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Filed:	9/30/2026
Action Deadline:	3/29/2027
Staff:	RG/KF - SC
Staff Report:	10/23/2026
Hearing Date:	11/4/2026

STAFF REPORT
CDP APPLICATION

Application Number:	**3-26-0524**
Applicant:	City of Santa Cruz Public Works Department
Project Location:	On the bluffs and rock shelf fronting 800, 920, 932, 944, 960, 1004, 1016, and 1030 West Cliff Drive in the City of Santa Cruz, Santa Cruz County.
Project Description:	1. Recognize (from past ECDP approvals): (a) the construction of various shoreline armoring structures to protect West Cliff Drive and associated infrastructure (including infill seawalls, grouted and ungrouted riprap revetments, a pin-pier wall, and a sinkhole fill), (b) the replacement of the Bethany Curve culvert and related headwall system, (c) the resurfacing of the road and public pathway; and (d) construction/installation of various related improvements (landscaping, fencing, striping, etc.). 2. Recognize rock riprap placed in the 1990s and early 2000s in the project area without a CDP. 3. Realign West Cliff Drive and the pathway inland in one location (near Its Beach). 4. Construct/implement several public recreational access and viewshed enhancements along the West Cliff corridor.
Staff Recommendation:	Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION

The City of Santa Cruz proposes a project located along West Cliff Drive and fronting Monterey Bay in three main components: (1) the required follow-up approval for a series

of shoreline armoring structures (i.e., “infill seawalls”) and related development completed pursuant to temporary emergency CDP (ECDP) authorization following the winter storms of 2023 and 2024; (2) authorization for development not yet completed consisting of realignment of the West Cliff Drive roadway and adjacent coastal trail pathway landward near Its Beach, and a series of public recreational access and viewshed enhancements along the West Cliff corridor; and (3) after-the-fact approval of rock riprap placed in the 1990s and early 2000s within the project area without required CDPs. The overall purpose is to respond to coastal hazards threats through a combination of managed retreat and hard armoring so as to keep the West Cliff Drive corridor open and available for public use and enjoyment, including for drivers, bicyclists, and pedestrians.

The Coastal Act is, at its core, a law that requires coastal resource protection, and only allows for armoring under very limited criteria, where armoring is probably best understood as a Coastal Act exception or override. In fact, as applicable here, the Coastal Act’s armoring “override” only allows armoring that is required to protect an existing structure (a structure that existed before 1977 and has not been redeveloped since) or to serve a coastal-dependent use in danger from erosion. And *if* it meets such tests, then such armoring must also avoid coastal resource impacts as much as feasible and provide mitigation for its unavoidable impacts. In short, allowable armoring must be the least environmentally damaging feasible alternative for protecting an existing endangered structure and/or coastal-dependent use, and it must eliminate/mitigate all its adverse impacts on coastal resources, including importantly in terms of impacts to beach/shoreline area resources. Put another way, Section 30235 ‘overrides’ coastal resource requirements that would normally require denial of a project like this due to its unavoidable coastal resource impacts, but even when such impacts are allowed because of such an override, they must be commensurately and appropriately mitigated.

In this case, although West Cliff Drive was originally constructed in the late 1800s/early 1900s, and has generally remained in the same configuration since that time, it has also been subject to numerous modifications and replacements over the years, including portions of it being replaced as part of this CDP application. Thus, West Cliff Drive in the project area is not so clearly an existing structure to which the aforementioned override applies; however, the West Cliff Drive corridor, including the road and the recreational pathway system, is an extremely important public access system, providing a continuous east-west coastal trail and roadway along the shoreline and connecting coastal overlooks, surfing spots, trails, beach stairways, pocket beaches, and parks. In this context of the corridor serving as a public promenade, the road and pathway can be considered coastal-dependent, and thus armoring is permissible if the other requirements are met.

Due to the geology, wave characteristics, and storm cycles along this stretch of coastline, large episodic erosion events have eaten away at the bluff edge leading to very little space between the eroding bluff edge and West Cliff Drive improvements at certain locations. Thus, in these areas, West Cliff Drive and the coastal pathway can be considered in danger from erosion, as is further evidenced by a series of unpermitted as well as emergency and regular armoring measures that the City has installed over the

years to protect the roadway in different locations and at different times. Staff and the City have worked together to implement targeted armoring solutions in these discrete locations affected by recent erosion episodes, while also identifying areas where non-armoring strategies such as retreat of the road/path inland and away from coastal hazards, and thus avoidance of hard armoring, can be utilized.

The result is a glimpse into what the West Cliff Drive corridor might look like in the future, where certain sections use hard armoring strategies to protect the road and pathway for public use and enjoyment, while other sections are realigned landward to avoid armoring and coastal resource impacts to the beach and bluff where this is possible. And staff believes that there is a range of measures that can be applied to limit impacts from the armoring components as much as possible (e.g., via camouflaging measures, construction BMPs, landscaping, etc.) and to provide offsetting and commensurate mitigation for impacts emanating from the Section 30235 override that cannot be avoided. In terms of the latter, while the project is partially self-mitigating, the City has also put together a mitigation package that includes a series of public recreational access and public view enhancements, including removal of riprap at Mitchell's Cove and Cowell Beach, repairs to two surf access stairways, removal of errant concrete debris, implementation of graffiti abatement measures, installation of doggy mitt stations, and a commitment to explore funding for a water fountain/water bottle refill station, as well as expanded public parking lot hours. In addition, the City has committed to identifying both shorter and longer-term corridor-wide public recreational access and public view enhancements through ongoing adaptation and planning work, including measures such as removing defunct infrastructure, ongoing landscaping efforts to remove non-native and invasive species, improving blufftop overlook spaces, improving bike/pedestrian transit, and other similar measures. Lastly, the City has committed to developing a suite of design guidelines for West Cliff Drive that are intended to provide a unified design aesthetic for future projects and planning efforts.

In sum, while staff recognizes that armoring projects raise coastal resource concerns, staff also acknowledges that such measures are necessary to protect the West Cliff Drive corridor in these locations, including for the substantial public access benefits that it provides. The project, as crafted by the City and as conditioned by staff, is also consistent with the letter and intent of the Commission's recently adopted Beaches and Bluffs LCP update from earlier this year, which identified a series of measures to understand hazards threats, evaluate all feasible options to abate them, and to mitigate for any unavoidable project impacts. This project does just this. Therefore, staff recommends that the Commission approve a conditioned CDP for the proposed project and the motion is found on **page 5** below.

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CORRESPONDENCE
EX PARTE

MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission* ***approve*** *Coastal Development Permit Number 3-26-0524 pursuant to the staff recommendation, and I recommend a* ***yes*** *vote.*

Resolution to Approve CDP: *The Commission hereby approves Coastal Development Permit Number 3-26-0524 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.*

1. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

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

2. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Approved Development.** CDP 3-26-0524 authorizes the proposed development as described and shown in the proposed plans (titled "CDP Application for Permanent Authorization for West Cliff Drive Emergency Storm Damage Projects and a Road Realignment" and dated June 23, 2026, and dated received in the Coastal Commission's Central Coast District Office on June 24, 2026; see **Exhibit 3**), except that such development shall be modified as described/required below:

   a. **Surf Access Stairway Rehabilitation.** The Cowell and Indicator surf access stairways shall be renovated and rehabilitated in a similar manner as the recent renovations/rehabilitations of the Steamer Lane and upper Mitchell's Cove surf access stairways to address any concrete spalling, rusted handrails, and exposed rebar, and to eliminate the apron features at the base of both stairways.

   b. **Riprap Removal.** Riprap shall be removed at Mitchell's Cove and at the base of the Indicator and Cowell surf access stairways, shall be properly relocated or disposed of/stored at an appropriate inland location, and all affected areas shall be restored to natural beach/bluff conditions (see **Exhibit 4** for aerial extent of the riprap removal activities).

   c. **Debris Removal/Cleanup.** Concrete and other debris located on the bluff face, atop riprap revetments, and/or in the intertidal zone between Lighthouse Point and the Surfer Statue shall be removed, including but not limited to former concrete/aggregate pathway/roadway, remnant stairway pillars, etc.

   d. **Graffiti Abatement.** A graffiti abatement protocol intended to both deter and abate graffiti, including, at a minimum, identifying potential treatments (protective materials/coatings, surface texturing, etc.) and a responsible party to abate the graffiti (e.g., private contract, etc.).

   e. **Mitchell's Cove Retaining Wall Aesthetic Treatments.** The upper bluff retaining wall located approximately between 1030 and 1046 West Cliff Drive shall be visually enhanced to better blend in with the adjacent infill wall and sandstone colored Purisima Formation via resurfacing and coloring.

   f. **Doggy Mitt Stations.** At least one doggy mitt station shall be installed adjacent to the entrances to Its Beach and Mitchell's Cove.

   g. **Explore Expanded Parking Lot Hours.** The Permittee shall coordinate with State Parks through the West Cliff Shoreline Adaptation Management Plan (SAMP) process to explore expanded and consistent parking lot hours for all gated parking lots along West Cliff Drive (i.e., the two parking lots on the seaward side of the road (upcoast from Its Beach and at the Lighthouse) and the three lots on the inland side of West Cliff Drive near Lighthouse Point). At a minimum, the City shall coordinate with State Parks and seek to expand parking lot hours to enhance public access to the maximum extent feasible, where time-

limited parking (e.g. 4-hour limits) may be allowed where it enhances public access.

h. **Water Fountain/Water Bottle Refill Station.** The City shall pursue funding opportunities to install at least one combined water fountain/water bottle refill/doggy water bowl station between Natural Bridges State Park and Lighthouse Point, ideally located along the blufftop area adjacent to Mitchell's Cove.

i. **Public View and Public Access Enhancements.** The approved development includes development associated with the Executive Director-approved Public View and Public Access Enhancements (see Special Conditions 4 and 5).

j. **Future Repair, Maintenance, and Minor Modifications.** The approved development includes development associated with future repair, maintenance, and/or minor modifications consistent with Special Conditions 11 and 15.

All requirements above shall be enforceable components of this CDP, and the Permittee shall undertake development in conformance with this condition.

2. **Construction Plan.** PRIOR TO CONSTRUCTION, the Permittee shall submit two copies of a Construction Plan to the Executive Director for review and written approval. The Construction Plan shall, at a minimum, include the following:

   a. **Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall minimize impacts on public access, including public parking, and other coastal resources, including by maximizing use of the developed blufftop portions of the Permittee's property for construction staging and materials storage, and minimizing use of public use areas for construction-related purposes as much as possible. Special attention shall be given to siting and design construction areas in order to minimize impacts on the ambiance and aesthetic values of the West Cliff Drive recreational trail, including but not limited to public views across the site. Construction, including but not limited to construction activities and materials and equipment storage, shall be prohibited outside of such defined construction areas.

   b. **Construction Methods.** The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep construction areas separated from public properties and public use areas as much as feasible (including through use of unobtrusive fencing and/or other similar measures to delineate construction areas), including verification that equipment operation and equipment and material storage will not significantly degrade public views during construction. The Plan shall limit construction activities to avoid coastal resource impacts as much as possible.

   c. **Construction Timing/Lighting.** No work shall occur during weekends and/or during the summer peak months (i.e., from the Saturday of Memorial Day

weekend through Labor Day, inclusive), all work shall take place during daylight hours (i.e., from one-hour before sunrise to one-hour after sunset), and lighting of the work area is prohibited, unless, due to extenuating circumstances, the Executive Director authorizes such work or lighting in writing, and subject to all measures determined by the Executive Director to be necessary to ensure maximum coastal resource protection.

d. **Construction BMPs.** The Construction Plan shall identify the type and location of erosion control/water quality best management practices that will be implemented during construction to protect coastal water quality and related coastal resources, including at a minimum all of the following:

    1. **Runoff Protection.** Silt fences, straw wattles, and equivalent apparatus shall be installed at the perimeter of the blufftop portion of the construction sites to prevent construction-related runoff and/or sediment from discharging from the construction areas, and/or entering into storm drains or otherwise offsite. Similar apparatus shall be applied on the beach for the same purpose when potential runoff is anticipated (and removed otherwise). Special attention shall be given to appropriate filtering and treating of all runoff, and all drainage points, including storm drains, shall be equipped with appropriate construction-related containment equipment.

    2. **Equipment BMPs.** Equipment washing, refueling, and/or servicing shall take place at an appropriate off-site location to prevent leaks and spills of hazardous materials at the project site.

    3. **Good Housekeeping.** The construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the project site; etc.).

    4. **Erosion and Sediment Controls.** All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday.

e. **Intertidal Construction.** Grading of intertidal areas is prohibited, except removal of existing concrete, riprap, and rubble is allowed in these areas. Best management practices shall be provided to avoid impacts to marine resources during construction.

f. **Rubber-tired Construction Vehicles.** Only rubber-tired construction vehicles are allowed on the beach, except tracked vehicles may be used if the Executive Director determines that they are required to safely carry out construction, and subject to all measures determined by the Executive Director to be necessary to ensure maximum coastal resource protection. When transiting on the beach, all such vehicles shall remain as close to the bluff edge as possible and avoid

contact with ocean waters.

g. **Construction Material Storage.** All construction materials and equipment placed seaward of the bluffs during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from these areas by sunset each day that work occurs, except for necessary erosion and sediment controls and/or construction area boundary fencing where such controls and/or fencing are placed as close to the toe of the coastal protection/bluff as possible, and are minimized in their extent.

h. **Restoration.** All sandy beach and other public recreational use areas and all beach/shoreline access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any native materials impacted shall be filtered as necessary to remove all construction debris.

i. **Construction Site Documents.** The Construction Plan shall provide that copies of the signed CDP and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times, and that such copies are available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the CDP and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.

j. **Construction Coordinator.** The Construction Plan shall provide that a construction coordinator be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and that their contact information (i.e., address, phone numbers, email address, etc.) including, at a minimum, a telephone number (with message capabilities) and an email address will be made available 24 hours a day and monitored regularly for the duration of construction, is conspicuously posted at the job site where such contact information is readily visible from public viewing areas while still protecting public views as much as possible, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the contact information (address, email, phone number, etc.) and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director on at least a weekly basis.

k. **Construction Specifications.** The construction specifications and materials shall include appropriate penalty provisions that require remediation for any work done inconsistent with the terms and conditions of the CDP.

l. **Notification.** The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least three working days in

advance of commencement of construction, and immediately upon completion of construction.

All requirements above and all requirements of the Executive Director-approved Construction Plan shall be enforceable components of this CDP. The Permittee shall undertake development in conformance with this condition and the Executive Director-approved Construction Plan.

3. **As-Built Plans.** WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, the Permittee shall submit two copies of As-Built Plans to the Executive Director for review and written approval showing all development authorized by this CDP and all property lines. The As-Built Plans shall be substantially consistent with the approved development identified in **Special Condition 1**. The As-Built Plans shall include color photographs (in .jpg format) that clearly show the as-built project, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall be from upcoast, seaward, and downcoast viewpoints on the beach and/or bedrock platform, and from a sufficient number of viewpoints as to provide complete photographic coverage of the permitted shoreline armoring, public accessways, and landscaping. Photographs shall be at a scale that allows comparisons to be made with the naked eye between photographs taken in different years and from the same vantage points. The As-Built Plans shall include vertical and horizontal reference markers from inland surveyed benchmarks for use in future monitoring efforts and shall detail all work undertaken to the armoring including, at a minimum, the approximate number of riprap boulders removed, including descriptions of where the boulders were collected from and disposed of/stored at; descriptions of all excavation, removal, and restoration activities; and descriptions of the materials, locations, and techniques used to facilitate construction access. The As-Built Plans shall be submitted with certification by a licensed civil engineer with experience in coastal structures and processes, acceptable to the Executive Director, verifying that the armoring has been constructed in conformance with the approved development.

4. **Public View Enhancements.** Through the ongoing development of the West Cliff Shoreline Adaptation and Management Plan (SAMP), the Permittee shall identify a list of public view enhancements that can be applied within the West Cliff Drive corridor (extending from the entrance to Natural Bridges State Park to the Beach Street intersection) to mitigate for the public view impacts – both during and post-construction – resulting from the approved development. The list of enhancements shall be submitted to the Executive Director for review and written approval by November 30, 2027, and the Permittee shall implement such measures as directed by such approval. Examples of such measures may include removing defunct infrastructure, excess pavement, errant rock riprap, and unnecessary signs; enforcing existing ordinances to underground private utilities; supporting ongoing efforts to remove non-native and/or invasive plant species and revegetating with native (to the West Cliff Drive area) bluff plantings that are salt and drought tolerant; where feasible, adding additional landscaping which shall be chosen and planted in such a way as to cover and trail over the uppermost reaches of armoring as much as

possible at maturity in order to help provide visual softening of the armoring features; consolidating 'volunteer' blufftop/bluff trails (and restoring any redundant trails to natural conditions) while maintaining similar levels of public access; consolidating and placing signage where least visually intrusive; creating/improving blufftop overlook spaces (including with benches, congregation space, etc.); improving access to rock shelf areas for viewing; and similar measures that enhance the viewshed and/or the viewing experience. The list of enhancements shall include project descriptions, conceptual and/or project plan sheets as applicable, cost estimates and funding mechanisms, and an estimated implementation timeline.

All requirements above and all requirements of the Executive Director-approved list of public view enhancements shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the Executive Director-approved list of public view enhancements.

5. **Public Access Enhancements.** Through the ongoing development of the West Cliff Shoreline Adaptation and Management Plan (SAMP), the Permittee shall identify a list of public access enhancements that can be applied within the West Cliff corridor (extending from the entrance to Natural Bridges State Park to the Beach Street intersection) to mitigate for the public access impacts – both during and post-construction – resulting from the approved development. The list of enhancements shall be submitted to the Executive Director for review and written approval by November 30, 2027, and the Permittee shall implement such measures as directed by such approval. Such measures may include providing additional amenities (e.g., picnic tables, benches, overlook areas, bicycle parking); better separating pedestrian users of the recreational trail from other transportation corridor users (e.g., faster moving bicycles, scooters, etc.); enhancing beach and shoreline access (e.g., adding stairways and trails for safer access; consolidating 'volunteer' blufftop/bluff trails while maintaining similar levels of public access; and similar measures that enhance the public access experience. The list of enhancements shall include project descriptions, conceptual and/or project plan sheets as applicable, cost estimates and funding mechanisms, and an estimated implementation timeline.

   All requirements above and all requirements of the Executive Director-approved list of public access enhancements shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the Executive Director-approved list of public access enhancements.

6. **West Cliff Corridor Design Guidelines.** The Permittee shall continue to pursue development of corridor-wide design guidelines for West Cliff Drive consistent with the City's adopted planning initiatives, including the Five-Year Roadmap and future shoreline adaptation efforts. The purpose of the West Cliff Corridor Design Guidelines is to provide the City with a consistent vision and direction for design and aesthetics for projects along the West Cliff Corridor (extending from the entrance to Natural Bridges State Park to the intersection with Beach Drive). The Guidelines shall provide for a unified design aesthetic for both City-owned infrastructure and natural features within the West Cliff Drive Corridor, all with the goal of seamlessly integrating signage, landscaping, and public-serving amenities into the natural

environment, protecting ocean views, and defining the corridor with a distinct and consistent sense of place as much as possible.

The Guidelines will allow the City to develop, permit, and implement public plans more swiftly and consistently (in the context of emergencies, phased adaptation, and capital projects), and in a manner that both acknowledges the area's special public view access sensitivities, and protects and enhances coastal resources. The Guidelines shall identify preferred siting and design for landscaping, overlooks, railings/fencing, signs, barricades, wayfinding, retaining walls, lighting, tarping, benches, bicycle facilities, overlook areas, trails, drainage, interpretive elements, public amenities, and similar features, with the goal of creating a cohesive design aesthetic, utilizing natural materials and coloring as much as possible, and ensuring that the design aesthetic blends in with the natural surroundings. The Guidelines may include photos, renderings, and written descriptions of each development feature, and to the extent multiple options are needed (for example, for drainage outfalls, lighting, and fencing depending upon site-specific constraints), the Guidelines shall detail the selection criteria/methodology to ensure seamless and consistent selection practices.

Upon securing funding for the effort, the Permittee shall initiate preparation of the Guidelines and shall consider opportunities to improve corridor-wide consistency in landscaping, signage, overlooks, amenities, bicycle facilities, and related visitor-serving improvements. WITHIN FIVE YEARS OF CDP APPROVAL, the Permittee shall submit the Guidelines to the Commission as an LCP amendment or coastal permit, where it shall be clear that the Guidelines shall govern public infrastructure and natural feature siting and design along the West Cliff Drive Corridor.

7. **Habitat and Mitigation Monitoring Plan.** NO LESS THAN 90 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit, for the review and written approval of the Executive Director, a final revised Habitat Mitigation and Monitoring Plan (HMMP) for the compensatory mitigation of any impacted wetlands.

   a. **HMMP Contents.** The HMMP shall provide for, at a minimum: description of relevant development impacts; mitigation goals and objectives; description of existing habitat at mitigation sites; mitigation design; site preparation and best management practices; erosion control measures; invasive species control plan; revegetation plan, including the use of locally sourced native stock; irrigation plan; sampling design; interim and final performance assessment and success criteria; annual and final reporting schedule; and adaptive management measures in the event of non-performance.

      1. **Mitigation Ratios.** Permanent impacts shall be mitigated at a minimum ratio of 4:1 for wetlands, where these base ratios assume mitigation as habitat creation or substantial restoration. Alternatively, enhancement or preservation strategies may be proposed at no less than double or triple the base ratio, respectively.

      2. **Success Criteria**. Fixed or relative, quantitative interim and final success criteria relevant to the mitigation habitat types should be identified and

rationale described. Criteria should include target native cover where appropriate and that mitigation sites shall be maintained over the monitoring period with less than 5% cover of Cal-IPC ranked invasive species with no more than 1% of that being attributed to invasive species ranked as “high” by Cal-IPC.

b. Reporting. The following reports shall be submitted separately from the HMMP on the following timelines:

1. **Additional Mitigation for Unanticipated Onsite Impacts.** Within 90 days of completion of construction, a final “as-built” onsite habitat impact statement verifying that the extent and nature of actual construction impacts does not exceed the projected impacts listed in the final HMMP shall be submitted to the Executive Director. If the Executive Director determines the actual project impacts calculated in the application materials substantially differ from anticipated impact amounts projected in the approved final HMMP, the Permittee shall submit a revised HMMP and/or supplemental mitigation plan for the review and approval of the Executive Director proposing additional mitigation consistent with the mitigation ratios above for the additional habitat impacts. The revised or supplemental plan shall be processed as an amendment to this CDP, unless the Executive Director determines that no amendment is legally required.

2. **Annual Monitoring and Final Monitoring Report.** Annual reports documenting site conditions in comparison to interim success criteria shall be submitted by December 31 of each year for at least five years or three years following the cessation of remedial or maintenance measures except weeding, whichever is longer. In addition to annual monitoring reports, submitted by December 31 of each year, a final monitoring report for Year 5 shall be submitted for the review and approval of the Executive Director at the conclusion of all onsite mitigation efforts consistent with the monitoring schedule in the final approved HMMP. The final monitoring report must evaluate whether the revegetated areas conform to the goals, objectives, and success criteria set forth in the approved final HMMP. The final monitoring report shall summarize prior reports and provide a timeline of the overall progress and success and include sufficient detail to evaluate comprehensive mitigation compliance with the mitigation program and specified goals and success criteria set forth in the approved final HMMP. Should the project not meet success criteria, a plan must be included to propose adaptive management actions to meet the success criteria for Executive Director for review and approval.

c. Consistency. The Permittee shall undertake development in accordance with the approved final HMMP. 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 Commission approved amendment to this CDP unless the Executive Director determines that no amendment is legally required.

All requirements above and all requirements of the Executive Director-approved Habitat Mitigation and Monitoring Plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the Executive Director-approved Habitat Mitigation and Monitoring Plan.

8. **Authorization Duration and Other Provisions.**

   a. **CDP Authorization Duration.** This CDP shall authorize the approved development for only as long as all approved and required public recreational access areas and features (i.e., West Cliff Drive and its associated pedestrian promenade and related recreational features) remain in good condition and available for public use, and only as long as the Permittee is in compliance with all terms and conditions of this CDP. In the event the CDP no longer authorizes the approved development, then the Permittee shall remove the approved armoring component of the approved development and appropriately restore the affected area to natural conditions subject to Executive Director approval of a removal and restoration plan that minimizes any adverse impacts to coastal resources.

   b. **Armoring Modifications.** If the Permittee applies for a new CDP or CDP amendment to modify the armoring, or to perform repair work affecting 50 percent or more of the armoring, such proposed project shall be considered a replacement armoring project that shall be evaluated as if a new proposed armoring structure against all applicable Coastal Act provisions, including, if approved, requiring mitigation for all unavoidable coastal resource impacts.

   c. **Amendment for Impacts Beyond 20 Years.** The approved armoring herein has mitigated its coastal resource impacts for 20 years, through November 4, 2046, but not past that point. If the Permittee intends to keep the approved armoring in place after November 4, 2046, the Permittee shall submit a complete CDP amendment application prior to January 1, 2046 that evaluates the coastal resource impacts associated with retention of the armoring beyond November 4, 2046 (including in relation to any potential modifications to the armoring that may be part of such CDP amendment application) that have not already been mitigated for through this CDP, if any, and that includes commensurate mitigation for those coastal resource impacts.

   d. **No Future Seaward Encroachment.** By acceptance of this CDP, the Permittee acknowledges and agrees, on behalf of themselves and all successors and assigns, that no future enhancement, reinforcement, or any other activity affecting the shoreline armoring approved pursuant to this CDP, as described and depicted on the approved As-Built Plans (see **Special Condition 3**), shall result in any encroachment seaward of the authorized footprint of the shoreline armoring. By acceptance of this CDP, the Permittee waives, on behalf of themselves and all successors and assigns, any rights to such activity that may exist under Coastal Act Section 30235, the City of Santa Cruz Local Coastal Program, or other applicable laws.

9. **Coastal Hazards Risk.** By acceptance of this CDP, the Permittee acknowledges

and agrees, on behalf of themselves and all successors and assigns, to all of the following:

a. **Coastal Hazards.** That the site is subject to coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, tsunami, tidal scour, coastal flooding, landslides, bluff and geologic instability, bluff retreat, liquefaction and the interactions among those hazards, many of which will worsen with future sea level rise.

b. **Assume Risks.** To assume the risks to the Permittee and the property that is the subject of this CDP of injury and damage from such coastal hazards in connection with this permitted development.

c. **Waive Liability.** To unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such coastal hazards.

d. **Indemnification.** To indemnify and hold harmless the Coastal Commission, its officers, agents, and employees with respect to the Commission's approval of the development 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 coastal hazards.

10. **Monitoring and Reporting.** Consistent with LCP Beaches and Bluffs Chapter Shoreline and Bluffs Change Monitoring provisions, the Permittee shall ensure that the condition and performance of the approved as-built project are regularly monitored and maintained. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact future performance of the armoring or public access features, shall identify any structural or other damage or wear and tear requiring repair and/or maintenance (subject to **Special Condition 11** below), and shall identify remedial measures necessary to maintain the armoring and any access features in a structurally sound manner and in their approved state. The monitoring evaluation shall also identify any changes relative to the surveyed vertical and horizontal reference markers. The armoring shall be monitored at least once every 3 years and after any significant storms by a licensed civil engineer with experience in coastal structures and processes to ensure structural and cosmetic integrity, including evaluation of movement and sloughing. Monitoring reports covering the above-described evaluations, shall be submitted to the Executive Director for review and approval at six year intervals by May 1 of each sixth year measured from the year of approval of this CDP (with the first report due May 1, 2032, and subsequent reports due May 1, 2038, May 1, 2044, and so on) for as long as any portion of the approved development exists at this location. The reports shall identify the existing configuration and condition of the armoring, public pathway, landscaping, and road, at a minimum; shall recommend actions necessary to maintain these project elements in their approved and/or required state; and shall include photographs with the date and time of the photographs and the location of each photographic

viewpoint noted on a site plan, where such photographs shall match to the photographic locations in the As-Built Plans (see **Special Condition 3**). Actions necessary to maintain the approved as-built project in a structurally sound manner and in its approved and/or required state shall be implemented within 30 days of Executive Director approval of each monitoring report, unless a different time frame for implementation is identified by the Executive Director.

11. **Future Repair and Maintenance Authorized.** This CDP authorizes future repair and maintenance as described in this special condition. The Permittee acknowledges and agrees on behalf of themselves and all successors and assigns that it is the Permittee's responsibility to: (a) maintain the approved development in a structurally sound manner, visually compatible with the shoreline surroundings, and in its approved and required state, including with respect to all camouflaging/surfacing; (b) retrieve any failing portions of the approved development or related improvements that might otherwise substantially impair the use, aesthetic qualities, or environmental integrity of the approved development's public recreational access areas and features, as well as the beach, shoreline, and/or ocean; and (c) regularly inspect all approved development components for signs of failure and/or structural issues. Any such maintenance-oriented development associated with the approved development shall be subject to the following:

    a. **Repair and Maintenance.** "Repair" and/or "maintenance," as used in this special condition, means development that would otherwise require a CDP whose purpose is to maintain the armoring, access features, and landscaping in its approved and/or required state. Repair and/or maintenance authorized under this CDP does not include physical enlargement and/or seaward encroachment of the approved armoring.

    b. **Other Agency Approvals.** The Permittee acknowledges that these maintenance stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.

    c. **Maintenance Notification.** At least 30 days prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include: (1) a detailed description of the maintenance event proposed; (2) any plans, engineering and/or geology reports describing the event; (3) a construction plan that complies with all aspects of the approved construction plan (see Special Condition 2); (4) other agency authorizations; and (5) any other supporting documentation describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the maintenance event complies with this CDP. If Commission staff has not given the Permittee a written response within 30 days of the notification being received in the Central Coast District Office, the maintenance shall be authorized as if planning staff affirmatively indicated that the maintenance complies with this CDP. The notification shall clearly indicate that maintenance is proposed pursuant to this

CDP, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the CDP. In the event of an emergency requiring immediate maintenance, the notification of such emergency shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.

d. **Maintenance Coordination.** Maintenance events shall, to the degree feasible, be coordinated with other maintenance events proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach and bluff area, beach access points, and the West Cliff Drive recreational trail and corridor. As such, the Permittee shall make reasonable efforts to coordinate the Permittee's maintenance events with other adjacent events, including adjusting maintenance event scheduling as directed by planning staff of the Coastal Commission's Central Coast District Office.

e. **Restoration.** The Permittee shall restore all areas (including blufftop, bluff, and beach areas and all access points) impacted by construction activities to their pre-construction condition or better within three days of completion of construction. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of restoration activities to allow for a site visit to verify that all beach-area restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore blufftop, bluff, beach areas, or access points to their pre-construction state, such measures shall be implemented as quickly and reasonably as possible.

f. **Noncompliance Provision.** If the Permittee is not in compliance with the terms and conditions of any Coastal Commission CDPs (including this CDP) or other coastal authorizations that apply to the subject property, or are otherwise in violation of the Coastal Act, at the time that a maintenance event is proposed, then the maintenance event that might otherwise be allowed by the terms of this future maintenance condition shall not be allowed by this condition until the Permittee is in full compliance with all terms and conditions of said CDPs or other coastal authorizations and the Coastal Act.

g. **Emergency.** In addition to the emergency provisions set forth in subsection (c) above, nothing in this condition shall affect the emergency authority provided by Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

h. **Duration of Covered Maintenance.** Future maintenance under the CDP may be allowed subject to the above terms throughout the duration of the authorization (see **Special Condition 8**) subject to Executive Director review and written approval every 6 years (with the first such approval due by November 4, 2032, and subsequent approvals by November 4, 2038, November 4, 2044, and so on)

to verify that there are not changed circumstances, understandings, or other issues associated with such allowance for maintenance events that necessitate re-review. It is the responsibility of the Permittee to request Executive Director approval prior to the end of each 6-year maintenance period, and maintenance can only be carried out beyond November 4, 2032 (and beyond subsequent six-year periods) pursuant to these maintenance provisions if (1) the Permittee requests an extension prior to the end of each 6-year maintenance period; and (2) the Executive Director extends the maintenance term in writing. The intent of the CDP is to allow for 6-year extensions of the maintenance term for as long as the approved development remains authorized unless there are changed circumstances, understandings, or other issues that may affect the consistency of this maintenance authorization with Coastal Act Chapter 3 and thus warrant a re-review of this maintenance condition. The Permittee shall maintain the approved development in its approved and required state consistent with the terms and conditions of these CDPs.

i. The intent of this CDP is to allow for maintenance for as long as the approved development remains authorized, including as identified in **Special Condition 8**, unless, in the opinion of the Executive Director, there are changed circumstances, understandings, or other issues that may affect the consistency of this maintenance authorization with the policies of Chapter 3 of the Coastal Act, in which case the Executive Director can suspend these maintenance provisions at their discretion.

12. **Archaeological and Tribal Cultural Resource Protection.** The Permittee shall undertake the approved project in compliance with the following measures to protect archaeological and/or tribal cultural resources to the maximum extent feasible.

    a. Notification. At least one month prior to commencement of any additional ground-disturbing construction activities, the Permittee shall (1) notify the representatives of Native American Tribes listed on an updated Native American Heritage Commission (NAHC) contact list; (2) invite all Tribal representatives on that list to be present and to monitor ground-disturbing activities; and (3) arrange for any invited Tribal representative that requests to monitor and/or a qualified archaeological monitor to be present to observe project activities with the potential to impact archaeological and/or tribal cultural resources.

    b. Monitoring. A tribal monitor, approved by relevant tribe(s), shall be on site to monitor all activities with the potential to impact archaeological and/or tribal cultural resources, including all ground-disturbing activities. The monitor(s) shall have experience monitoring for archaeological resources of the local area during excavation projects, be competent to identify significant resource types, and be aware of recommended tribal procedures for the inadvertent discovery of tribal cultural and/or archaeological resources and/or human remains.

    c. Discovery Protocol. If any tribal cultural deposits are discovered during the course of the project, all construction within 200 feet of such deposits shall cease and shall not re-commence until a qualified cultural resource specialist (which

could be a person identified in subpart (b), above), in consultation with the relevant tribe(s), analyzes the significance of the find and, if deemed significant, prepares a supplementary archaeological plan for the review and approval of the Executive Director that evaluates and provides suggested measures related to the discovery. The Executive Director shall review the plan and either: (1) approve it and determine that its recommended changes to the project or mitigation measures do not necessitate an amendment to this CDP, or (2) determine that the changes proposed therein necessitate a CDP amendment. The location of any and all identified archaeological and tribal cultural resources shall be kept confidential, and only those with a "need to know" shall be informed of their locations.

d. **Human Remains.** Should human remains be discovered on-site during the course of the project, immediately after such discovery, the on-site archaeologist and/or tribal monitor shall notify the Santa Cruz County Coroner within 24 hours of such discovery, and all construction activities shall be temporarily halted until the remains can be identified. If the County Coroner determines that the human remains are those of a Native American, the Coroner shall contact the NAHC within 24 hours, pursuant to Health and Safety Code Section 7050.5. The NAHC shall deem the Native American most likely descendant (MLD) to be invited to participate in the identification process pursuant to Public Resources Code Section 5097.98. The Permittee shall comply with the requirements of Section 5097.98 and work with the MLD person(s) to discuss and confer with the descendants all reasonable options regarding the descendants' preference for treatment. Within 5 calendar days of notification to NAHC, the Permittee shall notify the Coastal Commission's Executive Director of the discovery of human remains. The Executive Director shall maintain confidentiality regarding the presence of human remains on the project site.

13. **Public Rights.** The Coastal Commission's approval of this CDP shall not constitute a waiver of any public rights that may exist on the property. The Permittee shall not use this CDP as evidence of a waiver of any public rights that may exist on the property now or in the future.

14. **Other Agency Approvals.** The Permittee shall provide to the Executive Director copies of all permits, permissions, or other required authorizations from any entity from which that is required for the approved development (e.g., U.S. Army Corps of Engineers, Monterey Bay National Marine Sanctuary, Central Coast Regional Water Quality Control Board, State Lands Commission, and California State Parks).

15. **Future Permitting/Minor Modifications.** Any and all future proposed development related to this project, this project site, and/or this CDP shall be subject to the Coastal Commission's continuing CDP jurisdiction. Additional and/or modified development that is determined by the Executive Director to: 1) fall within the overall scope and intent of this CDP; 2) be consistent with the City of Santa Cruz LCP and the Coastal Act; and 3) not have any significant adverse impacts to coastal resources, may be allowed subject to Executive Director approval. Minor adjustments to the terms and conditions of this CDP may be allowed by the

Executive Director if such adjustments: (1) are deemed reasonable and necessary; (2) do not adversely impact coastal resources; and (3) do not legally require a CDP amendment. Any development related to this project and/or this CDP that the Executive Director determines does not meet such criteria shall require a separate CDP or a CDP amendment, as directed by the Executive Director.

16. **Liability for Costs and Attorneys' Fees.** The Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees (including but not limited to such costs and attorneys' fees that are: (1) charged by the Office of the Attorney General; and/or (2) required by a court) that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Coastal Commission and/or its officers, employees, agents, successors and assigns challenging the approval or issuance of this CDP, the interpretation and/or enforcement of the CDP conditions, or any other matter related to this CDP. The Permittee shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs/fees. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission and/or its officers, employees, agents, successors and assigns. By acceptance of this CDP and its terms and conditions, the Permittee irrevocably agrees to this obligation, which shall be continuing in nature and remain in full force and effect regardless of whether this CDP approval is invalidated as the result of the litigation contemplated by this condition or otherwise changed in any way.

3. FINDINGS AND DECLARATIONS

A. Project Location/Background

The proposed project spans multiple locations along West Cliff Drive, specifically on the bluff, at the toe of the bluff, on the beach, and on the road and pathway across from, east to west, 800, 920, 932, 944, 960, 1004, 1016, and 1030 West Cliff Drive, from Its Beach through the intersection of David Way in the City of Santa Cruz. West Cliff Drive is located on the upcoast edge of the City and hugs the shoreline extending from near the entrance to the Santa Cruz Municipal Wharf all the way to Natural Bridges State Beach, a distance of about three miles. West Cliff Drive is located atop roughly 30- to 40-foot-tall bluffs that extend mostly vertically down to the ocean with a few popular pocket beaches along its route and wider sandy beaches at its western and eastern limits, namely Natural Bridges State Beach and Cowell Beach. For the most part, the West Cliff Drive corridor is located almost immediately adjacent to the blufftop edge and thus it provides an incredible ocean and coastal vista, including because the residential neighborhoods of the City's westside are located inland of it and there are very few structures seaward of the road. A meandering recreational multiuse path extends along the seaward side of the road for its entire length, and this path is heavily used by residents and visitors, both in terms of the path itself and for access to surf spots and beach areas along West Cliff Drive. Free public parking is provided in a series of parking bays and lots extending from the street, as well as on-street parallel and perpendicular parking along portions of West Cliff Drive itself and along adjacent neighborhood streets. West Cliff Drive is one of the most significant coastal visitor

destinations in the City of Santa Cruz and the northern Monterey Bay.

West Cliff Drive is primarily oriented east to west. The world-famous Steamer Lane surfing area is located just downcoast of the project area and is a very popular and significant public recreational access and visitor-serving destination. While surfing at Steamer Lane is popular year-round, the largest and most consistent waves occur during the fall and winter seasons.[1] And while these waves can present ideal surf conditions, they can also exacerbate coastal erosion along the entirety of West Cliff Drive, where the natural geologic landscape is made up of softer, erosion-prone Purisima rock atop harder Santa Cruz mudstone. Large winter storm and swell events see shifting winds and wave patterns, leading to instances of episodic erosion, which has only increased in frequency as the climate has shifted.

The City of Santa Cruz has constructed shoreline protective structures along West Cliff Drive since the 1960s. In particular, severe winter storms of 1977-78, 1979-80 and 1982-83 resulted in significant erosion damage, and multiple rock revetment structures were reconstructed/expanded and/or new rock revetments were constructed in a series of major erosion control efforts by the City.[2] In the early 2000s, continued erosion of the bluff and bedrock prompted additional efforts to protect the roadway by the City, including the placement of additional riprap.[3] Thus, much of West Cliff Drive is armored (some of it pre-coastal, some of it permitted, and some of it unpermitted); however, significant erosion and storm damage threats remain, and adapting and protecting West Cliff will be ongoing well into the future.[4] The City estimates that approximately 50% of

[1] During these times, winter storms emanating in the Aleutian Islands migrate across the Pacific Ocean into the Alaskan Gulf, creating gale force winds that generate very large ocean-going swells. As these swells travel down the west coast, the raw wave energy is groomed into sets of waves of equal height and traveling at similar speeds. In general, a distance of 1,000 nautical miles is required to groom raw storm energy into good quality surfing waves. The typical pattern of the fall and winter storms puts the Central Coast of California at an optimal distance to receive the energy of these storms in the form of well-organized surfing waves.

[2] See, for example, CDPs P-80-288, 3-82-272, 3-90-111, 3-90-111-A1, 3-90-111-A2, 3-STC-91-22, 3-STC-95-017, 3-STC-98-013, and 3-STC-98-018, as well as emergency CDPs (ECDPs) 3-93-16-G, 3-03-004-G, and G-3-14-0019.

[3] While the City received emergency permit authorization for several of these projects (see ECDPs 3-93-16-G, 3-03-004-G, and G-3-14-0019) and applied for follow-up CDPs (see CDPs 3-03-033 and 3-14-1467) for two of those projects, those CDPs were never approved, and applications were never submitted in other cases, and thus all such riprap along West Cliff associated with the above ECDPs – including within the current project footprint – is unpermitted.

[4] The City has numerous related adaptation planning and implementation efforts related to West Cliff Drive underway. Most notably, in April of this year, the Commission certified a new “Beaches & Bluffs Hazards Adaptation” chapter into the City’s LCP (see LCP-3-STC-25-0543) to guide adaptation across the City’s shoreline including the development proposed to be authorized via the subject CDP. Relatedly, and partially in response to the same storm damage that led to the emergency armoring that was constructed between 2023-2025 and proposed to be authorized here, the City undertook a “West Cliff 50-Year Vision” and a “West Cliff 5-Year Roadmap” to help shape a longer-term adaptation vision for the West Cliff corridor and to identify projects to implement in the immediate (i.e., 5-year) term, some of which are proposed to be authorized via the subject CDP.

The City is also working on a variety of other measures, including a “Coastal Change Monitoring Network Design/Deployment” effort that will allow the City to monitor shoreline change in real time to better inform triggers for various adaptation strategies. In addition, the City completed a city-wide “Living Shoreline

the corridor is protected by shoreline armoring (primarily in the form of seawalls and riprap) of varying ages and conditions.

In the winter storms of 2023-2024 and 2024-2025 severe storm surges and swells damaged several sections of the road and public recreational trail along West Cliff Drive, as well as destabilized several existing shoreline armoring structures fronting the road and pathway. Subsequent wave action and storm runoff further eroded sections of the bluff, resulting in additional damage and destroying portions of the roadway and pathway, all of which increased the risk of complete failure and loss of the roadway, pathway, underground utilities, and associated public infrastructure. To protect public safety, the City closed these portions of West Cliff Drive and the recreational trail to the public that were damaged in the storms. Subsequently, the City submitted a request to the Coastal Commission for an emergency coastal development permit (ECDP) to repair the road and pathway, and to repair and improve the shoreline protection fronting these areas.[5] It was determined by Commission staff that the proposed emergency projects qualified for ECDPs under the Coastal Act because there was "an immediate threat to life, health, property or essential public services" and prompt action was necessary to protect the road, pathway, and public utilities in the case of each of the three ECDPs ultimately issued.[6]

Each site in this case is located seaward of the portion of West Cliff Drive that is backed on its inland side by private homes other than the '800 West Cliff' component, where West Cliff at this location is backed by the field portion of Lighthouse Field State Beach. Starting upcoast, the project areas across from 1030, 1016, and 1004 West Cliff Drive include a mixture of riprap, natural bedrock, and sandy pocket beaches, as well as a culvert that connects the seasonal Bethany Curve watercourse to the ocean. Available data suggest that the riprap fronting this site was partially placed in the 1960s with additional rock placed in the 1980s. The project areas across from 960, 944, 932, and 920 West Cliff Drive include a mixture of riprap, a seawall, and natural bedrock, with little to no beach space except at extremely low tides. In this area, available data suggests that riprap was placed here in the 1980s and early 2000s; a seawall was

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Nature-Based Adaptation Strategies, and Sand Feasibility" grant to better understand the feasibility of sand management and nature-based adaptation strategies and develop three priority nature-based adaptation projects to implement. The City subsequently received funding from the National Oceanic and Atmospheric Administration to advance the three priority projects through to design, permitting, and construction, and the City is actively pursuing other funding to implement other adaptation projects across the West Cliff corridor specifically—some of which were identified through the nature-based adaptation strategies planning grant. The City is also actively working on the development of a Shoreline Adaptation Management Plan (SAMP) for the West Cliff corridor specifically, which will identify another suite of adaptation projects to implement in the near and medium term.

Finally, the City is also undertaking a "Coastal Infrastructure Funding & Financing" study and a separate "Lighthouse Point Hazard Analysis" to better understand their options for funding adaptation, the feasibility of various adaptation alternatives, and potential coastal hazard threats to Lighthouse Point, a prominent mid-point destination along the West Cliff corridor.

[5] See ECDPs G-3-23-0072 (West Cliff Drive Storm Repair), G-24-0036 (Bethany Curve Culvert), and G-3-24-0065 (West Cliff Drive Sinkhole Fill and Secant Pile Wall).

[6] In addition, the City received federal funding to conduct the necessary repairs from the Federal Highway Administration and that funding had a finite timeline to complete the repairs.

permitted in 1990s and erected in the early 2000s.[7] Finally, the project area across from 800 West Cliff Drive includes natural bedrock, sandy pocket beaches (including the popular dog beach 'Its Beach'), riprap (placed in the 1980s),[8] and a 20-minute parking lot managed by State Parks.

See **Exhibit 1** for location maps and **Exhibit 2** for photos of the areas in question.

B. Project Description

The proposed project has multiple components, which can be understood in three main parts:

ECDP-Related Development

A request to authorize development already completed pursuant to emergency CDPs G-3-23-0072 (West Cliff Drive Storm Repair), G-3-24-0036 (Bethany Curve Culvert), and G-3-24-0065 (West Cliff Drive Sinkhole Fill and Secant Pile Wall) consisting of:

- **920 West Cliff Drive.** Installation of a new approximately 66-foot-long, 13-foot-wide, and 18-foot-tall upper bluff gravity retaining seawall, surfaced with molded concrete, as well as new curbs and gutters, fencing, resurfacing of the road and pathway, and approximately 932 cubic yards of restacked riprap on either end of the seawall.

- **932 West Cliff Drive**. Installation of an approximately 130-foot-long, 14-foot-wide, and 18-foot-tall mid-bluff gravity retaining seawall surfaced with molded concrete, as well as new curbs, gutters, fencing, resurfacing of the road and pathway, and approximately 230 cubic yards of restacked riprap on either end of the seawall.

- **944 West Cliff Drive.** Excavation of a sinkhole, installation of a drainage system, concrete slurry fill (approximately 612 cubic yards), restacking of 417 cubic yards of riprap, placement of 250 tons of riprap, and resurfacing of the public pathway and road, as well as new fencing.

- **960 West Cliff Drive.** Installation of a new approximately 27-foot-long and 16-foot-tall mid-bluff pile supported seawall, a new approximately 59-foot-long and 6-foot-tall mid-bluff secant pile seawall surfaced with molded concrete, removal of approximately 5 linear feet of the existing outflanked upper bluff soil nail seawall, as well as repairs to the pathway and road, and new fencing.

- **1004 West Cliff Drive (Bethany Curve Culvert).** Replacement of a damaged single culvert with a new double culvert and headwalls with wider openings, molded concrete surfacing, and barriers, fill of a sea cave with approximately 1,120 cubic yards of grouted riprap, road and pathway elevation and realignment (approximately one foot higher and one foot landward), construction of an approximately 60-foot-long, 10-foot-wide, and 12-feet-high cantilevered mid-bluff retaining seawall, and removal of approximately 1,900 cubic yards of riprap between this site and the 1016

[7] See CDP 3-90-111-A2.

[8] The City has identified riprap removal at Its Beach as a priority project through the West Cliff SAMP process referred to earlier, and is actively pursuing funding to undertake such riprap removal.

West Cliff Drive site.

- **1016 West Cliff Drive.** Installation of a new approximately 110-foot-long, 10-foot-wide, and 12.5-foot-tall gravity retaining seawall down to beach level surfaced with textured shotcrete backfilled with approximately 782 cubic yards of 1- to 8-ton boulders, as well as new curbs, gutters, and resurfacing of the road and pathway.

- **1030 West Cliff Drive**. Installation of a new approximately 13-foot-long, 10-foot-wide, and 15-foot-tall cantilevered upper bluff retaining seawall surfaced with molded concrete, partially backfilled with approximately 165 cubic yards of 6- to 8-ton boulders and approximately 413 cubic yards of sand and concrete slurry, as well as an additional 312-foot-long sculpted shotcrete wall in front of and below the cantilevered retaining seawall, new fencing, and road/pathway resurfacing.

Proposed Additional Development

A request to authorize additional development not yet undertaken consisting of:

- **800 West Cliff Drive.** Realignment of approximately 600 linear feet of the West Cliff Drive road and pathway at the western end of Lighthouse Field State Beach (with the road shifted approximately 60 feet inland and the pathway approximately 30 feet inland), improvements to stormwater drainage infrastructure (i.e., removal of an existing catch basin), minor utilities (i.e., realignment of an existing fire hydrant), and the existing parking lot (i.e., realignment and resurfacing of parking lot entrance), and new landscaping, benches, signage, and fencing.

- **Bethany Curve Mural.** Installation of a tile mosaic art mural consisting of 34 horizontal panels (approximately 20 inches by 8 feet) and 20 vertical pilasters (approximately 32 inches by 7 inches) covering the inward, road-facing sides and park-facing side of the Bethany Curve Culvert barriers.

ATF Development.

After-the-fact authorization for the placement of approximately 1,700 cubic yards of riprap placed as a part of ECDPs 3-93-16-G, 3-03-004-G, G-3-14-0019 fronting the 932, 1004, and 1030 West Cliff Drive project areas which did not receive the requisite follow-up CDP authorization.

See **Exhibit 3** for the proposed project plans, **Exhibit 5** for a rendering of the portion of the project at 800 West Cliff Drive, and **Exhibit 6** for photos/concept drawings for the Bethany Curve Mural.

C. Standard of Review

The proposed development is located within the Commission's retained CDP jurisdiction for the portions of the project at the lower beach/ocean elevations and within the City's CDP jurisdiction for the mid-, upper bluff, and blufftop portions of the project. The proposed development is also substantively associated with prior Coastal Commission CDP decisions and requirements, including the development initially temporarily authorized via ECDP 3-03-004-G, affecting 932, 1004, and 1030 West Cliff Drive and requiring a Commission-issued follow-up CDP. The City (as both applicant and inland

CDP entity) and the Executive Director have agreed to consolidated CDP processing pursuant to Coastal Act Section 30601.3, and thus the standard of review for the proposed project is the Coastal Act with the City of Santa Cruz LCP providing non-binding guidance.

E. Coastal Hazards

Applicable Coastal Act and LCP Provisions

The Coastal Act is, at its core, a law that requires coastal resource protection. In adopting the Act in 1976, the State Legislature included a series of goals and objectives. For example, Coastal Act Sections 30001 and 30001.5 state:

> ***Section 30001.*** *The Legislature hereby finds and declares: (a) That the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people and exists as a delicately balanced ecosystem. (b) That the permanent protection of the state's natural and scenic resources is a paramount concern to present and future residents of the state and nation. (c) That to promote the public safety, health, and welfare, and to protect public and private property, wildlife, marine fisheries, and other ocean resources, and the natural environment, it is necessary to protect the ecological balance of the coastal zone and prevent its deterioration and destruction. (d) That existing developed uses, and future developments that are carefully planned and developed consistent with the policies of this division, are essential to the economic and social well-being of the people of this state and especially to working persons employed within the coastal zone.*
>
> ***Section 30001.5.*** *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to: (a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources. (b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state. (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners. (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast. (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone. (f) Anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone.*

In short, the law recognizes the coastal zone as a special place, where coastal resources are of “paramount concern”, and requires that it both be protected against degradation, and enhanced where feasible. To implement these objectives, Chapter 3 of the Coastal Act includes a series of specific provisions that clearly and emphatically require the protection of coastal resources, from public recreational access to coastal

habitats to public views and landforms.[9] And, perhaps just as clearly, and as explained in detail subsequently, armoring generally has significant adverse impacts on the coastal resources protected by Chapter 3 of the Coastal Act, leading to unavoidable impacts on natural landforms, public recreational access, natural processes (which also significantly impacts public recreational access) and public views.[10] These impacts are all inconsistent with the Coastal Act's resource protection requirements, and consequently, the Coastal Act generally directs that armoring be denied in order to meet these coastal resource protection requirements. In other words, the Coastal Act generally prohibits armoring except under very limited circumstances, and this general prohibition is echoed by Coastal Act Section 30253, which makes it clear that all development, including armoring, is not to be approved if it will cause erosion or destruction of the site, or substantially alter natural landforms,[11] which past cases have shown is predominantly the case with armoring.[12]

In fact, as contrasted with the numerous Coastal Act resource protection provisions, both broad and specific, there is only one Coastal Act section that specifically allows armoring, Section 30235, and it includes important – and severely limiting – criteria. Section 30235 states, in applicable part:

> ***Section 30235.*** *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply*.

Section 30235 requires the Commission to approve armoring under very limited circumstances, namely when required to serve coastal-dependent uses[13] or to protect public beaches or existing structures in danger from erosion, and only when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. In other words,

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[9] See, for example, more than 40 sections nested in Chapter 3, including sections related to public access, recreation, the marine environment, and land resources.

[10] See, for example, Commission findings in LCP amendments LCP-3-STC-25-0073-3-Part B (City of Santa Cruz Beaches and Bluffs Hazard Adaptation), LCP-3-SCO-20-0066-2 (Santa Cruz County Hazards Update) and LCP-3-MRB-21-0047-1 (Morro Bay Land Use Plan Update), and in CDPs A-3-SCO-07-095/3-07-019 (Pleasure Point Seawall), 3-09-025 (Pebble Beach Company Beach Club Seawall), 3-09-042 (O'Neill Seawall), 2-10-039 (Lands End Seawall), 3-14-0488 (Iceplant LLC Seawall), 3-16-0345 (Honjo Armoring), 3-16-0446 (Rockview Seawall), 2-17-0702 (Sharp Park Golf Course), 3-18-0720 (Candau Armoring), 3-20-0166 (Wavefarer Partners LLC Armoring), 3-22-0440 (Casanova Armoring), 2-21-0912 (SFPUC Ocean Beach Armoring), 3-22-1027 (Hofmann Seawall), 3-23-0014 (Grossman Armoring), and 3-22-0775 (1307 West Cliff Drive, Santa Cruz).

[11] Section 30253 states, in applicable part, that "New development shall…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" (emphasis added).

[12] Ibid (see list of cases in footnote above).

[13] Coastal Act Section 30001 states that: ""Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all."

when there are qualifying uses, beaches, or structures,[14] armoring must be allowed only if it is required to serve/protect them, meaning when there are no other less environmentally damaging feasible alternatives that can perform that same function. Put differently, given that armoring has significant adverse impacts on a variety of protected coastal resources and is only required to be approved in very limited circumstances, implementation of the Coastal Act's resource protection policies generally requires denial of proposals for armoring.[15] When framed in this way, Section 30235's limited requirement to approve shoreline armoring is probably best understood as an exception with respect to the Coastal Act's coastal resource protection provisions, or put another way, an 'override' of the other Coastal Act sections found in Chapter 3 that would require the Commission to otherwise deny the project.

Importantly, the Section 30235 override as applicable to non-coastal dependent uses only applies to "existing structures." The issue of what constitutes an "existing structure" for Section 30235 purposes has been debated for many years, but was recently resolved by a Court of Appeal in the *Casa Mira* case.[16] There, the court held that "the phrase 'existing structures' in Section 30235 refers to structures that existed prior to January 1, 1977, the Coastal Act's effective date."[17] Thus, the Section 30235 requirement to allow for armoring despite its coastal resource impacts or its inconsistencies with other Coastal Act resource protective provisions only applies to coastal-dependent uses, or pre-Coastal Act development (development lawfully existing prior to January 1, 1977 that has not been redeveloped since), essentially allowing pre-Coastal Act structures the benefit of armoring as an exception to the otherwise applicable Coastal Act requirements.[18] As the court noted, this interpretation of existing structure in Section 30235 is necessary "to comport the Coastal Act's predominant goal of 'preservation of the fragile coastal ecology from overzealous encroachment."[19]

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[14] Two of the three qualifying uses are based on protecting important State shoreline priorities (coastal-dependent uses and public beaches). Importantly, armoring rarely protects beaches; rather, armoring typically leads to the incremental loss of beaches. In fact, when public beaches are in danger of erosion, such danger is typically exacerbated by armoring as opposed to protected by it because armoring typically not only occupies beach and shoreline space that would otherwise be available to public recreational uses, but it also inhibits the transmittal of beach-generating materials from bluffs, and typically leads to loss of beaches over time as an eroding shoreline bumps up against such armoring (also referred to as the 'coastal squeeze' or passive erosion). Thus, bracketing groins in certain circumstances, armoring is typically not a viable/fruitful response to protect a public beach in danger from erosion. Finally, past these two important State shoreline priorities, the only other development allowed armoring by Section 30235 are existing structures, including private structures (e.g., residences) and in certain cases public coastal pathways.

[15] In very rare circumstances, a project may include shoreline armoring and the overall project may still be consistent with Coastal Act, and the Commission may not need to invoke Section 30235.

[16] See *Casa Mira Assn. v. California Coastal Com.*, 107 Cal.App.5th 370 (2024), as modified on denial of rehearing (December 30, 2024), and where State Supreme Court review was denied (March 12, 2025).

[17] *Casa Mira* at 388.

[18] In addition, pre-Coastal Act structures can lose their 'existing' status under Section 30235 if they are modified in such a way that they are no longer the same structure, but rather a replacement structure (often referred to by the Commission as a 'redeveloped' structure).

[19] *Casa Mira* at 385.

The purpose and structure of the Coastal Act support such an interpretation as well, as reflected in numerous policies of the Act. For example, not only does Section 30009 require a liberal interpretation to protect shoreline and beach resources,[20] but Section 30007.5 also directs the Commission to resolve conflicts in a manner that is "most protective of significant coastal resources."[21] Courts have relied on Section 30009 to find that exceptions to the Act's requirements must be read narrowly.[22] The Coastal Act is thus the arbiter for understanding LCPs on these points. In fact, courts have also previously found that LCP provisions must be understood in relation to the relevant Coastal Act section or sections from which a specific LCP provision derives its authority.[23] Furthermore, Section 30270 requires the Commission to "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;" and recognizing the inevitability of ever increasing impacts from armoring in an era of sea level rise underlines the importance of limiting the circumstances under which armoring can be approved.

It's also worth noting that the City of Santa Cruz LCP (which provides guidance, albeit non-binding, for this application) mirrors the Coastal Act by limiting the construction of shoreline protective devices to those required to protect existing principal structures, coastal-dependent uses, or public beaches in danger from erosion; requires that such devices only be permitted if there are no other less environmentally damaging feasible alternatives for protection of existing development, and requires that such devices eliminate or mitigate adverse impacts on sand supply, and enhance public recreational access and opportunities. The City's LCP also offers additional specificity on the use of less environmentally damaging feasible alternatives and encourages consideration of non-armoring and hybrid strategies (like relocation, drainage/landscaping, etc.). With respect to design, the City's LCP requires that new shoreline armoring enhances coastal resources by minimizing the footprint of the structure, increases beach width, integrates new access features, and enhances existing visually blighted conditions to the maximum extent feasible. Finally, the LCP also includes specificity on mitigation requirements for armoring, noting that any unavoidable coastal resource impacts are to be mitigated proportionately, and offers a preference for in-kind mitigation projects over in-lieu fees, but allows the use of in-lieu fees in cases where in-kind mitigation is not feasible. All of these provisions are directly applicable to the proposed armoring in this case. The LCP states as follows:

[20] Section 30009 requires that: "This division [i.e., the Coastal Act] shall be liberally construed to accomplish its purposes and objectives."

[21] Section 30007.5 states, in applicable part: "The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources."

[22] See, for example, *Citizens for a Better Eureka v. California Coastal Com.* (2011) 196 Cal.App.4th 1577, 1586-87 ("[i]n light of the legislative directive to construe the Act liberally...it is appropriate to construe the exceptions narrowly"", *quoting Capon v. Monopoly Game LLC* (2011) 193 Cal.App.4th 344, 355).

[23] See, for example, *McAllister v. Coastal Commission* (2008) 169 Cal.App.4th 912.

Policy BB-12 (a). Allowable Shoreline Protective Devices. *The shoreline protective device is required to: (1) serve a coastal-dependent use; or (2) protect a public beach; or (3) protect an existing principal structure that was legally constructed on or before January 1, 1977 (and that has not been changed in a way that constitutes redevelopment), and the use, beach, or structure is in danger from erosion (e.g., a structure would be unsafe to use or occupy within two storm seasons as deemed by the Building Official based on geotechnical analysis).*

Policy BB-12 (b). Least Damaging Alternative. *The shoreline protective device is the least environmentally damaging feasible alternative. Hard armoring (such as seawalls, etc.) shall only be allowed if nature-based adaptation strategies (such as relocation; nature-based adaptation strategies like dune/reef enhancement projects, beach nourishment, vegetative planting, drainage control and landscape improvements; and hybrid strategies, etc.) cannot meet the above least environmentally damaging feasible alternative criteria, and if limited to avoid coastal resource impacts to the maximum extent feasible. Consideration of new shoreline protection shall require review of any already-existing protective devices to assess the need for their removal or minimization, or for restoration of those sites, to be required as a condition of approval of any new shoreline protective device.*

Policy BB-12 (c). Design Standards. *All shoreline protective devices shall be sited and designed to both avoid coastal resource impacts and enhance coastal resources to the maximum extent feasible, including by reducing the footprint of the structure, designing for sea level rise conditions expected over the life of the protected development while recognizing the potential for phased adaptation approaches, enhancing visually blighted conditions, increasing beach width, and restoring/enhancing habitat value, and integrating new access features/opportunities.*

Policy BB-12 (d). Mitigation. *All shoreline protective devices shall be accompanied by proportional mitigation for all unavoidable coastal resource impacts, including with respect to impacts on shoreline sand supply, sandy beaches, public recreational access, including surfing and other water-based recreation, landscaping, public views, natural landforms, and water quality for the anticipated life of the development. Proportional "in lieu" fees may be used as a tool for impact mitigation if in-kind options (e.g., developing new public access facilities commensurate to offset the access impacts identified) are infeasible, and if such fees are deposited into an interest-bearing account managed by the City and used for coastal adaptation projects and programs, including public coastal recreational access improvements.*

In addition, the LCP also addresses repair and maintenance of armoring structures and limits such activities to the least amount necessary to maintain the functionality of the device. If proposed development is currently protected by armoring, then it can only be approved if the armoring is otherwise allowable and is modified to reduce its coastal resource impacts (e.g., restacking or removing riprap/rock revetments to open up

additional beach space, contouring seawalls to improve public views, etc.) to the maximum extent feasible. Notably, the LCP sets a limit on the duration of allowed armoring and the potential for removal based on changed conditions and circumstances/impacts to coastal resources:

> ***Policy BB-12 (g). Repair and Maintenance.*** *The shoreline protective device shall be repaired and maintained as necessary to ensure that it continues to exist in its approved and/or required state (including CDP requirements pertaining thereto), particularly in relation to ensuring the continued utility and function of the design standard requirements above. Repair and maintenance of a shoreline protective device that is not protecting an existing structure (or any structure that is ineligible for armoring under this Chapter) shall be limited to the minimum amount of maintenance needed to maintain the functionality of the device, but in no case shall include its expansion or extend its useful life.*
>
> ***Policy BB-12 (h). Armoring Duration.*** *The shoreline protective device shall only be authorized until the time when the existing principal structure that is protected by such a device: (1) is no longer present; (2) no longer requires armoring; or (3) is redeveloped, or in the case of approved/required public recreational access areas and features, those areas and features remain in good condition and available for public use. Permittees shall be required to submit a CDP application to remove the shoreline protective device within six months of a determination by the City or the Coastal Commission's Executive Director that the shoreline protective device is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring. In the case of coastal redevelopment, removal of the authorized shoreline protective device and restoration of the affected area shall be required as part of construction of the redeveloped structure.*
>
> ***Policy BB-12 (j). Proposed Development Protected by Existing Armoring.*** *If proposed development is currently protected by armoring, then it shall only be approved if allowable pursuant to subsections a and h above and the armoring is modified to reduce its coastal resource impacts (e.g., restacking removing riprap/rock revetments so as to open up additional beach space, contouring seawalls to improve public views, etc.) to the maximum extent feasible.*

Furthermore, the LCP recognizes that armoring is to be removed if the structure being protected is no longer there, no longer needs armoring, or is redeveloped:

> ***Policy BB-10. Efficacy of Shoreline Protection.*** *Require an applicant for development, including redevelopment of an existing structure, to assess the continued efficacy of any onsite shoreline protective devices to protect the development or structure, including evaluation of future conditions such as projected sea level rise. This includes evaluation of the condition of the devices, and whether devices can be removed or modified to allow affected areas to be returned to more natural conditions and/or to minimize the armoring's footprint and coastal resource impacts. If such assessment does show shoreline protective devices can be removed or modified, and affected areas returned to*

more natural conditions, include such actions in the conditions of approval for authorized development. Where necessary, require a removal and restoration plan, including financial bonding, for large projects to address potential shoreline protection or project failure at some future date.

Finally, the LCP provides additional specificity for new public development, including City projects along West Cliff Drive, which must prioritize nature-based adaptation strategies where feasible, recognize the importance of maintaining blufftop space seaward and landward of infrastructure in a natural state, implement native landscaping and drainage improvements, and evaluate the feasibility of relocating threatened infrastructure away from coastal hazard threats. The LCP also specifically directs a Shoreline Adaptation Management Plan (SAMP) for the West Cliff corridor to guide more specific and prescriptive projects/responses to coastal hazards. Specifically, the LCP states:

Policy BB-6 (a). *Consistency with LUP Objectives and Policies. SAMPs shall be consistent with and implement LUP objectives and policies, including protecting and enhancing natural shoreline resources and public shoreline, offshore, and sandy beach recreational areas for public use and enjoyment; minimize shoreline hazard risks to life, property, and public infrastructure; and assure the stability of new developments while avoiding the substantial alteration of natural bluff and cliff landforms.*

Policy BB-6 (b). *Adaptation Pathway Vision. Each SAMP shall include a vision for the shoreline area to guide the development and implementation of near-, mid-, and long-term adaptation strategies as described below. The City shall consider the individual and potential cumulative consequences of each SAMP vision to assure compatibility with each other and consistency with the LUP, including addressing the balance between public access and recreation, resource protection, hazard reduction, and other management objectives for the entire City shoreline through such mechanisms as minimum city-wide requirements and/or mitigation strategies.*

Policy BB-7. Public Projects along West Cliff. *In addition to other policies in this section that may be applicable in any particular case (e.g., related to development in the Shoreline Hazard Evaluation Area, shoreline armoring, etc.), the following provisions also apply to projects in the vicinity of West Cliff Drive in an interim manner until certification of a West Cliff Shoreline Adaptation Management Plan pursuant to Policy BB-6, which shall provide a more detailed set of policies.*

a. Avoid the use of shoreline armoring to the maximum extent feasible. Where unavoidable, minimize the scope, extent, and impacts associated with shoreline armoring to the maximum extent feasible. As part of any Coastal Development Permit (CDP) evaluation for proposed armoring (including modifications/expansions of any extant armoring, replacement armoring, and altogether new armoring), the City shall evaluate the feasibility of either relocating the structure that needs protection away from such hazards to

avoid needed armoring (e.g., relocating portions of West Cliff Drive inland of or through portions of Lighthouse Field State Beach), or eliminating the structure, provided public recreational access will not be significantly adversely impacted. Limit any allowed/required armoring to areas where critical infrastructure (e.g., public roads, sidewalks, and public utilities) meets the requirements of Policy BB-12. Any allowed/required armoring shall be sited and designed to avoid covering natural landforms and to mimic natural landforms to the maximum extent feasible.

b. *Mitigate all coastal resource impacts associated with allowed/required armoring, including pursuing a hybrid strategy that could include accommodating natural bluff/shoreline retreat through moving at risk infrastructure inland. Coordinate with partners like the California Coastal Commission, State Parks, and the community to consider adaptive strategies that could include realignment of infrastructure, including in terms of potential impacts to public recreational trails, parking facilities, and other infrastructure, as well as more broadly in terms of specific areas (e.g., Lighthouse Point, and Lighthouse Field and Natural Bridges State Beaches).*

d. *Maintain blufftop space seaward and landward of infrastructure (e.g., recreational trail, water/sewer lines, etc.) in a natural state to the maximum extent feasible to maximize options for adaptation over time. Apply appropriate drainage and native landscaping measures to help protect such areas against increased erosion.*

e. *Monitor armoring in terms of its ongoing impacts on coastal resources, including on public recreational resources, including surfing, and implement measures to offset such impacts (e.g., removal of rock on beaches that is displaced from revetments, incorporation of new access features (such as public benches, overlooks, and/or interpretive elements) into infrastructure/armoring structures, exploration of upgrades to vertical access, etc.).*

g. *Support through access for recreational users and emergency responders through trail realignment inland, where feasible, which may involve permanent removal of parking and reconfiguration of roadway.*

Again, as with the Coastal Act, armoring is best understood through this LCP lens as an exception allowable only under very limited circumstances including because it can significantly and adversely impact community and natural resource values at the shoreline. The LCP also offers additional specificity, including that applications for development and redevelopment trigger an evaluation of the armoring to help identify opportunities to reduce any existing coastal resource impacts and to offset any unavoidable impacts either through in-lieu fees or in-kind mitigation. Although the standard of review for this project is the Coastal Act, the LCP nevertheless provides non-binding guidance, which here only further reinforces and builds upon the Act's coastal resource protection requirements.

Consistency Analysis

As indicated above, Coastal Act Section 30235 is an override over other Coastal Act provisions that allows armoring if required to serve a coastal-dependent use or to protect an existing structure in danger from erosion (as applicable to this proposed project) subject to the requirement that adverse impacts to local shoreline sand supply are mitigated or eliminated. The Coastal Act provides for these limitations because shoreline armoring can have a variety of negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beaches.[24]

Thus, the applicable questions here under Coastal Act Section 30235 are whether: (1) there is an existing structure and/or a coastal-dependent use; (2) that existing structure/use is in danger from erosion; (3) shoreline-altering construction is required to protect that existing endangered structure/use; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply.[25] The first three criteria relate to whether the proposed armoring is necessary, while the fourth criterion applies to mitigating some of the impacts from the proposed armoring if it is deemed necessary.

Existing Structure/Coastal-Dependent Use

The Commission has interpreted Section 30235 to apply only to existing principal structures (i.e., development legally authorized and built prior to January 1, 1977, and which has not been redeveloped since).[26] The application of Section 30253 since 1977 creates two types of development under the Coastal Act: pre-Coastal Act development that may not have been built to meet Section 30253 requirements to avoid armoring, and post-Coastal Act development that has (including because it is required by Section 30253). Put another way, the Section 30235 requirement to allow for armoring regardless of its coastal resource impacts or its inconsistencies with other Coastal Act resource protection provisions is intended to only apply to pre-Coastal Act development, and not anything else, essentially 'grandfathering' pre-Coastal Act structures and allowing them armoring as an exception to the otherwise applicable Coastal Act requirements. In addition, such pre-Coastal Act structures lose their 'existing' status under Section 30235 if they are modified in such a way that they are no longer the same structure, but rather a replacement structure (often referred to by the Commission as a

[24] See, for example, Commission findings in LCP-3-STC-25-0073-3-Part B (City of Santa Cruz Beaches and Bluffs Hazard Adaptation), LCP-3-MRB-21-0047-1 (Morro Bay Land Use Plan Update), and CDPs A-3-SCO-07-095/3-07-019 3-07-019 (Pleasure Point seawall), 3-09-025 (Pebble Beach Company Beach Club seawall), 3-09-042 (O'Neill seawall), 2-10-039 (Lands End seawall), 3-14-0488 (Iceplant LLC seawall), and 2-17-0702 (Sharp Park golf course).

[25] CDP approval also requires that projects be found consistent with other Coastal Act provisions that independently protect coastal resources in addition to these Section 30235 (and related LCP as guidance) requirements. The discussion in this Coastal Hazards analysis speaks to consistency with 30235, but overlapping and distinct discussions regarding consistency with other Coastal Act provisions are covered separately below.

[26] This was affirmed most recently via the published *Casa Mira* court of appeal decision from 2024 (*Casa Mira Homeowners Assn. v. California Coastal Com*., 107 Cal.App.5th 370 (2024); as modified on denial of rehearing (December 30, 2024); and where State Supreme Court review was denied (March 12, 2025)).

'redeveloped' structure).[27]

The Coastal Act reflects a broad legislative intent to allow armoring only under certain very limited circumstances, and only for structures that existed when the Coastal Act was adopted and when such structures are in danger from erosion (Section 30235), but to prohibit such armoring for new development constructed after adoption of the Act (Section 30253). This interpretation to allow protection only for certain structures that predate the Coastal Act is also supported by the Commission's duty to protect public trust resources, and the Coastal Act requirement that the Act "shall be liberally construed to accomplish its purposes and objectives" (Section 30009, previously described), where, as described, the Act on this point protects these natural shoreline and beach resources and only allows for armoring as an exception – or, put another way, as an override – under extremely narrow criteria.

Furthermore, Section 30270 requires the Commission to "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;" and recognizing the inevitability of ever increasing impacts from armoring in an era of sea level rise underlines the importance of limiting the circumstances under which armoring can be approved. Thus, the only types of structures allowed armoring under Section 30235 are those that existed before January 1, 1977 and have not been redeveloped since and/or those that represent coastal-dependent uses.

In this case, West Cliff Drive has existed as a road in some form since the late 1800s/early 1900s, well before the passage of 1972's Proposition 20 (The Coastal Initiative)[28] and the subsequent adoption of the Coastal Act in 1976 (where it came into effect on January 1, 1977). West Cliff Drive has undoubtedly undergone modifications over time, although it is difficult to discern the extent of those modifications and their precise locations over time. For example, West Cliff was a dirt road when originally constructed but was paved sometime well before 1972, and a recreational pathway has been in existence for decades. In addition, some of the utilities have been

[27] Coastal Act Section 30610(d) and Title 14 of California Code of Regulations (CCR) Section 13252(b) help define when structures meet or don't meet the redevelopment threshold. CCR Section 13252(b) specifically states that replacement of 50% or more of a structure, including single-family residences, is not repair and maintenance under Coastal Act Section 30610(d) but instead constitutes a replacement structure that must be evaluated for Coastal Act compliance purposes. In applying Section 13252(b)'s 50% criteria, the Commission has, in the past, found that a structure will be considered a replacement structure (also referred to as redevelopment) if at least one of the following takes place: 1) 50% or more of the major structural components (i.e., including exterior walls, floor, roof structure, or foundation, where alterations are not additive between individual structural components) are replaced; 2) there is a 50% or more increase in gross floor area; 3) replacement of less than 50% of a major structural component results in cumulative alterations exceeding 50% or more of that major structural component (taking into account previous replacement work undertaken since January 1, 1977); and 4) a less than a 50% increase in floor area where the alteration would result in a cumulative addition of 50% or more of the floor area, taking into account previous additions to the structure since January 1, 1977 (see, for example, LCP amendments LCP-2-MAR-13-0224-1 Part A and LCP-3-MRB-21-0047-1 and CDP 3-16-0345 (Honjo armoring).

[28] Proposition 20, approved by California voters in 1972, introduced coastal permitting requirements in February 1973.

undergrounded over time and portions of the road and pathway have been replaced. In addition, as part of the proposed CDP, certain segments of the road and trail are being repaved/resurfaced, or replaced entirely. Thus, West Cliff Drive in the project area is not so clearly an existing structure to which the aforementioned override applies. That said, the West Cliff Drive corridor, including the road and the recreational pathway system, is an extremely important public access system, providing a continuous east-west coastal trail and roadway along the shoreline and connecting coastal overlooks, surfing spots, trails, beach stairways, pocket beaches, and parks. In this context of the corridor serving as a public promenade, the road and pathway can be considered coastal-dependent because those public access uses require the public access trail and road to be sited adjacent to the sea in order to function as a public access network to access and use the ocean, and can thus avail itself of the armoring override for this reason.[29]

Accordingly, the proposed project meets the first test of Section 30235, and although there is some question as to the road's existing structure status, the record demonstrates that the West Cliff corridor and its recreational trail, which lies seaward of the road itself, are coastal-dependent uses.

Danger from Erosion/Serving Coastal-Dependent Uses

The second Section 30235 test is whether the existing structure/use is in danger from erosion. The Coastal Act does not define the term "in danger," but there is little doubt that there is risk involved in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other coastal hazards. Sea level rise and localized geography that can focus storm energy at particular stretches of coastline can exacerbate these risks. In a sense, all development along the immediate California coastline is in a certain amount of "danger." It is a matter of the degree of threat that distinguishes between danger that represents an ordinary and acceptable risk, and danger that requires shoreline armoring per Section 30235. Lacking a Coastal Act definition, the Commission has in the past evaluated the immediacy of any threat in order to make a determination as to whether an existing structure is "in danger" for the purposes of Section 30235 considerations. While each case is evaluated based upon its own particular set of facts, the Commission has in the past interpreted "in danger" to mean that an existing structure would be unsafe to use/occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (i.e., in the no project alternative).[30]

Erosion can be highly episodic and dependent on various geologic, climatic, and geomorphic processes, making short term erosion predictions challenging. The City's

[29] Although a case-by-case determination, the Commission has determined similar roads and pathways to qualify as coastal-dependent uses (for example, see CDPs 3-16-0446 (Rockview Seawall and Accessway), 3-18-0720 (3006 Pleasure Point Drive Armoring and Access Improvements), 3-20-0166 (3020 Pleasure Point Drive Armoring and Access Improvements), 3-22-0440 (3000 Pleasure Point Drive Armoring and Access Improvements), and 3-19-1287 (17 Mile Drive Armoring).

[30] See, for example, CDP A-3-SCO-07-095/3-07-019 (Pleasure Point seawall); CDP 3-09-025 (Pebble Beach Company Beach Club seawall); CDP 3-09-042 (O'Neill seawall); CDP 2-10-039 (Lands End seawall); CDP 3-14-0488 (Iceplant LLC seawall); and CDP 2-17-0702 (Sharp Park Golf Course revetment).

geotechnical report found a significant history of erosion along West Cliff Drive using historical maps and aerial photographs dating back to 1910, with the largest erosion episodes occurring during large storm and swell events. While assessments of West Cliff Drive are complicated by the fact that much of the bluff fronting the roadway has been armored for a significant amount of time, the geotechnical report noted that the project area experienced on average approximately 0.5 feet of erosion per year, outside of large episodic erosion events. Notably, the coastal bluff at these locations is composed of soft marine terrace deposits atop Purisima bedrock, with the bedrock forming linear peninsulas, coves, and sea caves over time due to constant wave erosion making its way into cracks and weak spots in the bedrock.

In sum, the affected project sites are erodible and susceptible to bluff failure and collapse absent some type of intervention to abate this threat, as has been clearly shown by the erosion and high waves that precipitated the emergency projects in the first place. Thus, and for all of the above reasons, the road, pathway, and underground utilities are all considered in danger from erosion for purposes of Section 30235.

Feasible Protection Alternatives to a Shoreline Structure

The third Section 30235 test that must be met is that the proposed armoring must be "required" to protect the existing threatened structure/use. In other words, shoreline armoring can be permitted if it is the only feasible alternative capable of protecting the structure/use.[31] When read in tandem with other applicable Coastal Act policies cited in these findings, the Commission has in the past conceptualized this Coastal Act Section 30235 evaluation as a search for the least environmentally damaging feasible alternative that can serve to protect existing endangered structures/uses. Other alternatives typically considered include: the "no project" alternative; abandonment of threatened structures/uses; relocation of threatened structures/uses; sand replenishment programs; drainage and vegetation measures on the blufftop; and combinations of each.

The Applicant considered a number of alternatives, including via their geotechnical report, and several potential alternatives are discussed briefly below.

<u>No Project Alternative</u>

The no-project alternative would result in continued erosion, leading to the undermining and loss of West Cliff Drive, the coastal pathway, and possibly underground utilities at the various project locations. West Cliff Drive is a heavily travelled roadway for vehicles, bicycles, and pedestrians, and it provides a continuous east-west route along the coast and to the various coastal access points leading to the beach and ocean. As evidenced by the temporary closure of the road and pathway following the storms in 2023 and 2024 and subsequent emergency repair work, if the road were to be closed it would significantly impact the public's ability to recreate and access the coast along this stretch of shoreline. Not completing the proposed project and continuing with the status quo would also mean ongoing emergency as-needed fixes to respond to erosion events

[31] Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

and tend to aging infrastructure, eventually exposing the homes on the inland side of West Cliff Drive to coastal erosion and coastal hazards threats. Moreover, West Cliff Drive constitutes roughly one third of the City's shoreline and is beloved for its coastal access and recreation amenities and opportunities for residents and visitors alike. Accordingly, abandoning West Cliff is not a decision to be made lightly. Rather, it comes with significant cascading social and economic ramifications that must be given appropriate time and community dialogue and for which there remains significant public community debate as least as it relates to the long-term vision for West Cliff. Accordingly, the no-project alternative is infeasible at this time; however, it will undoubtedly continue to be evaluated as the effects of climate change and sea level rise are felt and storm damage becomes more frequent and devastating.

Beach Nourishment

Successful beach nourishment programs generally require large amounts of sand materials over a large area and are subject to very specific program parameters intended to maximize their efficacy and utility. West Cliff Drive experiences seasonal scour, with significant natural inshore-offshore movement on a yearly basis. This cycle means that replenishment would have to occur extremely frequently and it's possible that sand replenishment would impact surrounding habitat area. In addition, the undulating nature of West Cliff Drive would require large amounts of sand to fill in the various pocket beaches and it's not clear that the types of volumes necessary for this sand are readily available for use/purchase. The City is actively considering beach nourishment as one potential adaptation management solution to be used in concert with other management tools; however, there are significant outstanding community, regulatory, and economic feasibility questions and concerns, and thus it remains infeasible as a standalone alternative at this time.

Improved Drainage and Vegetation

The geotechnical report indicates that bluff erosion along West Cliff Drive is primarily caused by wave action and that drainage and vegetation play little, if any, significant role in erosion at the various sites. However, the proposed project includes general landscaping improvements (i.e., removal of iceplant and replacement with native landscaping) and furthermore includes drainage improvements to two sites: 1004 West Cliff Drive (Bethany Curve Culvert) and 800 West Cliff Drive. At these two sites, existing aging culvert infrastructure is proposed to be replaced and augmented to better accommodate natural drainage and in a way that does not contribute to coastal erosion. Overall, while drainage and vegetation improvements are a welcome addition, they would have a minimal impact on bluff erosion rates, making this alternative inadequate to address the underlying issues by themselves. Nevertheless, the City is prioritizing upgrading drainage along West Cliff to minimize the potential for drainage to exacerbate erosion issues and in fact just applied for a grant with the U.S. Department of Transportation's Federal Highway Administration to, among other things, enhance drainage along 7 identified locations along West Cliff. However, given the extent and severity of damage to the subject sites, and wave action serving as the primary cause of the damage, addressing drainage and landscaping alone was deemed insufficient to address erosion concerns.

Relocation/Managed Retreat

Another alternative is to relocate West Cliff Drive out of harm's way and restore the bluff to its natural state. While relocating or shifting West Cliff Drive inland would avoid the expected coastal resource impacts associated with hard armoring of the shoreline, much of West Cliff is constrained with development immediately landward of the road except for the portion fronting Lighthouse Field. Indeed, between 1030 West Cliff Drive at the upcoast end all the way through to 920 West Cliff Drive at the downcoast end, the road is bound on the inland side by single-family residences, none of which are owned by the City of Santa Cruz. In order for the road to be shifted inland across this area, the City of Santa Cruz would need to purchase portions of these parcels or obtain easements over them, provided the multiple property owners would be willing to sell or grant easements over part of their land. The City of Santa Cruz, as a public agency, does have the ability to exert powers of eminent domain to obtain the necessary portions of these private properties, however, such an endeavor would be costly and likely take many years to be fully realized.

As noted above, certain areas of West Cliff Drive are better suited for immediate consideration of managed retreat, particularly the project area at 800 West Cliff Drive. In this location, West Cliff Drive is bound on its inland side by the field portion of Lighthouse Field State Beach, which is owned and operated by California State Parks.[32] The City considered a number of alternatives at this site, including hard armoring and a pier supported walkway,[33] but ultimately concluded relocation of the road and pathway inland was the most feasible and least environmentally damaging alternative, and the realignment project was supported by State Parks. In its assessment, the City found that moving the pathway inland would not result in a significant public access and recreational impact and would likely not contain archeological or tribal cultural resources. Furthermore, the project was eligible for funding by the Federal Highway Administration (FHWA) and proved to be a cost-effective strategy for the City. Overall, the 800 West Cliff site presents a prime opportunity for thoughtful managed retreat in a way that respects and protects coastal resources and allows the City to avoid hard armoring at this site. In addition, the City has identified other sites along West Cliff Drive (one area near Getchell Street and one area near Its Beach) where managed retreat is the preferred alternative and where they're taking the necessary steps to advance managed retreat in these locations as is discussed further in the "Public Access" section below.

Thus, while the Commission finds that managed retreat is presently infeasible at certain locations along West Cliff Drive, the segment at 800 West Cliff (as proposed by the City) is indeed appropriate and feasible to relocate the at-risk development inland and away from the hazards risk so as to avoid the use of hard armoring that can otherwise lead to significant adverse coastal resource impacts.

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[32] Lighthouse Field State Beach was established in 1978 and includes areas inland from West Cliff Drive (e.g., a large grassy field, walking trails, trees and monarch habitat, etc.) and areas seaward of West Cliff Drive (e.g., Its Beach, Lighthouse Point, etc.).

[33] It's worth noting that the City initially pursued an ECDP and Federal Highway Administration's (FHWA) Emergency Relief funding (i.e., the same primary funding for the City's other emergency projects) for hard armoring at the 800 West Cliff site, but eventually pivoted to the now proposed realignment, including as the City's draft (now certified LCP) spoke to using nature-based strategies where feasible.

Proposed Project

Ultimately, the proposed project incorporates non-armoring (i.e., managed retreat) alternatives where feasible and utilizes hard armoring strategies in other more constrained locations, all as a means of protecting the endangered road and pathway (see **Special Condition 1**). The City utilized various armoring types and designs (e.g., gravity walls, secant pile walls, riprap, etc.) in an effort to tailor the armoring to the specific location and on-the-ground conditions. The City generally sought to limit the footprint of the armoring structures, incorporated camouflaging techniques (i.e., coloring and texturing the wall faces to better match the adjacent natural bedrock) to minimize visual impacts, and integrated various public access amenities and features like benches and overlooks in addition to reopening and in places widening the pathway. As such, the Commission concurs with the City that the proposed project represents the least environmentally damaging feasible alternative, including when coastal resource impacts and mitigations are factored in (see below sand supply discussion and see subsequent findings related to public recreational access, marine resources, and public views, all incorporated here by reference).

Thus, the proposed project meets the third analytic test of Section 30235.

Sand Supply/Beach/Shoreline Area Impact Assessment and Mitigation

The fourth test of Section 30235 that must be met in order to compel Commission approval is that shoreline structures must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.

Shoreline Processes

Some of the effects of engineered armoring structures on the beach (such as scour, end effects and modification to the beach profile) are temporary or are difficult to distinguish from all the other actions that modify the shoreline. Others are more qualitative (e.g., impacts to the character of the shoreline and visual quality). Some of the effects that a shoreline structure may have on natural shoreline processes can be quantified, however, including: (1) the loss of the occupied beach and shoreline recreational area on which the structure is located; (2) the long-term loss of beach and shoreline recreational area that will result when the back-beach location is fixed on an eroding shoreline; and (3) the amount of material that would have been supplied to the beach and shoreline recreational area if the back-beach or bluff were to erode naturally.[34] The first two calculations affect beach and shoreline use areas, and the third is related more explicitly to shoreline sand supply impacts, but all three impact public recreational access to the beach and shoreline recreational area.

Encroachment on the Beach/Shoreline Recreational Area

With respect to the loss of beach and other shoreline recreational areas, shoreline protective devices such as the armoring system proposed in this case are physical structures that occupy space. Typically, when a shoreline protective device is placed on a beach or other recreational area, the underlying area cannot be used for beach and

[34] This third impact associated with sand supply refers to the way in which the project impacts creation and maintenance of beach sand. Although this ultimately can translate into beach and other recreational impacts, the discussion here is focused on the sand supply/maintenance issue and the way in which the proposed project would impact sand supply processes.

other recreation. This generally results in a loss of public access as well as a loss of sand and/or areas from which sand generating materials can be derived. The area where the structure is placed will be altered from the time the protective device is constructed, and the extent or area occupied by the device will remain the same over time, until the structure is removed or moved from its initial location, or in the case of a revetment, as it spreads seaward over time. The beach/recreational area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

In this case, the footprint of new shoreline armoring would occupy approximately 5,000 square feet of beach and bluff space.[35,36] In addition, ECDP-authorized and unpermitted armoring has occupied 18,500 square feet since the 1990s/early 2000s (or approximately 30 years).[37] Thus, to account for the footprint impacts of all armoring that has not yet been permitted in the project area, the footprint is estimated at 23,500 square feet.

Fixing the Beach/Shoreline Position (the "Coastal Squeeze")

On an eroding shoreline, beach and shoreline recreational areas will exist between the shoreline/waterline and the bluff as long as sand and space are available to form a beach. As the bluff naturally erodes, the profile of the beach also retreats, and the beach area migrates inland with the bluff. This process stops, however, when the backshore is fronted by a hard protective structure, such as a revetment or a seawall. While the shoreline on either side of the armor continues to retreat, shoreline in front of the armor eventually stops at the armoring. This effect is also known as passive erosion or coastal squeeze. The beach/recreational area will narrow, being squeezed between the moving shoreline and the fixed backshore, and this represents the loss of a beach and recreational shoreline as a direct result of the armor. The coastal squeeze phenomenon caused by armoring is exacerbated by climate change and sea-level rise. As climate change causes the seas to rise ever faster, beach and recreational shoreline areas will be lost at an increasingly faster pace.[38] Eventually, there will be no available

[35] The footprint of new shoreline armoring was derived using GIS mapping techniques by the Coastal Commission's Mapping Unit. The total square footage includes newly placed/grouted riprap, where some areas previously contained shoreline armoring; however, for the purposes of calculating the impact in this area and due to the fact the proposed project substantially alters/replaces what was previously there, it is considered new.

[36] The various infill walls are not included in this calculation because they are vertical upper/mid bluff retaining walls that do not encroach into the beach/shoreline area.

[37] These include riprap sites fronting Woodrow Avenue (approximately 1,012 square feet), 960 West Cliff Drive (approximately 6,087 square feet), and 922-940 West Cliff Drive (approximately 8,304 square feet and 3,127 square feet, respectively), associated with ECDPs 3-93-16-G, 3-03-004-G, and G-3-14-0019.

[38] Sea level has been rising for many years, and there is a growing body of evidence that there has been an increase in global temperature and that acceleration in the rate of sea level rise can be expected to accompany this increase in temperature. The Coastal Commission's Sea Level Rise Policy Guidance (2024) recommends using best available science at the time of application to understand the risks associated with sea level rise over the life of development. In June 2024, the California Ocean Protection Council adopted the updated State Sea-Level Rise Guidance (Guidance), which incorporates recent scientific information and is now considered the best available science on sea level rise for the State of California. According to the Guidance, the estimated range of sea level rise for this area (based on the Monterey tide gauge) for 2070 is approximately 0.6 feet to 2.8 feet; and 0.7-5.2 feet for 2090. Additionally,

dry beach or shoreline recreational area, and the shoreline will be fixed at the base of the armoring structure. In the case of an eroding shoreline, this represents the loss of a beach and shoreline recreational area as a direct result of the armoring. Specifically, beach and shoreline recreational areas are diminished as the beach is compressed between the ocean migrating landward and the fixed backshore.

The passive erosion impacts of armoring, or the long-term loss of beach due to fixing the back beach, are equivalent to the footprint of the bluff area that would have become beach due to erosion and is equal to the long-term average annual erosion rate multiplied by the width of property that has been fixed by a resistant shoreline protective device. Consistent with past practice, including the Commission's experience that shoreline armoring often needs to be reinforced, augmented, replaced, or substantially changed within a reasonable period of years from its original installation, and to provide for re-review on a regular basis to allow for consideration of possible changes in policy, law, and physical conditions associated with armoring, the Commission typically evaluates such impacts over 20-year periods. After this 20-year initial mitigation period, additional impact analysis will be assessed as needed (see **Special Condition 8(c)**) for any additional authorization periods.

The Commission has in the past used a methodology for calculating passive erosion impacts of armoring, or the long-term loss of beach due to fixing the back beach. The area of beach lost due to long-term erosion is equal to the long-term average annual erosion rate multiplied by the number of years that the back beach or bluff will be fixed, multiplied by the width of the property that will be protected. Applying the average long term annualized erosion rate (estimated by the Applicant's geologist to be 0.5 feet per year) over the initial 22-year mitigation period (for the 20-year mitigation period plus an additional two years for the temporary period where the armoring was in place and authorized via ECDP) of the new shoreline armoring, multiplied by the 1,200 linear feet of proposed armoring, amounts to approximately 13,200 square feet of beach would have been created naturally if the back beach had not been fixed by armoring for those 22 years.[39] In addition, riprap at these locations was temporarily authorized via emergency CDPs (in the 1990s and early 2000s) but subsequently did not receive the required follow-up CDPs, and thus the impacts for said riprap must also be accounted for via dating back to its original installation. It is estimated that the riprap installed in the 1990s and early 2000s has led to approximately 6,100 square feet of passive erosion.[40] Therefore, the total passive erosion impact in need of mitigation through 2046 is

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recent scientific studies have analyzed the potential for rapid ice loss and suggest that there could be extreme sea level rise of as much as 6.6 feet by 2100 (or 3.0 and 5.4 feet of sea level rise for 2070 and 2090, respectively), though this extreme scenario is currently less well understood. The observed trend for global sea level has been a long-term, persistent rise. Mean water level affects shoreline erosion several ways, and an increase in the average sea level will exacerbate all these conditions. On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. This, too, leads to loss of the beach as a direct result of the armor as the beach is squeezed between the landward migrating ocean and the fixed backshore.

[39] That is 1,200 feet multiplied by 0.5 feet of erosion per year, multiplied by 22 years.

[40] Based on 35 linear feet of armoring since the 1990s and 445 linear feet of armoring since the 2000s, and an erosion rate of 0.5 feet per year.

approximately 19,300 square feet (i.e., 13,200 + 6,100 = 19,300).

Thus, the entire proposed augmented armoring will result in the loss of approximately 42,800 square feet of beach and shoreline recreational area over the next 20 years (23,500 square feet associated with the fixed footprint of the shoreline armoring structures and 19,300 square feet associated with coastal squeeze from initial installation through the initial 20-year time frame, as described above).

The beach and recreational impacts of the proposed armoring represent a rather substantial public recreation access impact, nearly a full acre, including a loss of the social-economic value of beach and shoreline recreational access, for which the Coastal Act requires mitigation. The most obvious in-kind mitigation for these impacts would be to create a new roughly 42,800 square-foot area of beach/shoreline to replace that which was and will be lost since the time that the armoring was first installed up to the end of this CDP's authorization for it with an identical area of beach/shoreline in close proximity to the lost beach/shoreline area.

While in concept, acquiring new beachfront/coastal property would be the most direct mitigation approach, in practice, finding and securing high-demand beachfront property that can be used as a beach, subject to natural erosion processes, and further, can persist over time amidst geomorphological processes, sea level rise, etc., is very difficult. At the same time, the impacted area quantifications help ensure that the beach impacts of the armoring are understood and that the offsetting mitigation is roughly proportionate to the quantified impact. For example, in the past the Commission has looked at several ways to value lost beach and shoreline areas in order to determine appropriate in-lieu mitigation fees, including evaluating the recreational value of the beach/shoreline in terms of the larger economy, as well as the real estate value of property acquisition necessary to accommodate an area that could be created through natural erosion.

In terms of the recreational beach/shoreline value, the Commission has recognized that in addition to the more qualitative social benefits of beaches and shoreline area (e.g., recreational, aesthetic, habitat values, etc.), beaches and shoreline areas provide significant direct and indirect revenues to local economies, the state, and the nation. It is well known that the ocean and coastline of California contribute greatly to the state's economy through activities such as tourism, fishing, recreation, and other commercial activities. There is also value in just spending a day at the beach and having wildlife and clean water at that beach and being able to walk along a stretch of beach and shoreline. There are also societal benefits of beaches and shoreline area, including ways in which they contribute to local community and state social fabric and cultural identity. However, it can be difficult to put a price tag on these types of benefits, including 'existence' values, where people are asked how much it is worth to them for a beach to exist, even if they do not visit the beach or seldom visit the beach. Depending on the person, even one beach can be priceless.

Thus, these types of beach impacts are, in many cases, difficult to quantify. In other cases, including where detailed visitation data is lacking, as it is here, the Commission has found that using a real estate valuation method as a basis for identifying mitigation values allows for objective quantification of the value of lost beach and shoreline area,

and that this valuation is appropriate both in terms of the scope of impacts and the rational basis for applying such methodology.[41] This method requires an evaluation of the cost of property that could be purchased and allowed to erode and turn into beach naturally to offset the area that will be lost due to the construction and continued placement of the proposed armoring over time.

Toward this end, the market values of nearby properties along West Cliff Drive between Columbia Street and David Way near the project area supply a means to identify what it might cost to purchase such property and allow it to erode in this way to create offsetting beach/shoreline recreational space. Specifically, this review was conducted by looking at the sale of properties in the immediate vicinity of the project area within the last five years. This value is then divided by the property square footage to arrive at a price per square foot. The price per square foot calculated value serves as a way to gauge the cost of acquiring an equivalent shoreline/blufftop property, where any development could be removed, and then the area could be allowed to erode to provide an equivalent amount of beach and shoreline area to that which will be lost over the mitigation timeframe.

This evaluation focused on five properties along West Cliff Drive just inland of the project area, all residential and primarily single-family homes. The range of values starts at the high end for the property at 940 West Cliff Drive with a value of $602 per square foot, to the low end for the property at 974 West Cliff Drive with a value of $241 per square foot, with an average of $421 per square foot.[42] This average per square foot value represents a reasonable estimate of the market value of properties within the proximate area of the subject site based on actual sales data in the last five years.

Applying this average land acquisition value of representative properties along West Cliff Drive to the 42,800 square foot impact identified would result in a mitigation fee of approximately $18 million for the loss of beach and shoreline use areas through 2046 (i.e., 42,800 square feet (area of beach lost due to long-term erosion) x $421 per square foot = $18,018,800). The Commission finds that this potential mitigation fee amount is most closely tied to specific property values in the vicinity of the project and is thus both reasonably related and roughly proportional to the anticipated loss of beach and shoreline recreational use areas due to the project through 2046.

Retention of Potential Beach Material

The final Section 30235 impact calculation pertains to the loss of sand and sand generating materials due to the project and the way that loss affects the larger sand supply system. Beach sand material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves; and from coastal dunes and bluffs. Bluff and shoreline retreat is one of several ways that sand is added

[41] See, for example, CDPs 2-10-039 (Land's End Seawall), 2-11-009 (City of Pacifica Shoreline Protection), A-3-PSB-12-042 (Capistrano Seawall), A-3-PSB-12-043 (Vista del Mar Seawall), 3-16-0345 (Honjo Seawall), 3-18-0720 (Candau Armoring), 3-19-0446 (Rockview Seawall and Accessway), 3-19-1287 (Fanshell Beach 17-Mile Drive Armoring), 3-20-0166 (Wavefarer Partners LLC Armoring), 3-22-0440 (Casanova Armoring), and 3-22-1027 (Hofmann Seawall).

[42] The properties in this evaluation include the following addresses: 1056 West Cliff Drive, 1004 West Cliff Drive, 974 West Cliff Drive, 940 West Cliff Drive, and 936 West Cliff Drive.

to the shoreline sand supply system. Bluff retreat and erosion are natural processes resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse of caves, saturation of the bluff soil from groundwater causing the bluff to slough off, and natural bluff deterioration. When the bluff is protected by a shoreline protective device, the natural exchange of material from the bluff to the beach is interrupted, and if the shoreline is eroding, will result in a measurable loss of material to the beach. In addition, sea level rise exacerbates these impacts, as mean sea level affects shoreline erosion in several ways, and an increase in the average sea level will worsen these conditions.

In these cases, bluff sediment would be added to the beach at these locations, as well as to the larger littoral cell sand supply system fronting the bluffs, if natural erosion were allowed to continue. The volume of total material that would have gone into the sand supply system over the lifetime of the shoreline structure would be the volume of material between (a) the likely future bluff face location with shoreline protection; and (b) the likely future bluff face location without shoreline protection. Using the Commission's methodology,[43] it was calculated that the amount of beach-quality sand that would be retained due to the armoring over 22 years would be equal to 200 cubic yards of sand per year, or approximately 4,400 cubic yards over the initial 22-year mitigation period. When added to the sand retention impacts from armoring extending back to the 1990s (some 1,000 cubic yards),[44] the total sand impact through 2046 is a loss of approximately 5,400 cubic yards that otherwise would have been added to the beach/littoral system absent the installation of the armoring.

To mitigate for this loss of sand, the Commission oftentimes requires payment of an in-lieu fee to contribute to ongoing sand replenishment or other appropriate mitigation programs. Typically, the Commission has mitigated for sand retention impacts with an in-lieu fee based on the cost of buying and delivering an equivalent volume of beach quality sand to the affected area. The Commission has in the past used the cost of beach quality sand per cubic yard to calculate the sand supply impact fee. Based on recent estimates of costs for beach quality sand for other projects, the cost of purchasing and delivering 5,400 cubic yards of beach quality sand is currently approximately $61 per cubic yard. Thus, an in-lieu fee to address this sand supply impact would be approximately $330,000 (i.e., $61/cubic yard x 5,400 cubic yards = $330,000).

Approvable Mitigation

Accordingly, the value associated with the proposed project's sand supply and related beach/shoreline loss impacts through 2046 is approximately $18.4 million (approximately $18,018,800 in passive erosion impacts + $330,000 in sand retention

[43] Sand supply loss is calculated with a formula that utilizes factors such as the fraction of beach quality material in the bluff material; the length of time the back beach will be fixed; the predicted rate of erosion with no seawall; the height of the seawall; and the width of property to be armored. In this case, the fraction of beach quality material is estimated to be 28%; the height of the infill walls is on average 15.25 feet; the width of the shoreline that is armored is 764 feet; the average rate of retreat is 0.5 feet per year; and the initial mitigation period is 22 years.

[44] Using the same erosion rate of 0.5 feet per year, 28% sand content, an average height of 15.25 feet, and 35 linear feet (since the 1990s) and 445 linear feet (since the 2000s).

impacts = $18,348,800), which could be accommodated by collecting a mitigation fee in that amount. While requiring a mitigation fee can commensurately mitigate for these impacts, the Commission has also instead relied upon the provision of in-lieu public recreational access improvements to offset sand supply loss impacts, particularly when a public agency is an applicant for a shoreline armoring project. The use of in-lieu public recreational access projects as mitigation can allow for meaningful improvements to public recreational access infrastructure and utility that can be realized in the near term and in the area of impact. The idea is typically to acknowledge that the value of a fee diminishes over time in terms of what it can result in, and improvements only become more expensive over time, and to place a premium on improvements that can be realized in the near term. Here, the City has developed a mitigation package consisting of the following.

First, the project is partly self-mitigating because re-opening West Cliff Drive and the coastal pathway re-established access to and along this stretch of coastline, representing a rather significant shoreline public access benefit in and of itself. In fact, it is the City's position that armoring the shoreline as proposed is itself a public benefit as doing so preserves the integrity of the West Cliff Drive right-of-way and the associated public utilities, which can be considered mitigation for the impacts caused by the armoring. While there is little doubt regarding the public access and recreational value of West Cliff Drive, armoring nevertheless results in public recreational access impacts (like the loss of actual beach), and oftentimes the impacts result in public recreational access tradeoffs. For example, in the case here, the proposed armoring facilitates the recreation and reopening of the blufftop recreational path at the expense of occupying physical space on the beach and rock shelf, and limiting the ability of the shoreline to adapt naturally and create new beaches/shoreline recreational areas, including for surfing. In other words, there are benefits to blufftop recreational users, but noteworthy losses to beach and rock shelf users (and in some cases, offshore recreation and/or downcoast beach users as well). While reestablishing the public recreational access path is vitally important and serves a diverse array of public recreational access users including residents and visitors alike, and can be part of an overall mitigation package, reopening an existing recreational path does not by itself mitigate for the above-described impacts through the initial mitigation period to 2046 given that the armoring nevertheless will result in new beach/rock shelf impacts.

Thus, and second, the City has put together a package of public recreational access enhancement projects designed to offset the public recreational access impacts. Specifically, the City is proposing the following projects, which are proposed to be implemented in the short term (see **Special Condition 1**):

- Riprap removal at Mitchell's Cove, the base of the Indicator stairs, and Cowell Beach (see **Exhibit 4**).

- Stairway improvements to two surf access stairways at Cowell Beach and Indicators (i.e., at the Surfer's Statue).

- Safety improvements including new crosswalks, striping, curbs, and sidewalk repairs between Swanton Boulevard and David Way.

- Landscaping improvements, including removal of non-native/invasive species and restoration of landscaped areas with native, drought-tolerant species found in the Central Coast of California.

Third, the City has agreed to other longer-term public access enhancement projects (i.e., that require time to secure funding, develop plans, etc.) (see **Special Condition 1**). These projects include:

- Installation of doggy mitt stations at the entrance to Its Beach and Mitchell's Cove.

- Commitment to pursue funding to install a water fountain/bottle refill/doggy bowl station between Natural Bridges and Lighthouse Point.

- Coordination with California State Parks to expand parking lot hours at certain state-owned parking lots along West Cliff Drive.

Fourth, the City has agreed to implement specific projects intended to offset the visual impacts associated with shoreline armoring projects (discussed further in the 'Public Views' analysis below) (see **Special Condition 1**). These projects include:

- Removal of debris (e.g., concrete/aggregate pathway/roadway, stairway railings, etc.) between Lighthouse Point and the Surfer's Statue.

- Removal of graffiti and implementation of strategies to deter graffiti along West Cliff Drive.

- Visual enhancements to an existing retaining wall at Mitchell's Cove (installed in the 1990s) to better blend in with the surrounding natural bluff and adjacent infill wall.

And finally, the City has agreed to identify additional public view and public access enhancements that can be applied along West Cliff Drive (see **Special Conditions 4 and 5**), as well as develop a set of design guidelines for the West Cliff Drive corridor (see **Special Condition 6**). With respect to Special Conditions 4 and 5, the intent is for the City to augment the planning it is already undertaking via its LCP-required Shoreline Adaptation Management Plan, or SAMP, process to identify additional public view and access enhancements (e.g., providing additional public access amenities such as picnic tables, benches, and overlook areas, better separating pedestrians, bicyclists, and vehicle users, enhancing beach accessways, additional landscaping/removal of derelict infrastructure, etc.) that can be implemented in both the near term (i.e., projects that are more 'shovel ready' and are to be carried out now as mitigation for this CDP) and longer term (i.e., projects with more study/lead time required but could be undertaken in the future) in the corridor to enhance public recreational access and views. Such enhancements are meant to be ongoing and adaptive to on-the-ground conditions and needs as they are identified, and further allow the City flexibility to implement such enhancements as funding mechanisms are identified. And in terms of the guidelines, such guidelines would be designed to support outcomes that lead to enhanced public views and provide for a unified design aesthetic for both public infrastructure and natural features within the West Cliff Drive Corridor, all with the goal of seamlessly integrating the infrastructure into the natural environment. The guidelines would provide clear

direction and a vehicle to ensure visual enhancement opportunities are realized for all applicable projects along West Cliff Drive (e.g., emergency projects, phased-adaptation projects, and capital projects), and would be required to be added to the LCP and thus enforceable from a regulatory perspective.

Overall, in this case the Commission finds it reasonable to mitigate for the above-identified armoring impacts via the mitigation package described above. This aspect of the mitigation package strategy and approach is similar to compensatory projects and mitigation packages required by the Commission in the past.[45] In addition, this approach will allow for public access and visual improvements to be realized in the very near term, providing fairly immediate and tangible public benefits as opposed to an overall single in-lieu fee approach that may not be used or applied for some time, thus reducing its effectiveness. In short, the above-described access mitigation package constitutes an appropriate and adequate compensatory mitigation package to offset the impacts identified above, and as conditioned, the project satisfies the Coastal Act Section 30235 tests for armoring to protect the existing and coastal-dependent road and pathway.

Long-Term Stability, Maintenance, and Risk

Coastal Act Section 30253 requires the project to assure long-term stability and structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future. This is particularly critical given the dynamic shoreline environment in this area. Also critical to the task of ensuring long-term stability, as required by Section 30235, is a formal long-term monitoring and maintenance program. If the subject armoring were damaged in the future (e.g., as a result of wave action, storms, etc.), it could lead to a degraded public access condition. In addition, such damage could adversely affect nearby beaches and recreational use areas by resulting in debris on the beaches and/or creating a hazard to the public using beaches and offshore areas.

Therefore, in order to find the proposed project consistent with Coastal Act Section 30253, the project must be maintained in its approved and required state. Further, in order to ensure that the City and Commission know when repairs or maintenance are required, the City must regularly monitor the condition of the approved project, particularly after major storm events. Such monitoring will ensure that the City and the Commission are aware of any damage to or weathering of the armoring and other project components and can determine whether repairs or other actions are necessary to maintain the completed project in its approved state before such repairs or actions are undertaken. To assist in such an effort, monitoring plans should provide vertical and horizontal reference distances from armoring structures to surveyed benchmarks for use in future monitoring efforts.

Thus, to ensure that the project is properly maintained to ensure its long-term structural stability, **Special Condition 10** requires regular submission of monitoring and

[45] See, for example, CDPs 2-17-0702 (Sharp Park Armoring), 3-02-107 (Podesto), 2-16-0684 (Aimco), A-3-SCO06-006 (Willmott), 3-09-029 (Rusconi), 3-09-042 (O'Neill), 3-10-044 (Crest Apartments), 2-11-009 (Pacifica drainage armoring), A-3-PSB-12-0042 and -0043 (Pismo Beach Oceanview Boulevard Seawalls), A-3-SCO-07- 015/3-07-019 (Pleasure Point Seawall and Parkway), 3-14-0488 (Iceplant LLC), and 2-21-0912 (SFPUC Ocean Beach armoring).

maintenance reports. The reports shall provide for evaluation of the condition and performance of the proposed project and overall bluff stability, and shall provide for necessary maintenance, repair, changes or modifications. **Special Condition 11** allows the City to maintain the project in its approved state, subject to the terms and conditions identified by the special conditions. Future monitoring and maintenance activities will be understood in relation to clear as-built plans that will be submitted by the City (**Special Condition 3**).

In terms of recognizing and assuming the hazard risks for shoreline development, the Commission's experience in evaluating proposed development in areas subject to hazards has been that development has continued to occur despite periodic episodes of heavy storm damage and other such occurrences, as well as more steady erosion and other coastal hazards, all as may be exacerbated by sea level rise. Separate from its impact on coastal resources directly, development in dynamic environments is also susceptible to damage due to such long-term and episodic processes. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the many, many millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden for damages onto the people of the State of California, the Commission has in the past required applicants to acknowledge site hazards and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. Accordingly, this approval is conditioned for the City to assume all risks for developing at this location (see **Special Condition 9**).

Finally, the Commission has long analyzed consistency with Section 30253 in terms of analyzing a project's risks and structural integrity over time, taking sea level rise into account. However, Section 30270 now explicitly requires the Commission to consider sea level rise when analyzing risks under Section 30253 and also requires the Commission to assess, and to the extent feasible, avoid and mitigate the adverse effects of sea level rise. The findings above identify and assess the project's hazards-related impacts in a manner that accounts for sea level rise. As described above, the Commission has also imposed conditions to avoid and mitigate the adverse, hazard-related impacts of sea level rise, as they relate to these projects. For example, **Special Condition 10** requires submission of monitoring and maintenance reports to ensure that the projects remain stable over time, and **Special Condition 11** authorizes maintenance of the projects to ensure they do not erode or cause destruction of the site or surrounding area over time as sea levels rise and potentially cause the project to deteriorate. The above findings also describe how it is not feasible to completely avoid all project-related impacts because there is no less damaging alternative to the armoring in this instance. With these findings and conditions, the projects are consistent with Section 30270.

Coastal Hazards Conclusion

The proposed project, as conditioned for a mitigation package with both current and future (i.e., additional and ongoing) commitments by the City to enhance the entirety of the West Cliff Drive corridor, can thus be found consistent with the Coastal Act's coastal hazards provisions cited above.

F. Public Access and Recreation

Applicable Coastal Act Provisions

The Coastal Act grants a high priority to public recreational access uses and activities to and along the coast. The Act protects and encourages lower-cost visitor and recreational facilities where feasible and states a preference for developments providing public recreational opportunities. In addition, the Coastal Act requires that oceanfront land and upland areas suitable for recreational use be protected for recreational uses. Coastal Act Sections 30210 through 30213, and 30220 through 30223 specifically protect public access and recreation. In particular:

> ***Section 30210.*** *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> ***Section 30211.*** *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> ***Section 30212.*** *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….*
>
> ***Section 30213.*** *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*
>
> ***Section 30220.*** *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*
>
> ***Section 30221.*** *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*
>
> ***Section 30222.*** *The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.*
>
> ***Section 30223.*** *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section *30240(b)* protects sensitive habitat, as well as parks and recreation areas, such as the adjacent beach, and the West Cliff Drive recreational trail and corridor:

> ***Section 30240(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.*

These overlapping policies protect access, to and along the shoreline and to offshore waters for public access and recreation purposes, particularly free and low-cost access.

In addition, the City of Santa Cruz LCP includes public access and recreation provisions that reflect Coastal Act requirements:

> ***LUP Land Use Policy 3.5.*** *Protect coastal recreation areas, maintain all existing coastal access points open to the public, and enhance public access, open space quality and recreational enjoyment in a manner that is consistent with the California Coastal Act.*
>
> ***LUP Land Use Policy 3.5.1.*** *Ensure that development does not interfere with the public's right to access the ocean (where acquired through use or other legislative authorization).*
>
> ***LUP Land Use Policy 3.5.3.*** *Require new development and public works projects to provide public access from the nearest public roadway to the shoreline and along the coast, except where it is inconsistent with public safety, protection of fragile coastal resources, or where adequate access exists nearby.*
>
> ***LUP Land Use Policy 3.5.5.*** *Develop and implement plans to maximize public access and enjoyment of recreation areas along the coastline.*

Analysis

Shoreline protective devices have significant adverse impacts on public access and recreation. Section 30210 of the Coastal Act requires the Commission to provide the general public maximum access and recreational opportunities, while respecting the rights of private property owners. Section 30211 prohibits development from interfering with the public's right of access to the sea where acquired through use or by legislation. In approving new development, Section 30212 requires new development to provide access from the nearest public roadway to the shoreline and along the coast, save certain limited exceptions, such as existing adequate nearby access. Finally, the Coastal Act Section 30210 direction to maximize access represents a different threshold than to simply provide or protect such access, and is fundamentally different from other like provisions in this respect. In other words, it is not enough to simply provide access to and along the coast, and not enough to simply protect access; rather such access must also be maximized. This terminology distinguishes the Coastal Act in certain respects, and provides fundamental direction with respect to projects along the California coast that raise public access issues, like this one. In addition, the mean high

tide line will move landward over time depending on the beach profile, seasonal tidal activity, and continued sea level rise. Therefore, it is also critically important that the Commission assess whether the project, which as conditioned will mitigate for coastal resource impacts through 2046 (i.e., the initial 20-year mitigation period; see also the preceding "Coastal Hazard" findings), would impact public access and recreation over this time period, and, if so, provide measures to avoid or appropriately mitigate such impacts.

The shoreline along West Cliff Drive offers a plethora of public access opportunities where residents and visitors can walk, bike, and/or drive the approximately 3-mile stretch along the coast with almost entirely uninterrupted views of the shoreline and ocean. West Cliff Drive has a number of coastal overlooks, informal access trails, and coastal stairways leading to various pocket beaches, as well as public access amenities such as benches, trash/recycling receptacles, and parking spaces. Particular highlights along West Cliff Drive include the Steamer Lane surfing area (a series of world-renowned surf breaks and one of the most iconic surf locations in California), Lighthouse Field State Beach, Mitchell's Cove, and Natural Bridges State Beach. In addition, the Santa Cruz Beach Boardwalk and the Santa Cruz Municipal Wharf are located within easy walking distance of the northern portion of West Cliff Drive, and thus this stretch of coast is particularly important for free and low-cost public recreational access.

West Cliff Drive draws tourists and locals alike for the natural beauty of the coastline and the variety of public recreation and access amenities found along this stretch of coast and is open year-round with no entrance or parking fees. Although the project resulted in the temporary closure of portions of West Cliff Drive when the road was damaged and the emergency work was constructed,[46] in the long-term it did and will continue to improve opportunities for public access and recreation along West Cliff Drive by allowing for the continuation of a major public recreational access path and more holistically addressing bluff erosion issues and protecting some of the most threatened portions of the road and pathway and/or realigning the road and pathway to be safe from coastal hazards threats for the medium term. In conformance with Section 30210 of the Coastal Act "maximum access" for the public shall be provided from a long-term perspective. To not proactively adapt to the increasingly severe impacts of sea level rise and flooding would imperil future public access, primarily due to anticipated continued and accelerated erosion and storm damage.

However, as discussed in the "Coastal Hazards" section above, shoreline structures can have a variety of negative impacts on coastal resources, including adverse effects on beaches and sand supply, which ultimately result in the loss of the beach and associated impacts to public access.[47] The proposed project would have both public recreational access impacts and benefits, where impacts are focused on beach/shoreline loss, especially over time, and the benefits are protection of West Cliff Drive (and other public infrastructure), reopening of the coastal trail pathway and road, and other access improvements (all above 'Coastal Hazards' findings are incorporated

[46] The portion of the project at 800 West Cliff Drive will require temporary closure of one lane of traffic.

[47] Ibid (see list of cases in footnotes above).

herein by reference). More specifically, the identifiable impacts on public recreational access include the loss of the beach/shoreline recreational use areas where the armoring is sited and the incremental loss of shoreline due to the "coastal squeeze." In other words, even with its positive access attributes, the proposed project would lead to a loss of available beach and shoreline recreation area for public access and recreation because the armoring occupies shoreline bluff space and the ocean interface will gradually move landward as the shoreline erodes and as sea levels rise, thus 'squeezing' available shoreline recreational space between the ocean and the proposed armoring. In fact, sea level is expected to rise between 0.5 feet to 1.2 feet by 2040[48] and as sea level rise worsens, less of the beach/shoreline area seaward of the armoring structures will be available and such availability will be for a shorter period of time each day. In addition to the loss of recreational shoreline area, the loss of beach/shoreline associated with the project could also cause changes to the natural wave refraction which could impact offshore recreational uses, which will only be exacerbated as the years go on.

In terms of potential surfing impacts, as described in some detail earlier, West Cliff Drive is an internationally known and loved world-class surfing area with surf breaks fronting most of the shore, including in the project area. The high quality of waves makes these surfing areas a unique and particularly valuable recreational resource that is clearly protected by the Coastal Act sections cited above. It is a water-oriented recreational resource of the highest magnitude that cannot be provided at inland areas, let alone duplicated along the shoreline, of which there are a finite number in California.

More technically, several relationships have been developed to establish wave characteristics. One relationship relates wave characteristics to beach slope and wave steepness.[49] A second relationship compares the wave vortex geometry to the orthogonal seabed gradient.[50] Both these relationships correlate the shape and energy of the waves to the sea bottom, reflecting the importance of sea bottom bathymetry on wave conditions. A steep seabed gradient will produce a steep-faced wave. The alignment of the wave relative to the seabed will determine the peel angle. Face steepness and peel angle are key components to the quality of surfing waves.

Potential impacts from the proposed project on West Cliff surfing conditions are essentially three-fold: one, the degree to which the armoring itself affects the surf break (e.g., 'muddling' the break via increased wave refraction); two, the degree to which it starves the break of sandy materials that can help create sandbars and other wave tripping features; and three, the degree to which the armoring in tandem with sea level

[48] *State of California Sea-Level Rise Guidance (2024 Science and Policy Update); California Sea Level Rise Science Task Force, California Ocean Protection Council, California Ocean Science Trust*; Sacramento, California; July 1, 2024; 1-101.

[49] Called the "Irribarren number," the "surf scaling parameter," or "surf similarity parameter" by different researchers.

[50] The full relationship developed by Mead and Black ("Predicting the Breaking Intensity of Surfing Waves") is: Y = 0.065X + 0.821, where Y is the wave vortex ratio and X is the orthogonal seabed gradient. This quasi-empirical relationship was developed through the study of 48 images from 23 different world-class surfing breaks. There were not any Santa Cruz area surf breaks included in this analysis.

rise leads to the break being ‘flooded out’ because it cannot migrate inland (i.e., it can’t establish new more inland wave tripping features as sea levels rise and as natural erosion is halted).

In terms of loss of sand, as indicated earlier, the project would lead to a loss of about 5,400 cubic yards of materials through 2046 that would no longer make their way into the offshore sand system. However, the manner in which such sand may contribute to offshore sandbars to the benefit of surfing is unclear. Sandbar formation is dependent on a number of dynamic variables, and it is difficult to near impossible to pinpoint the degree to which such loss of sand from these discrete locations may affect the surf breaks, if at all. Moreover, with the exception of surfing at Cowells and Its Beaches, the surf breaks across West Cliff mostly consist of points or reef breaks that don’t appear to heavily rely on sand for wave formation. Rather, these breaks typically thrive at low tides with moderate to large swells. In terms of the waves that are sand dependent, the breaks at Cowells and Its Beaches typically thrive on large influxes of sand associated with large winter storms, rain, and littoral drift. Accordingly, the loss of sand from fixing the back beach from the subject project is not likely to meaningfully impact either Cowells or Its Beaches; however, the cumulative impact from armoring the urbanized Santa Cruz coastline and the resultant sand deprivation undoubtedly will have some impact over time, including waves further downcoast on the predominate eastern littoral drift, although it is difficult to quantify.

More significantly, changes in water depth across the surfing area as sea levels rise is a little clearer of a phenomenon, as a rise in water levels means that the same exact swell will ‘trip’ on different underwater features, thus changing the location, and possibly the orientation, of the surf break. As previously described, the waves across West Cliff typically thrive at lower tides, and thus sea level rise arguably poses the greatest risk to surf breaks across West Cliff.

Over the long term, the proposed project will “fix” the back beach. That is, the project will prevent the natural process of erosion from occurring, and thereby establish a permanent location to the coastal bluff. Under natural conditions, the bluff would be eroded by waves and would move landward over time. Using the estimated long-term erosion rate of 0.5 feet per year, an unarmored bluff at this location would be expected to retreat landward approximately 25 feet over the next 50 years at this location. This would move landward the point where the ocean interacts with the bluff. Thus, under natural shoreline retreat conditions, the position of ocean/bluff interaction would move inland over time.

The installation of armoring generally prevents surf break from adapting to increased sea levels, because in the absence of the landward migration of the bluff, areas of shallow water will continuously decrease. Under this situation, breaking waves would occur closer and closer to shore, and eventually, over the very long-term, become unsurfable. However, in this case, save for the rather fickle “Finger Bowl” wave which already breaks on rare occasions subject to very specific tide, swell, and sand elevation conditions near the Bethany Curve armoring, there are no major surf breaks within the project bounds, and thus the installation of the subject armoring shouldn’t have significant impacts on any such major surf break areas, other than cumulatively as

these projects affect up and downcoast breaks, as discussed above. With respect to Finger Bowl, the project includes the placement of riprap fronting a sea cave at 1030 West Cliff, which may minimize the utility of that area—not for riding the wave itself, per se, but instead as a spot to walk back up the beach, watching active body surfers, or as an area to "straighten" out if the surfer didn't "make the wave" and ride the wave across. However, again, Finger Bowl already breaks on very rare conditions, and some surfers speculate that the wave was already reaching the end of its useful life due to the eroding cliff (which created the "finger" that gave it its name). Accordingly, it's difficult to say with certainty how and whether the riprap at 1030 may impact the overall surfing experience at Finger Bowl.

As to the potential for the proposed project to muddle the waves by increasing the reflection from waves bouncing off the armored bluffs, other than this phenomena at Finger Bowl as described above, because none of West Cliff's other major surf breaks are within the project limits, the proposed project will not muddle the waves of any such primary breaks. That said, and especially during times of large swells, almost anywhere fronting on West Cliff can be surfable, so some degree of muddling of these intermittent breaks seems likely, but it is hard to pinpoint with any degree of certainty. Overall, it appears that the degree to which surf break muddling is attributable to the project is likely fairly minimal.

In sum, although the project may result in some limited impacts to Finger Bowl specifically, and cumulatively and broader impacts as it relates to up and downcoast surf breaks, such impacts are also offset by discernible surf access benefits, including the rehabilitation of two surf access stairways at Cowell Beach and Indicators, the removal of riprap/debris at Cowell Beach, Indicators, and also immediately upcoast of Finger Bowl at Mitchell's Beach (see **Special Condition 1**). In fact, the City met with a number of the "Finger Bowl" enthusiasts to discuss riprap removal at Mitchell's Beach and adjacent to Finger Bowl. The City has elected to pursue riprap removal at two of the three priority locations identified by the Finger Bowl enthusiasts but determined that the third location would be too difficult with the errant rocks being rather submerged and seldom exposed from water and sand. The City opted to prioritize the other two locations because riprap removal is more likely achievable and because removing riprap at the other two locations would also serve to benefit low tide beach users. Although the City ultimately determined one of the priority locations identified by the Finger Bowl enthusiasts to be infeasible, the City opted to refine their project to also include riprap removal at Cowell Beach and Indicators, two very popular surf locations. Accordingly, while the project may not address all of the riprap identified by the Finger Bowl enthusiasts, and includes the placement of new riprap fronting a sea cave at 1030 West Cliff that is adjacent to the Finger Bowl wave, as a whole, the project's impacts to surfing appear to be relatively limited, and appear to be offset by the surf mitigations included (i.e., riprap removal, surf stairway enhancements, etc.).

The project will also have temporary impacts to public recreational access, primarily related to temporary construction impacts that require road and pathway closures to ensure public safety during construction, potential temporary reductions in available parking spaces, and temporary impacts to traffic flow as vehicles (but not bicyclists or pedestrians) were rerouted along inland routes while the infill walls were being

constructed. There are also direct impacts associated with construction, including noise, equipment, and public access restrictions on recreational areas fronting the armoring sites. While not insubstantial, these impacts were limited to the construction period, which lasted approximately two years for the emergency development and will last for an additional approximately 7 months (albeit in a different location along West Cliff Drive) for the portion of the project at 800 West Cliff Drive. Importantly, these public recreational use impacts can be mitigated through the City's proposed best management practice and construction parameters that limit the area of construction, fence off the minimum construction area necessary, keep equipment out of coastal waters, require off-beach equipment and material storage during non-construction times, and restore all affected public access areas at the conclusion of construction. A construction plan is required to implement these measures (see **Special Condition 2**). In addition, to provide maximum information to the public during all construction, the City must maintain copies of the CDP and approved plans available for public review at the construction sites, as well as provide a construction coordinator whose contact information is posted at the sites to respond to any problems and/or inquiries that might arise (see **Special Condition 2**). Lastly, this permit does not constitute a waiver of any public rights that might exist on the property (see **Special Condition 13**).

Overall, the proposed project represents a nuanced example of weighing public recreational access benefits with impacts. On the one hand, the project would reopen an important public recreational access route and adapt that accessway to preserve these public recreational access benefits in the long term, while also making other public recreational access improvements along the corridor (see **Special Conditions 1, 4, 5 and 6**). On the other hand, with the proposed project, a substantial portion of the bluff would be armored and will ultimately lead to loss of shoreline seaward of the armoring. Put another way, the project represents a tradeoff of sorts between letting nature run its course and naturally creating more shoreline width and space for waves to migrate, and attempting to better 'control' nature for what is viewed as more valuable public recreational access purposes. These kinds of tradeoffs are increasingly at the very heart of armoring debates in California, and it is no different here. And while the tradeoffs here seem appropriate for all the reasons discussed above, that is not to say that these same tradeoffs will necessarily make sense in other cases, including even other cases along the West Cliff corridor, where case and context specific evaluations may drive different outcomes. Ultimately, although the armoring itself has significant public recreational access impacts, the project is structured to try to avoid and minimize those impacts, and to offset unavoidable impacts, all as much as feasible, including via the project design and its mitigation requirements. Yes, there are tradeoffs, but that is unavoidable in a case like this, and the project should be able to address Coastal Act public recreational access requirements as much as is possible with a project approval of this sort.

In conclusion, provided the Applicants implement the project, including the mitigation package, per the terms and conditions of this approval, including reassessment of such impacts on a twenty-year cycle, the project can appropriately offset the public recreational access impacts associated with it. As conditioned, the Commission finds the project consistent with the Coastal Act access and recreation provisions cited above.

G. Marine and Biological Resources

Applicable Coastal Act Provisions

Coastal Act Sections 30230 and 30231 protect marine and inland watercourse biological resources, stating:

> ***Section 30230.*** *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.*** *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.*

In addition, Section 30233 only allows for fill of coastal waters in certain limited circumstances, and only when such projects are the least environmentally damaging feasible projects, and where all unavoidable impacts are mitigated. Section 30233 states in applicable part:

> ***Section 30233.*** *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines. (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas. (6) Restoration purposes. (7) Nature study, aquaculture, or similar resource dependent activities. …*

The City of Santa Cruz LCP mirrors the Coastal Act language and specifically protects the coastal ecosystems of the Monterey Bay Marine Sanctuary:

> ***LUP Land Use Policy 3.7.*** *Recognize and protect the Pacific Ocean and Monterey Bay as a valuable open space, natural resource, and National Marine Sanctuary.*
>
> ***LUP Environmental Quality Policy 4.1****. Protect the natural ecosystem of the Monterey Bay Marine Sanctuary and the shoreline.*
>
> ***LUP Environmental Quality Policy 4.1.3****. Require coastal protective structures, signs and public facilities to be sensitive to the natural setting and minimize the alteration of the natural shoreline.*
>
> ***LUP Environmental Quality Policy 4.1.5****. Protect the quality of water discharged into the Bay and allow no dumping of materials into the Monterey Bay.*
>
> ***LUP Environmental Quality Policy 4.6****. Encourage the planting and restoration of native rather than non-native vegetation throughout the City and also in areas where plants or habitat are diseased or degraded.*

Analysis

As discussed above, the project area is located along the ocean-facing side of West Cliff Drive and adjacent to the Monterey Bay National Marine Sanctuary, which is recognized for its unique and abundant marine life. Runoff here has the potential to discharge into the Sanctuary, including at one of the primary recreational water use areas within the Sanctuary. The Sanctuary is home to some 26 Federal and State Endangered and Threatened species and a vast diversity of other marine organisms. In addition, the area offshore of the project sites include popular surfing and beach activity destinations. As such, the Commission recognizes the marine and recreational resources within the vicinity of the proposed project as sensitive coastal resources that are of high state and federal importance.

The proposed project, including construction activities, would take place at the shoreline interface, including in the intertidal area. Coastal armoring has, at times, been shown to have significant impact on the habitat, biodiversity and functioning of beach and shoreline ecosystems, as well as their long term health and resilience, even if these effects are oftentimes difficult to quantify, including because beaches and shorelines are quite dynamic.[51] Sandy beach ecosystems support unique and often under-appreciated biodiversity and provide a suite of ecosystem services and functions.[52] These functions include rich invertebrate communities and food webs that are prey for birds and fish,

[51] See, for example, Defeo, O., McLachlan, A., Schoeman, D.S., Schlacher, T.A., Dugan, J., Jones, A., Lastra, M. and Scapini, F., 2009. Threats to sandy beach ecosystems: a review. Estuarine, coastal and shelf science, 81(1), pp.1-12; and Dugan, J.E., Hubbard, D.M., Rodil, I., Revell, D.L., Schroeter, S., 2008. Ecological effects of coastal armoring on sandy beaches. Marine Ecology 29, 160–170.

[52] See, for example, Nel, R., Campbell, E.E., Harris, L., Hauser, L., Schoeman, D.S., McLachlan, A., du Preez, D.R., Bezuidenhout, K. and Schlacher, T.A., 2014. The status of sandy beach science: Past trends, progress, and possible futures. Estuarine, Coastal and Shelf Science, 150, pp.1-10.

buffering of wave energy by stored sand, filtration of large volumes of seawater, detrital and wrack processing and nutrient recycling, and the provision of critical habitat and resources for declining and endangered wildlife, such as shorebirds and pinnipeds.[53]

In terms of the requirements of Sections 30230 and 30231, the proposed project is expected to result in both temporary and longer-term impacts to these surrounding coastal water and beach/shoreline habitat areas, both from construction activities and the completed project. In terms of construction, the emergency work was completed over a period of approximately 2 years, where construction involved workers and equipment in the beach/intertidal area on top of and at the base of the bluffs. In addition, the proposed work at Lighthouse Field is expected to take approximately 7 months, where construction involves workers and equipment at the edge of the coastal bluff and within the Lighthouse Field grassland habitat area (which is grassland dominated by non-native species). During construction activities, the resource values of the affected areas may be reduced. Construction noise, vibration, and overall activities and human presence may adversely affect biological species and their habitat inside and adjacent to the established construction zones. The primary risk of disturbance from the realignment project would be to nesting birds and roosting bats, as well as overwintering monarch butterflies near the project area. These risks can be significantly minimized by appropriate construction methods and BMPs during construction (see **Special Condition 2**), but they likely cannot be eliminated entirely.

Longer term, two impacts on marine resources can be expected. First, the armoring is likely to degrade (as has the existing armoring at various locations within the project area), both on a slower and more consistent basis over time as well as episodically in larger chunks. Although the concrete that will be used is more inert than a number of other materials, it could still result in changes to the surrounding waters' water quality and habitat values, perhaps most obviously if larger chunks are dispersed into the ocean. Secondly, and as described earlier, armoring creates a barrier to natural shoreline migration, which leads to the types of sand and shoreline impacts previously described, including a narrowing and disappearing beach/shoreline area overall. That same narrowing and disappearing beach/shoreline also changes shoreline habitat conditions, including as it relates to accumulating sand and supporting intertidal and near tidal biodiversity and wildlife.[54] Moreover, as climate change causes the seas to rise ever faster, intertidal and near tidal areas and their habitat values will be lost and 'drown out' at an increasingly faster pace when the shoreline is armored, as here in this case. Section 30270 of the Coastal Act, read together with Sections 30230 and 30231, requires the Commission to assess and, to the extent feasible, avoid and mitigate these types of impacts, including as it relates to sea level rise.

In terms of Section 30233, as described above, portions of the project appear to be

[53] See, for example, McLachlan A, Brown AC (2006) The ecology of sandy shores. 2nd edn, Academic Press, Amsterdam, 392 pp.; and Hubbard D.M., J.E. Dugan (2003) Shorebird use of an exposed sandy beach in southern California. Estuarine, Coastal and Shelf Science 58S:169–182.

[54] See, for example, Dugan, J.E., Emery, K.A., Alber, M., Alexander, C.R., Byers, J.E., Gehman, A.M., McLenaghan, N. and Sojka, S.E., (2017). Generalizing ecological effects of shoreline armoring across soft sediment environments. Estuaries and Coasts, 1-17.

located partially within coastal waters, and the project does not provide for one of the seven enumerated and allowed types of uses/development in coastal waters. However, Section 30235 provides more specific Coastal Act direction when armoring is allowed, and that more specific manifestation takes precedence over the allowed types of fills under Section 30233. In other words, if armoring meets 30235 tests for approval, as it does here, then that can serve as an override to the types uses or development that can fill coastal waters, and that override applies to this case. This override does not, however, negate meeting other Section 30233 requirements as much as possible, including that the project be the least environmentally damaging feasible alternative, and that the project includes feasible mitigation measures to minimize adverse environmental effects.[55]

As noted above, in addition to marine and shoreline habitat impacts, the project, namely the proposed realignment at 800 West Cliff Drive, is expected to have impacts to land-based, or terrestrial, habitats, specifically annual grassland habitat dominated by non-native species (e.g., *Avena barbata*). The project area for this site is a mix of annual grasslands (primarily vegetated with wild oat, brome grasses, and other non-native grass and oat species) and coastal bluffs (primarily vegetated with invasive iceplant). The proposed project area would not impact any land-based resources that would qualify as environmentally sensitive habitat areas (ESHAs).[56] However, a small portion of Lighthouse Field adjacent to the proposed new roadway realignment functions as a natural drainage/upland swale area (approximately 0.2 acres) and meets the Coastal Act's criteria for a one-parameter wetland due the presence of a wetland species. The proposed realigned roadway would impact a small proportion of this area (estimated at about 750 square feet, see **Exhibit 3**), but temporary and longer-term impacts from construction and roadway use/management, such as vegetation clearance, grading, and the use of heavy machinery in areas beyond the permanent development footprint may further affect the natural features of this location. A post-construction statement will verify the final acreage impacted by construction (see **Special Condition 7**).

Under Coastal Act Section 30233(a)(4), wetland fill/impacts can be allowable when the project's purpose is to render an incidental public service. The Commission has previously considered what constitutes an incidental public service on numerous occasions. First and foremost is whether the project is initiated by a public agency or utility for a public purpose, such as replacement of old railroad bridges (CC-059-09); expansion of a railroad line (CC-052-05, CC-086-03) or modifications to an airport (CC-

[55] Note that other non-marine resource/habitat resource issues associated with such fill are addressed in previous findings. Note too that the requirements of Section 30233(a) regarding mitigating impacts and identifying the least environmentally damaging feasible alternative would still apply. The intent of this finding is to explain the distinction between Sections 30233(a) and 30235 as it relates to armoring occupying coastal waters. Giving precedence to the more particular provisions of Section 30235 over the more general provisions of Sections 30233(a) is in accordance with generally applicable principles of California law (see, for example, Civil Code Section 3534 ("Particular expressions qualify those which are general")).

[56] Biological assessments for the project noted the presence of seaside wooly sunflower-seaside daisy-seaside buckwheat patches and arroyo willow thickets, both of which are considered sensitive natural communities. However, the proposed development and associated construction related impacts would not affect this area of Lighthouse Field State Beach.

058-02), or other public road/trail/access infrastructure.[57] In this case, the project is indeed a publicly owned and operated road and trail network. The project is also incidental in that the impact is quite small (and mostly temporary impacts related to construction and maintenance), and also is a product of the primary purpose of relocating threatened public access infrastructure (not an expansion of it, including any lane additions or other physical expansions, but rather retaining the road as two lanes) out of harm's way so as to avoid hard armoring and resultant adverse impacts associated with it. Indeed, realignment of the road is intended to reduce erosion impacts that would otherwise undermine the road and pathway, thus impacting public access along this stretch of coast.

Thus, the Commission finds in this case that: (1) the impact associated with the road realignment to address coastal hazards is for an incidental public service purpose, a permissible use under Coastal Act Section 30233(a); (2) as explained in the coastal hazards findings, this is the least environmentally damaging feasible alternative; and, as explained below, (3) the project includes appropriate mitigation measures to address resultant wetland impacts. Specifically, to address unavoidable impacts, the proposed project includes restoration and enhancement (e.g., riparian planting, invasive species removal, etc.) at Lighthouse Field State Beach and in coordination with California State Parks (see **Special Condition 14**). Pursuant to **Special Condition 7**, the City will be required to create or substantially restore an area at a ratio no less than 4:1 (i.e., four times the impacted area). The City would also be required to monitor and maintain the enhancement areas to ensure successful restoration efforts, including conducting maintenance as needed (i.e., watering, weed control, replacement of dead and dying plants, etc.). **Special Condition 7** also requires the City to submit monitoring reports that document the success of the restoration at three and five years post-approval, and to the extent the restoration goals have not been met, recommendations to increase the success of the restoration which shall be subject to Executive Director review and approval.

In short, the project would occur in and adjacent to important terrestrial and marine resources, and is expected to result in some unavoidable marine resource and terrestrial impacts. These impacts are allowable both because the Coastal Act includes an armoring override, and because the project incorporates appropriate mitigation measures (as described in previous findings). Therefore, as conditioned, the proposed project can be found consistent with the above referenced Coastal Act requirements.

H. Public Views

Applicable Coastal Act Provisions

The Coastal Act requires new development to be sited and designed to protect public views to and along scenic coastal areas, to be visually compatible with the character of

[57] Under *Bolsa Chica* (*Bolsa Chica Land Trust v. Superior Court* (1999) 71 Cal.App.4th 493) it was noted that "under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions. Roadway expansions are permitted only when no other alternative exists and the expansion is necessary to maintain existing traffic capacity."

the surrounding areas, and that visual quality of degraded areas is restored or enhanced:

> ***Section 30251.*** *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. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

In addition, the LCP also includes protections for public views, including requirements specific to the visual aesthetics of the coastline, and areas visible from public viewpoints, including as follows (emphasis added):

> ***LUP Community Design Policy 2.1.3****. Protect the Monterey Bay National Marine Sanctuary and the shoreline and views to and along the ocean, recognizing their value as natural and recreational resources.*
>
> ***LUP Community Design Policy 2.2.*** *Preserve important public views and viewsheds by ensuring that the scale, bulk and setback of new development does not impede or disrupt them.*
>
> ***LUP Community Design Policy 2.2.2.*** *Identify important vistas and view corridors of community wide value to be preserved and require development to provide visual and physical breaks to allow access to these areas.*
>
> ***LUP Parks and Recreation Policy 1.7.6****. Develop and implement an integrated design, land use, recreation, cliff stabilization, and landscaping plan for West Cliff… to enhance public access, safety and recreational enjoyment in these areas.*
>
> - *Analyze facilities and the need for additional rehabilitation of existing lighting, restroom, drinking fountains, **artistic and landscape enhancements**, benches, bike parking, directional and interpretive signs, accessways, stairways, overlooks, and improved safety proposals.*

Analysis

Much of the coastline of West Cliff Drive (particularly between Lighthouse Point and Mitchell's Cove) is armored, primarily in the form of riprap revetments but also via vertical seawalls, retaining walls, or sometimes a combination of two or more armoring types/features. The bulk of armoring fronting West Cliff Drive was installed prior to the Coastal Act and/or in subsequent years in response to large storms and swells, such as in response to the 1982-1983 El Niño. The result is a largely haphazard armoring array that interrupts and degrades the natural visual aesthetic of the coastal bluffs and pocket beaches. Although the armoring does not block blue ocean water views from the path

and roadway given that it is largely below the road grade, the armoring along West Cliff is visible from the ocean, beach, lower bluff areas, pathway, and along certain sections of the roadway where it curves. In other words, armoring along West Cliff is very pronounced and discernible.

In terms of the proposed project, the project has been designed to minimize the use of shoreline armoring to the maximum extent feasible. Although the project includes a substantial amount of armoring, the project also includes a significant stretch of managed retreat (i.e., the 800 West Cliff site), and importantly, in a location without existing armoring. In addition, where armoring was necessary, the armoring is colored and camouflaged as much as possible to blend in with the natural bluff. However, even with standard design protocols intended to mimic the natural surroundings, it is easy to differentiate between a manmade armoring structure and a natural bluff and in this case the armoring acts as a sort of “promenade” elevating the path and roadway from the bedrock platform. In other words, while efforts were made to make the project as visibly unobtrusive as possible, some unavoidable impacts to the viewshed remain. In addition, the project included grouted and ungrouted riprap components, which are generally more difficult to camouflage than, for example, seawalls. The existing public viewshed and landform has also been artificially manipulated for many years (see site area photos in **Exhibit 2**) including from the presence of unpermitted riprap that is proposed to be authorized via the subject CDP.

To address these impacts, the project is designed in a way that is sensitive to the natural environment, including requiring appropriate native landscaping throughout the project area to help blend the non-natural features into the shoreline environment and improve public views. The landscaping is required to be maintained over the life of the project, including via regular monitoring and replanting to ensure success (see **Special Condition 1**). **Special Condition 1** also codifies a series of other visual resource mitigations, including removal/restack of excess rock armoring in several locations, coloring the adjacent seawall to match the proposed ones and to abate graffiti, and removal of derelict infrastructure. In addition, as explained before **Special Condition 4** codifies the City’s commitment (through other planning efforts, namely the SAMP process) to identify public view enhancements (e.g., removing defunct infrastructure, continuing ongoing efforts to remove non-native and invasive plant species, consolidating ‘volunteer’ blufftop trails, etc.) that can be applied within the West Cliff Drive Corridor both now and in the future. The intent is that such enhancements are meant to be adaptive and respond to on-the-ground conditions and allow the City multiple avenues to fulfill their visual enhancement obligations. Similarly, **Special Condition 6** requires the City to compile a series of West Cliff Drive Design Guidelines (again, in line with other City planning efforts) that describe standard design guidelines to incorporate along West Cliff Drive, including related to signage, fencing, landscaping, etc., with the intent being that such guidelines lead to uniformity between different projects along West Cliff Drive in the future. Finally, temporary visual impacts during construction would occur, and would be required to be minimized through best management practices as required by **Special Condition 2**.

In addition, the proposed project includes a mosaic tile art mural along the interior and the landward exterior Bethany Curve Culvert headwalls (see **Exhibit 6**). In other words,

the mural would occupy the inside (i.e., street facing) and inland, outer-facing (i.e., toward Bethany Curve Park) panels of the culvert headwalls. The mural would thus not be located on the ocean-facing side of the headwalls to avoid potential impacts to the natural blufftop environment. More broadly, the art mural project is intended to enhance and beautify a public space that is frequently impacted by graffiti, and the art selection process underwent robust community engagement to determine the design and fabrication of the mosaic.[58] While the outside (i.e., ocean-facing side) of the culvert is intended to blend with the natural environment along West Cliff Drive, the inside functions more as a bridge-like structure with solid barriers that do not allow for views through them. Overall, the mural reflects a welcome addition to what would otherwise be a solid concrete façade (and the mural was designed to incorporate natural colors to soften the concrete coloring) and is allowable under the LCP which calls for artistic enhancements along West Cliff Drive (see LCP Land Use Policy 1.7.6).

As conditioned, the proposed project will not significantly impact the public viewshed as seen from the ocean, the beach, and West Cliff Drive, and would in fact lead to some improvements across the area. Accordingly, as conditioned, the Commission finds the project consistent with the above-cited Coastal Act and LCP public viewshed policies.

I. Cultural Resources

Applicable Coastal Act Provisions

In cases where development will adversely impact archaeological or paleontological resources, Coastal Act Section 30244 requires reasonable mitigation measures to protect identified archaeological or paleontological resources. Specifically, it states:

> ***Section 30244.*** *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Analysis

As stated above, where archaeological or paleontological resources exist, Coastal Act Section 30244 requires reasonable mitigation measures. The Commission's Tribal Consultation Policy (adopted on August 3, 2018) also recognizes the importance of improving communication and coordination with Tribes, and it sets out a tribal consultation process that is fully consistent with, and complementary to the nature of, Coastal Act Section 30244.

With regard to project activities that could impact tribal or archeological resources, the portion of the project within Lighthouse Field State Beach are subject to ground disturbance activities; however, the City evaluated the area for its potential to house historic resources but determined that there were no previously recorded cultural resources in the project area and in particular no recorded significant historical events or archeological/cultural discoveries. However, there is the potential for the presence of undiscovered Native American archeological resources to be unearthed through

[58] The mosaic was designed by local artist Venecia Prudencio and fabricated over the course of five months by the public (i.e., anyone could stop by where the mosaic was located and help place the tiles in their correct locations).

ground-disturbance construction activities. The result of inadvertent discovery of Native American archaeological resources could be identified as a tribal cultural resource at the time of discovery or at a later date.

In order to ensure potential tribal and cultural resources are avoided, the City has stated they would implement standard construction mitigation measures for the project, including alerting construction crews of the potential to encounter sensitive archeological material and implementing protocols should such sensitive materials be discovered. With these measures, the City's Initial Study/Mitigated Negative Declaration for the portion of the project at 800 West Cliff Drive identified that the project would not result in a substantial adverse change in the significance of a tribal cultural resource. Given the findings of less-than-significant impacts to tribal and cultural resources, no mitigation is proposed at this time; however, **Special Condition 12** provides processes and procedures in the event that tribal, cultural, or archeological resources are found during project construction.

As such, with the required conditions and proposed mitigation measures, the proposed project can be found consistent with the tribal and cultural resource protection requirements of the Coastal Act.

J. Violation

As discussed above, a portion of the existing shoreline armoring (mainly riprap) within the proposed project area is not permitted and is proposed to be authorized after-the-fact as a part of this CDP application. Specifically, certain portions of the riprap fronting West Cliff Drive that was initially placed via emergency CDPs did not ultimately receive the requisite follow-up CDP authorization.[59]

The City of Santa Cruz seeks to address the violations through this application, including by removing about 1,900 cubic yards of riprap (which was removed during the construction of the infill walls in 2023 and 2024) and permitting the remaining armoring after-the-fact. In addition, to mitigate for the impacts of both the unpermitted and proposed armoring (from 1998 through the initial 20-year mitigation period, for a total of 48 years), the City has proposed a package of public access amenities. This includes two public stairway improvement projects; installation of new benches and relocation of an existing bench at 800 West Cliff Drive; installation of a doggy mitt station at Its Beach and another at Mitchell's Cove; seeking funding for installation of a drinking fountain/water bottle refill station; removal of non-native plants and planting of native landscaping along the blufftop and bluff face**;** and an agreement with State Parks to explore modifying and expanding the operational hours of five parking lots located near Lighthouse Point (see **Special Condition 1)**. Approval of this application pursuant to the staff recommendation, issuance of the CDP, and the Applicant's subsequent performance of the work authorized by the CDP in compliance with all terms and conditions of the CDP will result in resolution of the above-described violations going forward.

[59] See ECDPs 3-93-016-G, 3-03-004-G, and G-3-14-0019.

Although development has taken place prior to submission of this permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this CDP does not constitute a waiver of any legal action with regard to the alleged violations, nor does it constitute an implied statement of the Commission's position regarding the legality of development, other than the development addressed herein or as otherwise expressed herein, undertaken on the subject site without a coastal permit. In fact, approval of this CDP is possible only because of the conditions included herein and failure to comply with these conditions would also constitute a violation of this CDP and of the Coastal Act. Accordingly, the Applicants remain subject to enforcement action just as they were prior to this permit approval for engaging in unpermitted development and unless/until the conditions of approval included in this CDP are satisfied.

K. Other

Other Agency Approvals

The project may require authorization from several other entities, including but not limited to California State Parks, U.S. Army Corps of Engineers, Central Coast Regional Water Quality Control Board, State Lands Commission, and the Monterey Bay National Marine Sanctuary. To ensure that the Applicant is able to carry out the proposed project consistent with the terms and conditions of this CDP, and to ensure that the proposed project is authorized by all applicable agencies, **Special Condition 14** requires the Applicant to submit written evidence of authorization from these other agencies of the project (as conditioned and approved by this CDP) or evidence that such authorizations are not required.

Minor Changes

Although a great deal of thought and planning has gone into the proposed project, including as it is affected by the CDP terms and conditions, oftentimes minor unforeseen issues present themselves in complicated projects of this nature, and it is important that the CDP is nimble enough to account for potential minor changes. Thus, additional and/or modified development that is determined by the Executive Director to: 1) fall within the overall scope and intent of this CDP; 2) be consistent with the City of Santa Cruz LCP and the Coastal Act; and 3) not have any significant adverse impacts to coastal resources, may be allowed subject to Executive Director approval. In addition, minor adjustments to special condition requirements that do not require a CDP amendment or a new CDP (as determined by the Executive Director) may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources. See **Special Condition 15**.

Indemnification

Coastal Act Section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications.[60] Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its action on the pending CDP application in the event that the Commission's

[60] See also California Code of Regulations Title 14 Section 13055(g).

action is challenged by a party other than the Applicant. Therefore, consistent with Section 30620(c), the Commission imposes a condition requiring reimbursement for any costs and attorneys' fees that the Commission incurs in connection with the defense of any action brought by a party other than the Applicant challenging the approval or issuance of this CDP (**Special Condition 16**).

L. California Environmental Quality Act (CEQA)

CEQA Section 21080.5(d)(2)(a) prohibits a proposed development from being approved if there are feasible alternatives and/or feasible mitigation measures available that would substantially lessen any significant adverse effect that the development may have on the environment. The City of Santa Cruz, acting as the CEQA lead agency, determined that the proposed project was categorically exempt from CEQA review under CEQA Section 21080(b)(4) (applicable to projects necessary to prevent or mitigate an emergency) and CEQA Guideline Section 15269(a) and 15269(b) (applicable to replacement of public facilities as the result of a declared emergency). In addition, for the portion of the project at 800 West Cliff Drive, the City prepared an initial study/mitigated negative declaration (IS/MND) in July 2026, where that IS/MND concluded that the project would not have significant adverse environmental effects provided the recommended mitigation measures, including, for example, pre-construction nesting bird surveys during nesting season (February 1 to August 31), roosting bat surveys prior to tree trimming or tree removal activities, and monarch butterfly surveys for any tree or vegetation removal during monarch overwintering season (October through March) are implemented.

The Commission's review, analysis, and decision-making process for CDPs and CDP amendments has been certified by the Secretary of the Natural Resources Agency as being the functional equivalent of the environmental review required by CEQA (CCR Section 15251(c)). Accordingly, in fulfilling that review, this report has analyzed the relevant coastal resource issues with the proposal and has identified appropriate and necessary modifications to address adverse impacts to such coastal resources. All above findings are incorporated herein in their entirety by reference.

Accordingly, the Commission finds that only as modified and conditioned herein will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA. As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects that approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. If so modified and conditioned, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

4. APPENDICES

A. Appendix A – Substantive File Documents[61]

- CDP File 3-26-0524

B. Appendix B – Staff Contact with Agencies and Groups

- City of Santa Cruz
- California State Lands Commission
- National Marine Fisheries Service
- Monterey Bay National Marine Sanctuary
- Regional Water Quality Control Board
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Surfrider Foundation
- Sierra Club
- Save the Waves Coalition
- Caltrans

[61] These documents are available for review in the Commission's Central Coast District office.