain type for ease of reading:

3. **Construction Responsibilities.** The permittee shall comply with the following construction-related requirements:
 - A. Construction shall be performed with hand tools only;
 - B. Staging and storage of construction equipment and materials shall occur on the east (inland) side of the subject residence;
 - C. All ground disturbing activity and asphaltic-concrete paving operations shall be performed during dry-weather periods only, when the National Weather Service's Northwestern California forecast for the Trinidad area predicts a less than 50 percent chance of precipitation for the timeframe in which the work is to be conducted;
 - D. All on-site stockpiles of soil and construction materials and debris shall be contained at all times and shall be covered and surrounded by perimeter barriers during wet weather to minimize discharge of sediment and other pollutants;
 - E. To minimize wildlife entanglement and plastic debris pollution, temporary rolled erosion and sediment control products (such as fiber rolls and silt fencing) that incorporate plastic netting (such as polypropylene, nylon, polyethylene, polyester, or other synthetic fibers) shall not be used. Acceptable alternatives include erosion and sediment control products without netting, products made with loose-weave natural fiber netting, and unreinforced silt fences;
 - F. No uncured concrete or runoff from uncured concrete shall be allowed to enter coastal waters. BMPs for concrete paving and grinding operations shall be employed to prevent concrete grindings, concrete slurry, and paving rinseate from sheet-flowing into coastal waters;
 - G. On-site native vegetation shall be maintained to the maximum extent feasible during construction activities; and

- H. Any excess excavated material and other construction debris resulting from construction activities shall be removed immediately upon completion of component construction, and shall be disposed of at a disposal site outside the coastal zone or within the coastal zone pursuant to a valid coastal development permit.

- 4. **Protection of Archeological Resources.** If an area of cultural deposits or human remains is discovered during the course of the project, all construction shall cease and shall not recommence until a qualified cultural resource specialist, in consultation with the Tribal Historic Preservation Officer of the Yurok Tribe, analyzes the significance of the find and prepares a supplementary archaeological plan for the review and approval of the Executive Director, and either: (a) the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, or (b) the Executive Director reviews the Supplementary Archaeological Plan, determines that the changes proposed therein are not *de minimis*, and the permittee has thereafter obtained a subsequent amendment to CDP No. NCR-76-CC-720.

- 5. **Lighting Plan.** PRIOR TO COMMENCEMENT OF CONSTRUCTION OF DECK LIGHTING APPROVED BY COASTAL DEVELOPMENT PERMIT AMENDMENT NO. NCR-76-CC-720-A1, the permittee shall submit to the Executive Director for review and written approval, a final lighting plan for all new outdoor night lighting.
 - A. The plan shall demonstrate that all new outdoor night lighting shall be minimized, directed downward, and shielded using the best available dark skies technology and pole height and design that minimizes light spill, sky glow, and glare impacts.
 - B. The plan shall contain at a minimum:
 - i. Site plan locations of all new outdoor night lighting; and
 - ii. Design specifications for all new outdoor night lighting.

- 6. **Agreement to Bluff Retreat Monitoring.** By acceptance of this permit amendment, the permittee agrees, on behalf of himself and all successors and assigns, to the following bluff retreat monitoring requirements:
 - A. The permittee agrees to undertake annual bluff measurements pursuant to the approved plan required by Special Condition 7 and to submit annual measurement results to the Executive Director and the County of Humboldt every year by June 1st (i.e., following the end of the previous rainy season) beginning the first year following the date of approval of this coastal development permit amendment (i.e., the first date being 6/1/19);
 - B. The permittee agrees to have a Certified Engineering Geologist or Geotechnical Engineer undertake a bluff stability analyses pursuant to the approved plan required by Special Condition 7 when the bluff edge measures 20 feet from the authorized deck. The permittee agrees to submit the results of each analysis to the Executive Director and to the County of Humboldt by June 1st following each analysis; and

- 7. **Bluff Top Edge Monitoring.** PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. NCR-76-CC-720-A1, the applicant shall submit, for the review and approval of the Executive Director, one printed and one digital copy of a bluff

top edge monitoring plan for conducting measurements and an analysis of bluff stability as required by Special Condition 6 that conforms with the applicant's proposal dated August 30, 2017 (Exhibit 7), except as modified herein.

- A. The plan shall include, at a minimum, the following:
- i. Provisions for a licensed surveyor to establish, prior to construction, three numbered monuments or surveyed points of measurement (reference points) evenly spaced along the seaward edge of the approved deck development;
 - ii. Provisions for the permittee and/or successors in interest to conduct annual bluff measurements, in feet, of the linear distance (measured perpendicular from the shoreline) between the established reference points and the bluff top edge, as defined by CCR§13577(h), at similar times each spring, for the life of the deck and immediately after any event that results in the bluff top edge eroding inland 5 feet or more;
 - iii. Provisions for maintaining a monitoring log documenting the results of each bluff measurement. Reporting for each measurement episode shall include at least the following:
 - a. The distance to the bluff edge from the established reference points measured to the nearest foot;
 - b. the date of the measurement;
 - c. identification of the person making the measurement; and
 - d. one or more photographs (in color, at a scale and resolution that allows for comparison by the naked eye between photos of the same location taken at different times) of the bluff retreat if more than 5 feet has occurred since the prior year. Measurement episodes shall include photos from the same vantage points each time to the extent possible.
 - iv. Provisions for a Certified Engineering Geologist or Geotechnical Engineer to prepare a geotechnical report and submit that report to the Executive Director and to Humboldt County when the bluff edge recedes to within 20 feet of the deck, as reported by the annual measurements.
 - a. The report shall include a detailed quantitative assessment of bluff stability including an investigation of bluff profile, cracking, seeps; a review of annual bluff measurements; and a quantitative slope stability analysis based on soil strength. The report shall also include recommendations as to whether or not the deck remains in a stable location on the bluff top.
 - b. For the purposes of the report, "stable location" shall be defined as inland of the 1.5 factor of safety established by the quantitative bluff stability analysis.
 - v. Provisions for submittal of results of annual measurements and results of quantitative bluff stability analyses to the Executive Director and to Humboldt County by June 1st of each year following each monitoring and analysis event, as applicable; and
 - vi. Provisions requiring that if any governmental agency either prohibits the use or orders the removal of the development approved pursuant to Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1 or if the results of annual measurements or the geotechnical report indicate that such development is not located in a stable location (as defined in subsection A.iv.b

above), the permittee shall submit a plan and schedule for removing such development, including, but not limited to, all footings and perimeter foundations. Removal and/or relocation activities shall be processed as subsequent amendment(s) to CDP No. NCR-76-CC-720, unless the Executive Director determines that no amendment is legally required. The permittee shall, within 90 days of submitting the plan for removal, apply for the CDP amendment for removal of the development.

- B. The permittee shall monitor and report on the bluff and apply for removal of the development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a subsequent Commission amendment to Coastal Development Permit No. NCR-76-CC-720, unless the Executive Director determines that no amendment is legally required.

8. **No Future Bluff or Shoreline Protective Device.**

- A. By acceptance of this Permit, the permittee agrees, on behalf of himself and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1, including the deck, development supported by the deck, and supporting footings and perimeter foundations in the event that such development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other coastal hazards in the future, and as may be exacerbated by sea level rise. By acceptance of this Permit, the permittee hereby waives, on behalf of himself and all successors and assigns, any rights to construct such devices that may exist under applicable law.
- B. By acceptance of this Permit, the permittee further agrees, on behalf of himself and all successors and assigns, that the landowner shall remove the development authorized by Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1 if any governmental agency either prohibits the use or orders the removal of such development or if the results of annual measurements or the geotechnical report indicate that the development approved pursuant to Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1 is not located in a stable location (as defined in Special Condition 7 A.iv.b above), whichever happens sooner. In the event that all or portions of the development authorized by Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1 fall to the bluffs or ocean before they are removed, the landowner shall remove all recoverable debris associated with such development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site. Development associated with removal of the deck and/or other authorized development shall require a subsequent amendment to CDP No. NCR-76-CC-720, unless the Executive Director determines no amendment is legally required.

- 9. **Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit amendment, the permittee acknowledges and agrees (i) that the site may be subject to hazards, including but not limited to earth movement, erosion, landslides, bluff retreat, and other geologic hazards; (ii) to assume the risks to the permittee and the property that is the

subject of this permit amendment of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

10. **Deed Restriction.** PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. NCR-76-CC-720-A1, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit amendment a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit amendment, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit amendment, 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 amendment. 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 amendment, shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

IV. FINDINGS AND DECLARATIONS

A. BACKGROUND AND AMENDMENT DESCRIPTION

The applicant proposes to amend Coastal Development Permit (CDP) No. NCR-76-CC-720, approved by the North Coast Regional Commission in December 1976, for the construction of a two-story, single-family residence above a bluff overlooking the ocean at 3224 Patricks Point Drive, approximately three miles north of Trinidad in Humboldt County (APN 517-051-007; See Exhibit 1). The amendment proposes to remove and replace an existing deck along the western (oceanfront) side of the residence with a slightly larger deck.

The subject 4.4-acre parcel was part of a land division of seven lots approved by the Commission in 1973.¹ The parcel is bordered by rural residential development to the north and south, with Patricks Point Drive to the east and the Pacific Ocean to the west (Exhibits 2-3). The eastern half of the property has a gentle 2-4% slope, while the western half consists of a bluff face steeply sloping down to a narrow, rocky intertidal beach at the toe of the bluff (Exhibit 4). In addition to the existing single-family residence with attached deck, the parcel is developed with a detached

¹ The land division was approved under CDP No. NCR-73-A-0091.

garage, gravel driveway, and septic system. The parcel is located within a grove of conifers and includes spruce and fir trees as well as alders, shrubs, ferns, and grasses.

Both the existing deck and proposed replacement deck extend along the entire western side of the subject residence between the residence and the edge of the ocean bluff. Under the proposed amendment, the deck footprint would be expanded by 170 square feet, from 1,780 square feet to 1,950 square feet. The majority of the new wider deck would extend six feet closer to the bluff edge, with a twelve-foot-wide projection containing a fire pit with surrounding bench seating extending fourteen feet closer. The new deck would also have a new set of stairs approximately seven feet wide extending approximately six to twelve feet closer to the bluff edge. See Exhibit 5, pages 1-3 for site plans showing the footprint of the proposed new deck relative to the existing deck.

The proposed new two-tiered deck would include a hot tub, shower, sauna, outdoor bar with a sink, fire pit, planter box, and seating areas (Exhibit 5, pg. 3). Under the proposed project, the redwood decking, Douglas fir framing, and concrete footings of the existing deck would be removed, and thirty-five new footings would be hand dug (Exhibit 5, pg. 4). In addition, the portions of the deck devoted to the sauna and planter box would have continuous perimeter reinforced concrete foundations ranging in depth from twelve to eighteen inches. All foundations would be hand constructed without heavy equipment. The new deck materials would consist of recycled redwood and the new framing would be pressure treated Douglas fir. The outdoor hot tub, shower, and sink would be connected to the house septic system. Humboldt County's Division of Environmental Health (DEH) has reviewed the project description and plans and found the septic and reserve area sizing and setbacks from the proposed deck are sufficient to serve the amended development. DEH will require a cover on the outdoor sink to prevent unnecessary rainwater discharge to the septic dispersal field and a similar cover or a valve for the shower drain.

As previously mentioned, the original permit for the single-family residence with attached deck was approved in 1976 by the North Coast Regional Commission under CDP No. NCR-76-CC-720 (Exhibit 8). The two issues associated with the original permit were visual resources and bluff slope stability, and the CDP was approved with two special conditions: (1) that there be no disturbance to existing natural vegetation in the area between Patricks Point Drive and the driveway; and (2) that all structures be set back at least 50 feet from the bluff face and no disturbance of the unstable bluff slope be allowed. The proposed amendment would not include any disturbance to the bluff slope or to existing natural vegetation between Patricks Point Drive and the driveway, but the amendment would result in the deck structure encroaching into the 50-foot bluff setback.

The applicant is seeking permission for a reduced bluff setback for the deck of a minimum of 35 feet. The reduced setback would be limited to the deck development and not associated with any development in the interior of the residence. The applicant has proposed to annually monitor the distance of the deck to the bluff edge, and to obtain a slope stability analysis from a qualified expert when the bluff erodes to within 20 feet of the deck. If the analysis shows that the new development is not in a stable location and is jeopardized, then the applicant proposes to remove the deck including all supporting piers and foundations. According to the applicant's agent, the

deck and all foundation materials will be removable without heavy equipment should removal become necessary due to bluff retreat. The applicant also proposes to not at any time in the future armor the bluff to protect the new deck structure.

B. STANDARD OF REVIEW

Although Humboldt County has a certified local coastal program (LCP), the property is located in a non-certified area that includes lots located west of Patricks Point Drive and extending south from Patricks Point State Park to the intersection of Patricks Point Drive and Stagecoach Road, and then from Stagecoach Road south to Trinidad State Beach. As a consequence, the Commission retains CDP jurisdiction over the site, and the standard of review for issuance of a CDP is whether the development is consistent with the Chapter 3 policies of the Coastal Act.

C. OTHER AGENCY APPROVALS

There are no other discretionary agency approvals required for this project. The deck will require a building permit from the County and the DEH requirements discussed above regarding use and care of the septic system to handle the increased flow of wastewater from the amended development will be made requirements of the building permit.

D. GEOLOGIC HAZARDS

Section 30253 of the Coastal Act states, in applicable part:

New development shall do all of the following:

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

The 4-acre property is located between the sea and the first public road on the west side of Patricks Point Drive above an approximately 240-foot-high coastal bluff. The coastal bluff is subject to bluff retreat, which poses a hazard to development of the subject parcel. In previous actions on coastal development permits, the Commission has interpreted Section 30253 of the Coastal Act to require that coastal development be sited a sufficient distance landward of coastal bluffs that it will neither be endangered by erosion nor lead to the construction of protective coastal armoring during the assumed economic life of the development.

According to the site plan for the approved residence, the house is sited so that the existing deck is located 50 feet from the bluff edge at its nearest point (Exhibit 7, pg. 9). Under the proposed amendment, the deck would be replaced by a larger deck that would extend six to fourteen feet further westward and would be located 35 feet from the bluff edge at its nearest point (Exhibit 5, pages 1-2).

The findings for the original 1976 CDP for the subject single-family residence (NCR-76-CC-720) describe the bluff slope as unstable, and as a result the Commission included a condition requiring all structures on the property to be set back at least 50 feet from the bluff face and prohibiting disturbance of the bluff slope (Exhibit 7). No geologic or soils reports were included in the file record or referenced in the findings for the original 1976 CDP, and there is no indication of how the 50-foot setback was determined.

The applicant's agent has submitted a letter to the Coastal Commission's North Coast District Office dated August 30, 2017 requesting a reduction in the 50-foot setback from the bluff edge to a 35-foot setback for the replacement and expansion of the existing deck (Exhibit 7). The letter clarifies that the request for a reduced setback is limited to the deck development and not associated with any development in the interior of the residence. The letter further proposes that the property owner will annually monitor the distance to the bluff edge, and will obtain a slope stability analysis from a qualified expert when the bluff erodes to within 20 feet of the deck. If the analysis shows that the new development is not in a stable location and is jeopardized, then the applicant will remove the deck. The letter also states that the property owner will not at any time in the future armor the bluff to protect the new deck structure.

Furthermore, Pacific Watershed Associates (PWA) was hired by the applicant to analyze coastal bluff retreat on the subject property in relation to the proposed replacement deck (Exhibit 6). On May 13th, 2017, a Civil Engineer and an Engineering Geologist from PWA visited the property and traversed the slope between the proposed replacement deck and the Pacific Ocean to look for physical clues of erosion. The consultants concluded:

1) The slope between the proposed project site and the Pacific Ocean has some small shallow instabilities but appears to be relatively stable over an approximately 70 year time frame.

2) Pistol butting² observations of trees of varying ages appear to indicate the shallow slope instabilities were more active in the past and appear to be stabilizing.

In addition, to assess the historic rate of bluff retreat, PWA staff examined historic aerial photographs of the project site and shoreline from the past 69 years, geo-rectifying the photographs relative to a 2016 satellite photograph and overlaying the 2016 shoreline on the historic photographs.³ PWA concluded that based on the available imagery, no quantifiable coastal retreat has occurred at this location over the last 69 years. PWA concluded:

It is our opinion that the proposed deck location is likely to be stable for the foreseeable future and that coastline retreat rates pose no threat to the new structure within its economically viable lifetime.

As stated above, Section 30253 requires that coastal development be sited a sufficient distance landward of coastal bluffs that it will neither be endangered by erosion nor lead to the

² Pistol-butted trees are trees with a bend in their trunks that indicate soil creep (the result of trees attempting to maintain a vertical position as the soil they are growing in slides downhill).

³ For the analysis of shoreline retreat rates, PWA reviewed photos dating from 1947/48, 1962, 1996, and 2000.

construction of protective coastal armoring during the assumed economic life of the development. New residential development is typically designed for 75 to 100 years, while ancillary development, amenity structures, or moveable or expendable construction may identify a relatively short expected life. The proposed deck is an ancillary development built on footings and perimeter foundations that can be removed without the use of heavy equipment. Based on PWA's bluff retreat analysis, bluff retreat is not expected to threaten the deck within its lifetime.

However, while the geotechnical investigation accounted for expected bluff retreat over the life of the deck based on historic data of past bluff retreat and current signs of instability on the bluff surface, it did not include a quantitative slope stability analysis. Slope stability calculations require an analysis of the shape and geologic makeup of the coastal bluff including a consideration of rock or soil strength, variations in rock and soil strength values due to different types of materials making up the slope, anisotropy in these values, any weak planes or surfaces that may exist in the slope, pore water pressure, and seismic forces. A quantitative slope stability analysis measures the resistance of a slope to land sliding to determine a setback necessary to assure safety from marginally stable slopes. The Commission has required that bluff-top development include such a setback measured from the most distant bluff failure surface to ensure the minimum factor of safety recommended by the Commission's geologist⁴, and that this setback distance be added to any setback distance needed to account for the estimated historic bluff retreat rate over the expected life of the structure.

In addition, although a comprehensive geotechnical evaluation is a necessary and useful tool that the Commission relies on to determine if proposed development is permissible at all on any given bluff-top site, the Commission finds that a geotechnical evaluation alone is not a guarantee that a development will be safe from bluff retreat. Geologic hazards are episodic, and bluffs that may seem stable now may not be so in the future. It has been the experience of the Commission that in some instances, even when a thorough professional geotechnical analysis of a site has concluded that a proposed development will be safe from bluff retreat hazards, unexpected bluff retreat episodes that threaten development during the life of the structure sometimes still do occur.

As discussed above, the applicant proposes to monitor the bluff annually and to have a slope stability analysis performed by a qualified expert when the bluff retreats to within twenty feet of the proposed deck. If the analysis determines that the new development is not in a stable location and is jeopardized, the applicant proposes to remove the deck. The applicant also proposes to never armor the bluff to protect the new deck structure.

The proposed twenty foot trigger point would allow adequate space for construction workers and equipment to safely access the deck for removal. As noted above, the applicant's qualitative bluff stability assessment from surface observations along the bluff face suggests that the slope has been relatively stable over 70 years. Given these findings and the documented minimal bluff retreat rate, it is reasonable to expect that there would be sufficient time from the point where the bluff erodes to within twenty feet of the deck structure for the permittee to prepare and submit a

⁴ Johnsson, M.J., 2005. *Establishing development setbacks from coastal bluffs*. In Magoon, O.T., Converse, H., Baird, B., Jines, B., and Miller-Henson, M., eds., *California and the World Ocean '02: Revisiting and revising California's Ocean Agenda*: Reston, Virginia, American Society of Civil Engineers, p. 396-416.

quantitative slope stability analysis documenting whether the development approved pursuant to Coastal Development Permit (CDP) Amendment No. NCR-76-CC-720-A1 is located in a stable location, and for the Commission to process any permit amendment to remove such development.

However, the Applicant's proposal does not define "jeopardized" or identify how the stability of the location would be determined and requires that the proposed development "not be located in a stable location and [be] jeopardized" before it is removed. To ensure that the proposed amended development can be approved as being consistent with Section 30253 of the Coastal Act, the Commission attaches the applicant's proposal as **Special Conditions 6-8**. **Special Condition 6** requires the permittee to monitor and report on the bluff's status as detailed in Special Condition 7. **Special Condition 7** requires submittal of a final bluff top edge monitoring plan that complies with the applicant's proposal except as modified by the permit conditions and includes detailed requirements for (1) conducting the annual bluff top edge monitoring to ensure that measurements are consistent, accurate, well-documented, and verifiable by Commission staff; (2) conducting the proposed future geotechnical investigation including requirements that the investigation include a quantitative slope stability analysis; and (3) removing or relocating the deck if any governmental agency orders removal of the development or if the results of annual measurements or the geotechnical investigation indicate that the deck is not located in a stable location, defined as inland of the 1.5 factor of safety established by the quantitative slope stability analysis. **Special Condition 8** prohibits the construction of shoreline protective devices to protect the deck. These requirements are necessary for consistency with Section 30253 of the Coastal Act, which states in part that new development shall minimize risk to life and property in areas of high geologic hazard, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Some risks of an unforeseen natural disaster, such as an unexpected landslide, catastrophic bluff failure, significant erosion, etc., could result in destruction or partial destruction of the new deck. In addition, the amended development itself and its maintenance may cause future problems that were not anticipated. When such an event takes place, public funds are often sought for the clean-up of structural debris that winds up on the beach or on an adjacent property. In case such an unexpected event occurs on the subject property, **Special Condition 8** also requires the landowner to both accept sole responsibility for the removal of any structural debris resulting from landslides, bluff failures, or erosion on the site and agree to remove the deck should bluff retreat reach the point where a government agency has ordered that the deck be removed or not be used or if the results of annual measurements or the geotechnical investigation indicate that the deck is not located in a stable location, defined as inland of the 1.5 factor of safety in **Special Condition 7**.

The Commission also attaches **Special Condition 9**, which requires the landowner to assume the risks of extraordinary erosion and geologic hazards of the property and waive any claim of liability on the part of the Commission. Given that the applicant has chosen to implement the project despite these risks, the applicant must assume the risks. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit

amendment 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.

Furthermore, **Special Condition 10** requires the applicant to record a deed restriction to impose the special conditions of the permit amendment as covenants, conditions and restrictions on the use and enjoyment of the property. This special condition is required, in part, to ensure that the amended development is consistent with the Coastal Act and to provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely into the future, or that a protective device could be constructed to protect the approved amended development and will ensure that future owners of the property will be informed of the Commission's immunity from liability and the indemnity afforded the Commission.

Finally, **Special Condition 2** of the original permit requires all structures to be set back at least 50 feet from the bluff face. As amended, the special condition authorizes a single exception to the 50-foot set back requirement for the 1,950 foot reconstructed deck approved with conditions pursuant to this permit amendment. Given that the authorized deck and associated development is: (1) not a principal structure or habitable space; (2) built on footings that can be removed without heavy equipment; (3) supported by a geotechnical investigation that indicates that the deck is not expected to be threatened by bluff retreat for its expected life; and (4) subject to monitoring and removal if it is no longer located in a stable location so that it will never be reliant on shoreline armoring, staff believes the reduced setback of 35 feet solely for the authorized deck development, as conditioned, is consistent with Coastal Action Section 30253.

Therefore, the Commission finds that the proposed amended development, as conditioned, is consistent with Section 30253 of the Coastal Act, because the amended development as conditioned will (1) minimize risks to life and property in an area of high geologic hazards, (2) not contribute significantly to geologic instability, and (3) not require the construction of shoreline protective works.

E. MARINE RESOURCES & WATER QUALITY

Section 30230 of the Coastal Act states as follows:

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

Section 30231 of the Coastal Act states as follows:

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

The proposed amendment involves the reconstruction of a deck on the west side of a single-family residence on a bluff-top parcel. The applicant proposes to remove and recycle the concrete footings, redwood decking, and Douglas fir framing of the existing deck and hand dig the thirty-five footings for the proposed new deck and the perimeter foundations for the planter box and sauna built into the deck. According to the submitted project description, native soil from the new footings will be used to fill the holes left by the removal of the old footings and any additional excavated soil will be used for landscaping. No grading of the site is proposed. To prevent any sediment, construction debris, or hazardous materials from washing into the ocean during project construction, no heavy equipment will be utilized, all materials will be staged on the existing driveway on the east (inland) side of the house or offsite until necessary, all loose soil will be covered in the event of any wet weather, and erosion control measures will be implemented as required. Vegetation will be removed using hand tools.

To ensure that these construction best management practices (BMPs) are implemented as proposed, and to further minimize temporary construction impacts to the biological productivity and quality of nearby coastal waters, the Commission imposes **Special Condition 3**. Special Condition 3 requires adherence to various construction-related responsibilities, including, but not limited to: (a) performance of all ground disturbing activities and asphaltic-concrete paving operations during dry-weather periods only; (b) containment of all on-site stockpiles of soil and construction debris; (c) utilization of concrete paving and grinding operational constraints; (d) maintenance of on-site vegetation to the maximum extent feasible during construction activities; and (e) removal and disposal of any excess excavated material and construction debris resulting from construction activities at a disposal site outside the coastal zone or within the coastal zone pursuant to a valid coastal development permit.

The Commission finds that the proposed amended development, as conditioned, will maintain and enhance the biological productivity and quality of coastal waters consistent with the requirements of Sections 30230 and 30231 of the Coastal Act.

F. ARCHAEOLOGICAL RESOURCES

Section 30244 of the Coastal Act 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 site is located within the ancestral lands of the Yurok Tribe. Commission staff referred the project to the Yurok Tribe but have not received any comments. The proposed deck replacement requires ground disturbance to remove existing concrete deck footings and replace with thirty-five new footings and two small perimeter foundations (Exhibit 5, pg. 4). To ensure protection of any archaeological resources that may be discovered at the site during footing excavation, the Commission attaches **Special Condition 4** requiring that if an area of cultural deposits is discovered during the course of the project, all construction must cease and a qualified cultural resource specialist must analyze, in consultation with the Yurok Tribe, the significance of the find. To recommence construction following discovery of cultural deposits, the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director, who determines whether the changes are de minimis in nature and scope, or whether a subsequent amendment to CDP No. NCR-76-CC-720-A1 is required.

Therefore, the Commission finds that the proposed amended development, as conditioned, includes reasonable mitigation measures and is consistent with Coastal Act Section 30244.

G. VISUAL RESOURCES

Section 30251 of the Coastal Act states, in applicable part, as follows:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas...

The subject residence is located within a grove of conifers above a bluff overlooking the ocean approximately one mile south of Patricks Point State Park and less than four miles north of the City of Trinidad. The stretch of shoreline between Patricks Point State Park and Trinidad includes rocky points, offshore rocks, sea stacks, narrow rocky beaches, and small sand and gravel pocket beaches backed by wave-eroded, high bluffs. The subject property is developed with an existing single-family residence and detached garage permitted under the original permit approved by the North Coast Regional Commission in 1976. The development, including the proposed replacement deck, and the ocean are not visible from Patricks Point Drive, due to the presence of a swath of dense forested vegetation between the house and road required to be retained by Special Condition 1 of the original permit. The proposed deck replacement is on the

seaward side of the existing house and thus will be visible from the ocean, but the deck will be set fully against the backdrop of the house and will not affect the visual massing or character of the house (See Exhibit 3). The deck construction does not require any alteration of landform and is visually compatible with the rural residential character of the surrounding area.

Although the surrounding neighborhood is mostly developed with existing rural residential development, the overall nighttime character of the area has relatively minimal exterior lighting evident. Accordingly, to prevent the cumulative impacts of glare to the visual resources of the area, the Commission attaches **Special Condition 5**. This condition requires that all new outdoor lighting associated with the proposed deck replacement project be minimized, directed downward, and shielded using the best available dark skies technology and pole height and design that minimizes light spill, sky glow, and glare impacts.

Therefore, the Commission finds that the proposed amended development, as conditioned, will protect public views to the ocean, minimize the alteration of natural land forms, and be visually compatible with the character of surrounding area, consistent with Section 30251 of the Coastal Act.

H. PUBLIC ACCESS

Coastal Act Sections 30210, 30211, 30212 and 30214 require the provision of maximum public access opportunities, with limited exceptions. Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use (i.e., potential prescriptive rights or rights of implied dedication). Section 30212 requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, such as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety. Section 30214 of the Coastal Act identifies the need to regulate the time, place and manner of public access depending on the facts and circumstances in each case. In applying Sections 30210, 30211, 30212, and 30214, the Commission is limited by the need to show that any denial of a permit application based on these sections or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential public access.

Existing public access to nearby beach and shoreline areas includes a public access parking lot and trail to the beach at Palmer's Point in Patricks Point State Park, located approximately one mile north of the subject property. In addition, a number of lateral public access easements along the shoreline over parcels in the project vicinity have been dedicated and accepted.⁵

As previously described, the subject lot is situated on a bluff-top parcel. There is no evidence of public use of the property for public access, no evidence of trails on the property, and no

⁵ APNs 0517-0051-04 (accepted by the McKinleyville Land Trust), 0517-0051-08 (accepted by the California State Coastal Conservancy), 0517-0061-10 (accepted by the California State Coastal Conservancy), & 0517-0061-13 (accepted by Humboldt North Coast Land Trust).

indication from the public that the site has been used for public access purposes in the past. Thus, the amended development will not interfere with any existing public access use of the property. In addition, the proposed development will not significantly and adversely increase the demand for public access to the shoreline, as it involves redevelopment of a deck on an existing single-family residence. For all of these reasons, the Commission finds that the proposed amended development, which does not include provision of public access, is consistent with the public access policies of the Coastal Act.

I. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act states as follows:

(a) Prior to certification of the Local Coastal Program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a coastal development permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

This section of the Act provides that the Commission shall issue a CDP only if the project will not prejudice the ability of the local government having jurisdiction to prepare an LCP that conforms with the Chapter 3 policies of the Coastal Act.

There is no certified LCP for lands west of Stagecoach Road and Patrick's Point Drive (where those roads are the first public roads nearest the sea) from the City of Trinidad to Patrick's Point State Beach.⁶ The subject property and surrounding parcels are locally planned and zoned for rural residential use. As conditioned, the proposed development will be consistent with Chapter 3 of the Coastal Act, and approval of the project will not prejudice the ability of Humboldt County to prepare a LCP for this area that is in conformity with the provisions of Chapter 3 of the Coastal Act.

J. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Humboldt County served as the lead agency for the project for CEQA purposes. The County determined that the project qualified for a CEQA categorical exemption under Class 3, Section 15301 (minor addition to an existing structure) of CEQA Guidelines.

⁶ The area of deferred certification includes all privately owned lots, other than those owned by the Humboldt North Coast Land Trust, west of Scenic Drive and Patrick's Point Drive (where these two roads are the first public roads nearest the sea) and north of the City of Trinidad to Patrick's Point.

Section 13096 of the Commission's administrative regulations requires Coastal Commission approval of coastal development permit 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 California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved 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 Commission incorporates its findings on conformity with Coastal Act policies at this point as if set forth in full. As discussed above, the project as proposed to be amended has been conditioned to be consistent with the policies of the Coastal Act. No public comments regarding potential significant adverse environmental effects of the project amendment were received prior to preparation of the staff report. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed amended 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.

APPENDIX A
SUBSTANTIVE FILE DOCUMENTS

File for Coastal Development Permit No. NCR-76-CC-720-A1

File for Coastal Development Permit No. NCR-76-CC-720

File for Coastal Development Permit Application No. 1-96-043