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F7c/F7d

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Appeal 49th day (waived)	5/28/2007
Application filed:	10/31/2007
Application 180th day:	4/28/2008
CDPs approved:	12/13/2008
Staff:	D.Carl
Staff report prepared:	3/20/2008
Hearing date:	4/11/2008

Revised Findings
for
Appeal A-3-SCO-07-015 & CDP Application 3-07-019
(Pleasure Point/East Cliff Drive Parkway and Seawall)

Appeal number..... A-3-SCO-07-015 (Pleasure Point/East Cliff Drive Parkway)

Application number..... 3-07-019 (Pleasure Point/East Cliff Drive Seawall)

Applicant..... Santa Cruz County (Redevelopment Agency and Public Works Department)

Appellants..... Commissioners Mike Reilly and Sara Wan; Charles Paulden

Project location ..... East Cliff Drive between 32nd and 41st Avenues, and the bluff and beach area fronting East Cliff Drive between 32nd and 36th Avenues and at the terminus of 41st Avenue (at the "Hook"), in the Pleasure Point portion of the Live Oak beach area of Santa Cruz County.

Project description..... Reconstruct East Cliff Drive between 32nd and 41st Avenues (including drainage, water quality, park, trail and related public recreational improvements) and construct full bluff seawalls at two locations just seaward of East Cliff Drive (one between 32nd and 36th Avenues and another at 41st Avenue at the Hook), including removal of an abandoned restroom, removal of rip-rap and rubble on the beach, and the construction of three beach and surf access stairways (one new stairway and two replacement stairways).

File documents..... California Coastal Commission Consistency Determination Number CD-021-03 (Army Corps of Engineers); Santa Cruz County certified Local Coastal Program (LCP); California Coastal Commission Monterey Bay ReCAP.

Commissioners on prevailing side: Achadjian, Blank, Burke, Kruer, Lowenthal, Neely, and Potter.

Staff Note

On December 13, 2007, the Commission approved, with conditions, two coastal development permits (CDPs) for the project described above. At that time, the Commission added one condition related to surf monitoring, and modified a second condition related to the time frame for overall project monitoring (changing the time frame from 10 years to 5 years). The findings and conditions that follow

have been revised to reflect the Commission's December 13, 2007 action. Deletions to the previous report text are shown in ~~strike-through~~ text format, and additions are shown in <u>underlined</u> text format.[1]

Staff notes that perhaps the most contentious of the changes made by the Commission at the December hearing involved the surf monitoring condition that was added at that time. In that respect, Staff has coordinated closely with the County on that condition and, as of the date of this staff report, the County and staff are in agreement on its parameters (see surf monitoring condition on page 21). The resultant surf monitoring should provide useful information for understanding changes in the Pleasure Point surf environment over time in relation to the seawalls, and should also prove useful more generally in terms of expanding on the knowledge base associated with wave and surfing research in California overall. Such monitoring should, in both respects, help the Commission, the County, and other coastal resource managers to better account for and protect the Pleasure Point surfing area as well as other important surfing resources statewide.

Staff Recommendation on Revised Findings

Staff recommends that the Commission adopt the following revised findings in support of its approval with conditions of coastal development permits for the proposed development on December 13, 2007.

Motion. I move that the Commission adopt the revised findings in support of the Commission's action on December 13, 2007 approving with conditions the development proposed under appeal number A-3-SCO-07-015 and CDP application number 3-07-019 pursuant to the staff recommendation.

Staff Recommendation of Adoption. Staff recommends a **YES** vote. Passage of this motion will result in adoption of the following resolution, revised findings and conditions as set forth in this report. The motion requires a majority vote of the members from the prevailing side present at the December 13, 2007 hearing, with at least three of the prevailing members voting. Commissioners eligible to vote on the revised findings are Commissioners Achadjian, Blank, Burke, Kruer, Lowenthal, Neely, and Potter. If the motion fails, the revised findings are postponed to a later meeting.

Resolution. The Commission hereby adopts the findings and conditions set forth below for approval with conditions of coastal development permits for the proposed development on the grounds that the findings support the Commission's decision made on December 13, 2007 and accurately reflect reasons for it.

Summary of ~~Staff Recommendation~~ <u>Commission Action</u>

[1] Changes to section numbering (as a result of removing staff recommendation sections regarding substantial issue and the CDP applications) are <u>not</u> shown in cross-through and underline for better clarity. In addition, heading text that was underlined in the original report remains underlined – it does not represent additional text being added.

~~Staff believes~~ The Commission finds that the project, if conditioned as recommended to avoid coastal resource impacts and to mitigate for those that are unavoidable, is consistent with the LCP and the Coastal Act, and will result in significant public recreational access enhancement in an important public access area. ~~Staff recommends that the Commission find substantial issue with the appeal, and approve coastal permits for the project. Motions and resolutions to do this are found on staff report pages 10 (for finding substantial issue) and 10-11 (for approval of the project).~~

Proposed Project

East Cliff Drive is the major coastal thoroughfare through the Live Oak beach area of Santa Cruz County, and is a de facto major segment of the California Coastal Trail. This roadway winds through the Live Oak beach area from the Santa Cruz Harbor through to Opal Cliffs, providing shoreline and ocean vistas where it is not impeded by residential and other development. Although it is not developed with significant recreational trail amenities (lacking even sidewalks in most locations), East Cliff Drive remains a very popular route for motorists, bicyclists, pedestrians and others who want to enjoy the shoreline area. One of the most popular sections of East Cliff Drive in this respect is located between 32nd and 41st Avenues in Pleasure Point where East Cliff is directly adjacent to the bluff edge, with a dedicated pedestrian/bicyclist area on the seaward side, providing mostly unimpeded ocean views, including of the world class Pleasure Point surfing area located directly offshore. Benches and tables further add to this area's function as a gathering place of sorts for coastal visitors and the Pleasure Point community. This section of East Cliff is also, however, deteriorated and portions of the road have even fallen over the bluff.

Santa Cruz County proposes to reconstruct East Cliff Drive between 32nd and 41st Avenues, including constructing a minimum 16-foot recreational trail on the seaward side of the road, as well as installing benches, landscaping, upgraded drainage and water quality facilities, and related public recreational improvements. This project has been referred to as the East Cliff Drive Parkway project. As part of this parkway project, and in response to the ongoing threat of coastal erosion, the County also proposes to construct full bluff sculpted concrete seawalls in two locations along the reconstructed East Cliff Drive (between 32nd and 36th Avenues and at the end of 41st Avenue). The seawalls are meant to protect East Cliff Drive (including preservation of the vehicular travel lane as well as the pedestrian/bicyclist recreational trail area) and the public utilities embedded below it. This seawall portion of the project has also been referred to as the Pleasure Point Seawall project. The seawall construction would also include removal of an abandoned restroom, removal of significant rip-rap and rubble on the beach, and the construction of three beach and surf access stairways (one new stairway and two replacement stairways).

Appeal and CDP Jurisdiction

The parkway portion of the project is located in the County's coastal permitting jurisdiction, and the seawall portion of the project is located in the Commission's jurisdiction. The County's approval of the parkway project was appealed to the Commission, and the County applied to the Commission for the seawalls themselves. This ~~staff~~ report has been combined because the parkway and seawall projects are part of one coherent project, and implementation of each depends on the other.

Appeal Raises a Substantial Issue

In terms of the appeal, ~~staff believes~~ the Commission finds that the parkway project raises a substantial issue with respect to LCP conformance and Coastal Act (access and recreation policies) conformance. Part of this is due to its functional relation to the seawall project (and the potential for it to prejudice consideration of the seawalls), and partly this is because the parkway project includes development inconsistent with LCP policies designed to minimize hazards, including through required setbacks, and LCP and Coastal Act (as applicable) policies that protect public access areas for public access (including public parking), public views and community character, and water quality, including the offshore marine sanctuary and surfing area. ~~**Staff recommends that the Commission find that a substantial issue exists with respect to the appealed project's conformance with the certified Santa Cruz County LCP and the Coastal Act's access and recreation policies and take jurisdiction over the coastal development permit for the project. Motions and resolutions to find substantial issue are found on page 10 of the staff report.**~~

Proposed Armoring Is Necessary

There are clearly significant blufftop recreational resources atop the bluff in the East Cliff Drive right-of-way, and ~~staff believes~~ the Commission finds that the seawalls are necessary to protect existing structures in danger from erosion (East Cliff Drive and related pedestrian/bicyclist trail and utilities) and that other alternatives are not capable of adequately protecting such structures. There is inadequate space within which to move endangered structures inland to avoid the need for armoring, or even to delay the need for armoring in any sort of meaningful way. The dense residential neighborhood of Pleasure Point is directly inland of the road at this location, and even were East Cliff Drive to be abandoned and allowed to naturally erode into the ocean, eventually (and in the relatively short term), assuming current California law regarding existing structures, and lacking a substantial social and financial commitment to planned retreat, armoring would be installed to protect the row of houses directly inland of East Cliff Drive. This would not be uncommon in coastal Live Oak, a relatively urbanized area where most of the shoreline is armored (including surrounding the project area). To the extent that space still existed in the right-of-way seaward of these houses at that point in time, there would still be some through recreational access, but its value would be diminished because the amount of space would be significantly less. The larger the right-of-way, the more space available to accommodate public recreational enhancements such as trails, overlooks, benches, picnic areas, restrooms, et cetera. The amount of space, and the stability of it over the long-term, is also directly related to the amount of improvements that may be pursued for it. ~~Staff believes~~ The Commission finds that it is clear that armoring is necessary to protect the important public structures present in East Cliff Drive.

Armoring Impacts

Just as clearly, and as with all armoring that "fixes" the bluff location on an eroding shoreline where sea level continues to rise, it is expected that the proposed seawalls would eventually result in the loss of the beach, and potentially impacts to the offshore surfing area. Sea level rose approximately one foot over the past one hundred years in the Monterey Bay area, and some experts estimate that it could rise up to three feet in the next one hundred years. At those rates, or at higher rate (that could result from global

climate change), the beach area would disappear relatively quickly (as it is not very large to begin with). The impact to the surfing area would not appear to be significant in the short or relatively long (i.e., 100 years) run. This is because the main surf area is about 500 feet offshore, and the quality of waves at this location is due to a variety of factors that hold constant the location of the bluffs, and depend more on undersea "tripping" features that cause incoming waves to break. The seawalls will simulate the natural bluffs and should not significantly adversely affect these wave generating/developing parameters any more than natural bluffs. Eventually, sea levels will rise such that tripping features are so deep that waves will no longer break as they do now, but that is not due to the walls. Wave tripping areas will move inland, and eventually the walls will impact such waves in that respect, but it is not known when (past 100 years) that would occur, and the difference between the effect of armoring protecting East Cliff Drive versus armoring protecting homes inland of East Cliff Drive, which would be located about 30 feet inland of the current proposed armoring) on surfing would be negligible.

Blufftop versus Beach/Surfing Trade-off

In summary, if existing structures currently in danger are abandoned or relocated, and the bluff is left to erode naturally, East Cliff Drive (and the recreational opportunities inherent to it) will be diminished and will be expected to eventually disappear, but natural processes will be allowed to continue and the area that erodes will become beach at the toe of the eroding bluff in the short term. In the longer term, sea level rise will engulf the beach and, barring significant changes that result in programmatic managed retreat in California, armoring (roughly 30 feet or so inland of where the seawalls are proposed) will eventually define the shoreline here. At that point, the impacts associated with the proposed project will occur in relation to that armoring. In other words, allowing East Cliff Drive to erode allows for up to 30 years or so based on the long-term average rate of erosion at this location (or less than 30 years if episodic erosion events take larger sections of bluff before then, where the 30 feet could be lost in just a few large storm events) where natural beach and surf processes continue at the cost of East Cliff Drive and its recreational value itself. On the other hand, if the bluff is armored as proposed, then East Cliff Drive is protected, but the natural processes that would have eroded East Cliff Drive are not. In other words, the beach will disappear quicker, and the hardened bluff edge will interact with the surf area quicker than would have been the case naturally. Given the value of the East Cliff Drive corridor for public recreational access, ~~staff believes~~ the Commission finds that it is clear that protecting it now makes better Coastal Act sense. The no action alternative would allow the loss of East Cliff Drive to ensure that natural process can continue, resulting in landward movement of the bluff face by 30 feet or so, establishment of new beach area that would itself erode or would then be lost to sea level rise, and impacts due to expected armoring at that time would be the same as proposed now.

Public Recreation Access Enhancement

~~Staff~~ The Commission further finds ~~believes~~ that the project as a whole includes significant public recreational enhancements as part of the parkway improvements that can offset potential seawall impacts. The project includes significant enhancement of the East Cliff Drive right-of-way for public recreational use. In addition, one new beach/surfing access stairway would be built, and two existing stairways would be upgraded. These improvements represent a significant commitment of public funds, and they depend on the stability of the East Cliff Drive right-of-way to be implemented. The seawalls

themselves will be modeled after the bluffs in the area, and should blend into the backbeach aesthetic in that respect. The existing seawalls constructed in this area by Santa Cruz County are some of the best examples of such camouflaged seawalls as have been seen in the Central Coast area, and are indicative of what is expected with the current project.

Conditions Necessary

That said, although ~~staff~~ the Commission supports the project concept as a whole, certain portions of the project have not been designed in such a way as to best minimize potential coastal resource impacts, and to most effectively mitigate for unavoidable impacts. As such, the project as proposed is inconsistent with the LCP and the Coastal Act. Accordingly, ~~staff recommends~~ the Commission has applied a series of conditions, including conditions to limit the amount of rip-rap that would remain in the project area, to maximize the use of the public right-of-way for public purposes, to maximize the utility of the path system, to require water quality filtration/treatment, to reduce visual clutter (undergrounding utilities, camouflaging drainage, limiting signs, etc.), to eliminate non-native and invasive species, to provide design continuity (in railings, landscaping, etc.), and overall to ensure the blufftop recreational access component of the project maximizes public recreational use and enjoyment value (including visual/character) as a means to offset some of the impacts due to the seawalls. As conditioned, the project can be found consistent with the LCP and the Coastal Act. **As conditioned, ~~staff recommends that~~ the Commission approves coastal development permits for the overall project. ~~Motions and resolutions to approve the project are found on pages 10-11 of the staff report.~~**

Conclusion

Pleasure Point and the Live Oak beach area as a whole are important recreational assets for Live Oak residents, other County residents, and visitors to the area. The site includes a portion of the largest marine sanctuary in the nation, and a surfing resource of State and worldwide significance. This project area is clearly a very special place, with valuable and irreplaceable resource value. The approved project will serve to protect and improve an important and very popular component of East Cliff Drive and the California Coastal Trail for public recreational access in a manner that should blend into the community aesthetic as part of the defining element that it is. The beach area at the toe of the bluffs will be enhanced by the removal of significant rock and concrete debris, and impacts to offshore surfing areas should not be significant. All things considered, ~~staff believes~~ the Commission finds that the project, as conditioned, is consistent with the LCP and the Coastal Act and that it is the most appropriate public policy and planning outcome for this stretch of coast.

Report Contents

Click on the links at left to go to the exhibits.

1. Procedural Note

The portion of the project located atop the bluff is located in Santa Cruz County's coastal development permit (CDP) jurisdiction, and the portion of the project at the toe of the bluff is located in the Coastal Commission's CDP jurisdiction. Specifically, the proposed improvements to East Cliff Drive and

related areas atop the bluffs are subject to the Santa Cruz County CDP process, and the proposed seawalls are subject to the Commission's CDP process. In other words, although the project is one whole project that has been developed and considered by the County in that manner, it is artificially separated by jurisdiction. As a result, the East Cliff Drive improvements are subject to the certified Santa Cruz County LCP and the Coastal Act's access and recreation policies (because the entire blufftop portion of the project is part of the first public road paralleling the sea), and the seawall improvements are subject to the Coastal Act with the certified LCP as guidance. As a result, the project before the Commission includes two regulatory processes, but only one project.[2]

The County's CDP action for the portion of the project in their jurisdiction was appealed to the Commission (Appeal Number A-3-SCO-07-015), and the County submitted a CDP application to the Commission for the seawall portion of the project (CDP Application Number 3-07-019). Because the project is one whole project with issues that are obviously intertwined, this report and the hearing on this project are also combined. So although this report is organized with separate appeal and CDP findings as necessary, it should be understood that the separation is a legal one related to CDP jurisdiction, and not a reflection of two separate projects.

2. Project History

The Pleasure Point parkway and seawall project presents complicated coastal resource, planning, public policy issues, and has been the subject of tremendous interest and controversy for many years. The Commission has been tracking the project during that time, and Commission staff have provided comments on it through letters, meetings with the County and the Army Corps of Engineers (ACOE, the previous project proponent), and participation at community forums since the late 1990s.

Most recently in 2003, ACOE submitted a federal consistency determination to the Commission for the majority part of the seawall portion of the project.[3] At a November 7, 2003 Commission hearing, the Commission objected to ACOE's consistency determination, effectively denying the majority of the seawall portion of the project. At that time, the Commission determined that the proposed seawall project was not consistent with the enforceable policies of the California Coastal Management Program (CCMP). The Commission determined that the Corps had not provided adequate information, had not fully explored all feasible less environmentally damaging feasible alternatives, and had not fully addressed applicable coastal resource issues (including because their submittal lacked analysis of impacts to and protection of offshore surfing resources and shoreline sand supply, and lacked supporting documentation regarding whether shoreline-altering armoring was necessary). In other words, the Commission's objection was primarily based on a lack of information, where the Commission was unwilling to make a decision on a seawall project of this magnitude without adequate information to be

[2] Although the Coastal Act was amended in 2007 to allow processing of such split jurisdiction projects by the Commission under the Coastal Act alone, that processing option was not pursued in this case.

[3] At that time, ACOE was proposing consistency for the seawall section extending between 32nd to 36th Avenues, and not for the Hook component at the terminus of 41st Avenue.

able to fully understand the project site in relation to the proposed project and potential alternatives.

In the time since the 2003 objection, two important project-related things have occurred. The first was in 2004 when the County issued itself an emergency CDP to replace failing cribwalls with concrete sculpted seawalls along the upper portion of the project area bluffs (and within the County's CDP jurisdiction) fronting East Cliff Drive at three locations where East Cliff was undermined. The emergency walls have since been constructed, and provide a representative example of the type of finished seawall product that the County envisions for the overall project (see the area in the foreground of the picture on page 4 of Exhibit A).[4] The Commission took a field trip to the site in March 2007 to view the project area, including the completed emergency walls.

The second important thing is that the County took over the project from ACOE (and ACOE bowed out of the project) and the County redoubled its efforts to develop the types of information and analysis deemed lacking by the Commission in 2003. The County has met regularly since that time with Commission staff to help identify specific information and project analyses relevant for LCP and Coastal Act review. The County's efforts have included significant baseline surfing related data collection with and through USGS (see Exhibit F), and culminated with a revised EIR/EIS that included supplementary threat evaluation and alternatives information being certified in early 2007. The County ultimately approved the project in March 2007 (see appeal information below), and submitted a CDP application to the Commission that was filed in October 2007.

3. Appeal of Santa Cruz County Decision

A. Santa Cruz County Action

On March 20, 2007, the Santa Cruz County Board of Supervisors approved a CDP for the parkway portion of the project subject to multiple conditions (see Exhibit C for the County's adopted staff report, findings and conditions on the project).[5] Notice of the Board of Supervisors' action on the CDP was received in the Coastal Commission's Central Coast District Office on March 26, 2007. The Coastal Commission's ten-working day appeal period for this action began on March 27, 2007 and concluded at 5pm on April 9, 2007. Two valid appeals (see below) were received during the appeal period.

B. Appeal Procedures

Coastal Act Section 30603 provides for the appeal to the Coastal Commission of certain CDP decisions in jurisdictions with certified LCPs. The following categories of local project decisions are appealable:

[4] The CDP application to the Commission represents the required follow-up regular CDP process for the emergency walls. In other words, even though the emergency walls cover only a small subset of the bluffs in the project area, the overall seawall project accounts for these seawalls because the emergency walls become an integral part of the overall seawall project as proposed.

[5] Because the proposed seawalls are located within the Coastal Commission's retained CDP jurisdiction, the County's approval at that time of the seawalls and all components pertaining thereto was with respect to the required local discretionary (but non-CDP) approval for purposes of the seawall CDP application to the Coastal Commission.

(a) approval of CDPs for development that is located (1) between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance, (2) on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff, and (3) in a sensitive coastal resource area; or (b) for counties, approval of CDPs for development that is not designated as the principal permitted use under the LCP. In addition, any local action (approval or denial) on a CDP for a major public works project or energy facility is appealable to the Commission. This project is appealable because it is a major public works project, and it is located both seaward of the first public road (and includes the first public road) and it is located within 300 feet of the blufftop edge otherwise.

The grounds for appeal under Section 30603 are limited to allegations that the development does not conform to the certified LCP or to the public access policies of the Coastal Act. Section 30625(b) of the Coastal Act requires the Commission to conduct a de novo CDP hearing on an appealed project unless a majority of the Commission finds that "no substantial issue" is raised by such allegations. Under Section 30604(b), if the Commission conducts a de novo hearing and ultimately approves a CDP for a project, the Commission must find that the proposed development is in conformity with the certified LCP. If a CDP is approved for a project that is located between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone, Section 30604(c) also requires an additional specific finding that the development is in conformity with the public access and recreation policies of Chapter 3 of the Coastal Act. This project is located between the nearest public road and the sea, and thus this additional finding would need to be made if the Commission approves the project following a de novo hearing.

The only persons qualified to testify before the Commission on the substantial issue question are the Applicant, persons who made their views known before the local government (or their representatives), and the local government. Testimony from other persons regarding substantial issue must be submitted in writing. Any person may testify during the de novo stage of an appeal.

C. Summary of Appeal Contentions

Appeal of Commissioners Reilly and Wan

The two Commissioners contend that the County-approved project raises substantial issues with respect to the project's conformance with core LCP policies, and with Coastal Act access and recreation polices, concluding as follows:

> *In sum, the County's CDP approval raises substantial issues with respect to the approved County CDP project's conformance with LCP and Coastal Act provisions, including those related to long-term stability, access, recreation, public views, community character, and water quality. These issues are also inextricably linked to similar and other coastal resource issues associated with the seawall component of the overall project that is located in the Commission's retained CDP jurisdiction; their resolution will effect the Coastal Commission's review of the*

seawall application;[6] *and they are better evaluated in conjunction with the Commission's review of the CDP application for the seawall. These issues warrant a further analysis and review by the Coastal Commission of the County's CDP approval.*

Please see Exhibit D for the complete appeal document.

Appeal of Charles Paulden

Charles Paulden's appeal contains a series of questions and assertions related to the project and the overall project area. Mr. Paulden's appeal does not include explicit LCP (or Coastal Act) contentions, but it does reflect many of the same substantive issue areas raised in the Commissioner appeal. Please see Exhibit D for Mr. Paulden's complete appeal document.

~~4. Staff Recommendation on Substantial Issue~~

~~Staff recommends that the Commission determine that a **substantial issue** exists with respect to the grounds on which the appeal was filed. A finding of substantial issue would bring the County jurisdiction portion of the project under the jurisdiction of the Commission for hearing and action.~~

~~**Motion.** I move that the Commission determine that Appeal Number A-3-SCO-07-015 raises no substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act.~~

~~**Staff Recommendation of Substantial Issue.** Staff recommends a **NO** vote. Failure of this motion will result in a de novo hearing on the application, and adoption of the following resolution and findings. Passage of this motion will result in a finding of No Substantial Issue and the local action will become final and effective. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.~~

~~**Resolution to Find Substantial Issue.** The Commission hereby finds that Appeal Number A-3-SCO-07-015 presents a substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency with the certified Local Coastal Program and/or the public access and recreation policies of the Coastal Act.~~

~~5. Staff Recommendation on CDP Applications~~

[6] Including the degree to which the County's approved CDP for East Cliff Drive and related development could prejudice the Commission's review of the proposed seawalls. In other words, to the degree it is conclusively shown that there are existing structures in danger from erosion, one of the fundamental questions when the seawalls are ultimately before the Commission will be understanding the range of potential alternatives to address such an erosion problem. Many of these alternatives include different visions for East Cliff Drive than that approved by the County's CDP (including abandonment, relocation of threatened elements inland, aggressive landscaping and drainage controls, etc.). A CDP for East Cliff Drive as approved by the County would represent a development entitlement to a certain project that could skew the Commission's review of the seawall, and could preclude certain alternatives from consideration.

~~Staff recommends that the Commission, after public hearing, **approve** coastal development permits for the proposed development subject to the standard and special conditions below. Because the one project is made up of two CDP applications before the Commission (i.e., the appeal over which the Commission takes jurisdiction, and the CDP application directly to the Commission), two motions and two votes are required to implement this recommendation. The conditions apply to the overall project, and thus to both CDPs.~~

~~Approval of CDP A-3-SCO-07-015~~
~~Staff recommends that the Commission **approve** CDP A-3-SCO-07-015 subject to the standard and special conditions below.~~

> ~~**Motion.** I move that the Commission approve Coastal Development Permit Number A-3-SCO-07-015 pursuant to the staff recommendation.~~
>
> ~~**Staff Recommendation of Approval.** Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.~~
>
> ~~**Resolution to Approve a Coastal Development Permit.** The Commission hereby approves the coastal development permit on the ground that the development as conditioned, will be in conformity with the policies of the Santa Cruz County Local Coastal Program and the public access and recreation policies of the Coastal Act. Approval of the coastal development 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 amended development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the amended development on the environment.~~

~~Approval of CDP 3-07-019~~
~~Staff recommends that the Commission **approve** CDP 3-07-019 subject to the standard and special conditions below.~~

> ~~**Motion.** I move that the Commission approve Coastal Development Permit Number 3-07-019 pursuant to the staff recommendation.~~
>
> ~~**Staff Recommendation of Approval.** Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.~~
>
> ~~**Resolution to Approve a Coastal Development Permit.** The Commission hereby approves the coastal development permit on the ground that the development as conditioned, will be in~~

~~conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development 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 amended development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the amended development on the environment.~~

4. Conditions of Approval

A. 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.

B. Special Conditions

1. **Revised Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMITS, the Permittee shall submit two sets of Revised Plans to the Executive Director for review and approval. The Revised Plans shall be substantially in conformance with the plans approved by Santa Cruz County (Santa Cruz County Application Number 00-00797) and the plans submitted to the Coastal Commission (Coastal Commission Application Number 3-07-019) but shall show the following changes and clarifications to the project:

   (a) Rip-Rap at the Hook. All rip-rap at the Hook shall be removed.

   (b) Transition from the project seawall to the O'Neill revetment. The transition from the

seawall to the O'Neill revetment shall minimize the amount of rip-rap used to the maximum degree feasible while still maintaining the effectiveness of permitted armoring on the O'Neill (fee-title) property. All rip-rap shall be removed from County (fee-title) property unless it is proven necessary for transition, and all other rip-rap shall be limited as much as possible with the goal being to remove as much rip-rap from the project area as possible.

(c) All other rip-rap. Other than the rip-rap allowed at the O'Neill transition (see above), all other rock, rip-rap, concrete rubble, or equivalent in the project area shall be removed.

(d) Hook stairway. The stairway at the Hook shall be a concrete stairway that is seamlessly integrated into the seawall in a similar manner as is proposed for the stairway at Pleasure Point Park and near 36th Avenue.

(e) Concrete surfacing. All seawall (including footing and scour apron) and stairway surfaces (other than stair treads) shall be faced with a sculpted concrete surface that mimics natural undulating bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation. Any protruding concrete elements (e.g., corners, edges, etc.), including all stairways, shall be contoured in a non-linear manner designed to evoke natural bluff undulations. Surfaces shall be of similar or better visual quality in this respect to the best examples provided by the emergency walls in the project area (e.g., near Pleasure Point Park).

(f) Existing seawall at restroom. The upper bluff seawall constructed at the location of the restroom/stairway that is to be replaced with the project shall be modified to include additional surfacing and articulation, including by providing less steep gradient (and extending its base), to more effectively camouflage this section of the seawall.

(g) Drainage. All drainage and related elements within the sculpted concrete and any related energy dissipation measures shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the on top of the bluffs and the beach.

(h) Goat trails/high relief areas. All seawalls shall incorporate areas of high relief/goat trails at appropriate locations for emergency egress for surfers.

(i) Inland side of East Cliff Drive right-of-way. All public right-of-way along the inland side of East Cliff Drive shall be used for public improvements, with the roadway itself pushed to the maximum degree feasible inland to maximize the area available on the seaward side of the travel lane for recreational trail and related improvements. In locations where the road can't be moved inland to the full right-of-way extent for good cause (like a required turning radius, etc.), then the right-of-way shall still be put to public use (e.g., coordinated landscaping along the inland road edge, parking, etc.), except for areas, if any, where no demonstrable public benefit would be gained from redevelopment of the public right-of-way. A curb or equivalent shall be included on the inland side of the East Cliff Drive travel lane and/or parking areas where such curb shall strictly limit curb cuts and access driveways as much as possible, including by only

allowing such access for sites where access cannot be gained in another way (i.e., most of the homes along this stretch of Eats Cliff gain access from the Avenues), including through minor modifications to allow access to be gained from the Avenues.

(j) Replace curb. The rolled (or "battered") curb along the seaward side of East Cliff Drive shall be replaced with a standard curb.

(k) Crosswalks. All project area crosswalks shall be raised crosswalks that can also act to slow vehicular speeds.

(l) Striping plan. Project area striping shall be limited to the degree feasible while still providing clear direction and accounting for public safety. A bike lane shall be provided on the seaward side of the East Cliff Drive travel lane. The transition from project area paths at both ends shall be clearly demarcated on the pavement in some way (different pavement markings, striping, coloring, etc.) and shall run more or less in the same general direction as the paths as much as possible (i.e., angled to the road as opposed to a perpendicular crossing).

(m) Sign plan. Signs shall be limited to the degree feasible, including though consolidation of signs, while still providing clear direction and accounting for public safety. All sign siting, design, and text shall be provided. All signs shall be designed to blend into the parkway viewshed as much as possible. Stop signs shall be provided that require traffic to stop at each transition crossing area at upcoast and downcoast end of the project area.

(n) Remove portion of fence at Pleasure Point Park. The portion of the solid fence along the southern side of Pleasure Point Park that is located nearest the bluff (from the corner of the house seaward) shall be replaced with a visually unobtrusive fence that does not obstruct the coastal view and the recreational value of the park area.

(o) Remove portion of fence at the Hook. The portion of the chain link and barbed wire fence at the downcoast edge of the Hook overlook area and nearest the bluff (from the corner of the house seaward) shall be replaced with a visually unobtrusive fence along the right-of-way line (further to the east) that does not obstruct the coastal view and degrade the recreational value of the park area, including through adjusting landscaping and Hook area overlook amenities to best utilize this public space.

(p) Fence fronting O'Neill residence. The split rail fence along the recreational trail fronting the O'Neill residence shall be configured in such a manner as to maximize space for recreational trail improvements while avoiding existing cypress trees. Any private fences in this area shall be removed.

(q) Fence fronting residence between 38th Avenue and Larch Lane. The chain link fence fronting the residence between 38th Avenue and Larch Lane shall be replaced with a visually unobtrusive fence along the right-of-way line (further towards the ocean) that does not obstruct the coastal view.

(r) Fence fronting residence immediately upcoast of the Hook. The fence fronting the residence immediately upcoast of the Hook overlook area shall be replaced with a visually unobtrusive fence located on the seaward side of the tree line (further towards the ocean) that does not obstruct the coastal view.

(s) Railings. All project area railings: shall be minimized to the degree feasible (including using landscape areas to avoid the need for railings where feasible); shall be made of wood to match the natural aesthetic as much as possible (e.g., low split rail to match existing split rail in the project area); and shall utilize the same design theme throughout the project area (e.g., low and high split rail versions for different purposes). Railings below the blufftop within the stairway can be metal, provided such metal design and materials blend as much as possible into the seawall/stairway camouflaging (including limiting rail segments, mottled or flat-black paint, etc.).

(t) Wood required. All benches, tables, and related structures in the recreational use area shall be made of wood that matches other wood elements in the project area (such as necessary railings) to the degree feasible and where it provides greater visual continuity within the project area.

(u) Decomposed granite pathway. All decomposed granite pathways shall be traditional decomposed granite paths, and not paving. All sections of the decomposed granite pathway shall be a minimum of 8 feet wide and continuous throughout the project area as much as possible.

(v) Path separation. Separation between the decomposed granite and paved paths shall be provided wherever feasible, and this area shall be landscaped.

(w) Larch Lane sidewalk integration. The existing sidewalk at the existing County seawall near Larch Lane shall be seamlessly integrated with the decomposed granite path.

(x) Parking limitations. All parking spaces in the project area shall be available for free at all times with the exception that parking may be prohibited from 2am to 4am in the five spaces downcoast of the O'Neill residence and the three spaces opposite Pleasure Point Park.

(y) Landscaping. All landscaping in the project area shall be non-invasive native species, where bluff species capable of trailing vegetation that can screen the top of the seawalls as seen from the beach and Monterey Bay (e.g., Carmel creeper, *Ceanothus griseus* var. *horizontalis*) shall be included to provide as much screening as possible. The retaining wall near 38th Avenue shall be completely screened from view through landscaping. All invasive and non-native species in the project area, including palm trees and iceplant, shall be removed. The plans shall include certification from a licensed landscape professional experienced with native species indicating that all plant species to be used are native and non-invasive. A permanent irrigation system shall be included. All plants shall be replaced as necessary to maintain the approved vegetation over the life of the project.

(z) Overhead lines and lighting. If feasible, all utility poles along East Cliff Drive shall be

removed and all overhead utility lines relocated underground. Only decorative pole lighting shall be installed in its place, where such decorative lighting shall be limited to that that is necessary for public safety purposes, and any related lamp poles and lights shall be sited and designed to blend into the project aesthetic, including being sited on the inland side of the right-of-way.

(aa) Drainage. All project area drainage shall be filtered and treated (by CDS units equipped with media that can treat expected pollutants, or equivalent) prior to discharge from project area outfalls. All outfalls not located within the seawalls shall be completely screened from public view by vegetation.

All requirements of this condition above shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Revised Plans. Any proposed changes to the approved Revised Plans shall be reported to the Executive Director. No changes to the approved Revised Plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

2. **Encroachment removal plan.** WITHIN ONE YEAR OF COMPLETION OF CONSTRUCTION OF THE APPROVED PROJECT, the Permittee shall submit two copies of a encroachment removal plan for the residential encroachments in the public right-of-way on the seaward side of East Cliff Drive between 38th Avenue and Larch Lane (Site A), and directly upcoast of the Hook overlook area (Site B). The plan shall provide for the County returning these encroachment areas to public use and enjoyment within two years of completion of construction of the approved project or: (a) for Site A, the encroachment impact being offset commensurately (e.g., by renting the right-of-way space to the property owner where the rent goes to public access and viewshed enhancement projects in the immediate vicinity, etc.) within two years of completion of construction of the approved project; and (b) for Site B, returning the encroachment areas to public use and enjoyment within three years of completion of construction of the approved project through a residential remodel project provided there is clear evidence that the property owner will complete such residential remodel project by that time.

3. **Hook Parking Lot.** Parking fees shall be prohibited at the public parking lot at the Hook.

4. **LOPP.** Any annexation of the East Cliff Drive project area into the Live Oak Permit parking Program shall be prohibited.

5. **Acquire Private Property.** All private property between the East Cliff Drive right-of-way and the ocean shall be acquired by the County prior to the commencement of construction.

6. **Construction Plan.** PRIOR TO COMMENCEMENT OF CONSTRUCTION the Permittee shall submit two sets of a Construction Plan to the Executive Director for review and 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, all storage areas, all construction access corridors (to the construction site and staging areas), and all public pedestrian access corridors. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on the beach, East Cliff Drive, and all beach access points, and to have the least impact on public access.

(b) Construction Methods and Timing. The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separated from public recreational use areas (including using unobtrusive fencing (or equivalent measures) to delineate construction areas), and all methods to be used to contain concrete during spray and equivalent operations on the seawalls. All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.

(c) Property Owner Consent. The Construction Plan shall be submitted with evidence indicating that the owners of any properties on which construction activities are to take place, including properties to be crossed in accessing the site, consent to such use of their properties.

(d) Construction Requirements. The Construction Plan shall include the following construction requirements specified by written notes on the Construction Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

- All work shall take place during daylight hours and lighting of the beach area is prohibited.
- Construction work or equipment operations shall not be conducted below the mean high water line unless tidal waters have receded from the authorized work areas.
- Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all such vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.
- All construction materials and equipment placed on the beach 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 the beach area by the time work ceases on each day of construction and in no case later than by sunset each day that work occurs. The only exceptions shall be for 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 revetment as possible, and are minimized in their extent and for sand and rock materials which are being relocated.
- Construction (including but not limited to construction activities, and materials and/or

equipment storage) is prohibited outside of the defined construction, staging, and storage areas.

- No work shall occur during weekends and/or the summer peak months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances (such as tidal issues or other environmental concerns), the Executive Director authorizes such work.

- Equipment washing, refueling, and/or servicing shall not take place on the beach and such activities shall take place only on designated non-spill areas specified on the Construction Plan.

- The construction site shall maintain good construction site 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 beach; etc.).

- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from entering into the Pacific Ocean.

- All beach areas and all beach access points impacted by construction activities shall be restored 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 Applicant shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Construction Plan. Any proposed changes to the Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission amendment to this permit unless the Executive Director determines that no amendment is necessary.

7. **Construction Site Documents & Construction Coordinator.** DURING ALL CONSTRUCTION:

(a) Construction Site Documents. Copies of the signed coastal development permit and the approved Construction Plan shall be maintained in a conspicuous location at the construction job site at all times, and such copies shall be available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the coastal

development permit and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.

(b) Construction Coordinator. A construction coordinator shall be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, 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 name, phone number, 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.

8. MBNMS and SLC Review. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Applicant shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the approved project have been granted by the Monterey Bay National Marine Sanctuary and the California State Lands Commission. Any changes to the approved project required by the Sanctuary or the State Lands Commission shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

9. Monitoring and Reporting. The Permittee shall ensure that the condition and performance of the approved seawalls are regularly monitored by a licensed civil engineer with experience in coastal structures and processes. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact future performance, and identify any structural damage requiring repair to maintain the seawalls in their approved state. Monitoring reports prepared by a licensed civil engineer with experience in coastal structures and processes, and covering the above-described evaluations, shall be submitted to the Executive Director for review and approval at ~~ten~~ five year intervals by May 1st of each ~~tenth~~ fifth year (with the first report due May 1, ~~2018~~ 2013, and subsequent reports due May 1, ~~2028~~ 2018, May 1, ~~2038~~ 2023, and so on) for as long as the approved seawalls exist at this location. The reports shall identify the existing configuration and condition of the seawalls, drainage system, and required landscape screening, recommend actions necessary to maintain these project elements in their approved and/or required state, and shall include photographs taken from representative vantage points with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan. At a minimum, the site shall be photographed from a sufficient number of viewpoints as to provide complete photographic coverage of the approved project and all related development at a scale that allows comparisons to be made with the naked eye between photographs taken in different years from the same vantage points.

10. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to extreme coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, and coastal flooding; (ii) to assume the risks to the Applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

11. **Santa Cruz County Conditions.** All conditions of approval imposed on the project by Santa Cruz County (Santa Cruz County Application Number 00-0797; see exhibit C) are incorporated herein directly by reference. Any County conditions requiring materials to be submitted to the County and/or otherwise requiring County approval (such as Planning Director approval), shall also require the same materials to be submitted to, and/or the same approvals granted by, the Executive Director under the same review and approval criteria as specified in the County conditions. For future condition compliance tracking purposes, such County conditions shall be considered subsections of this condition 11. To the extent any such County conditions conflict with these conditions, such conflicts shall be resolved in favor of these conditions.

12. **Surf Monitoring.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit, for Executive Director review and approval, a plan for monitoring the wave breaking patterns of the Pleasure Point surfing area offshore of the approved seawalls ("Plan"). The Plan shall, at a minimum, provide for the following:

    (a) Purpose and Design. The primary purpose of the Plan shall be to determine if there are significant changes to Pleasure Point surfing area wave breaking patterns that may be related to the approved seawalls (once they have been constructed). The Plan shall be designed to integrate and build upon the USGS baseline surf data collection effort (see pages 8 through 40 of Exhibit F), and shall be designed to both document changes in wave breaking patterns over time and to evaluate the potential causes of such changes.

    (b) Dataset Collection. Wave breaking patterns in front of the approved armoring shall be monitored through collection of video imagery of a similar nature as that collected by USGS for a given set of wave breaking patterns generally observed in the area: local northwest wind waves (summer/ fall), southern swell (late summer/fall), and north Pacific winter swell. The video imagery shall be collected at mid-tide to provide a known vertical reference and in such a way as to capture a complete range of wave break characteristics that can then be averaged to evaluate the spatial extent and locations for the given wave conditions, and to allow comparison to the

baseline USGS data. Wave observations shall include wave height, period and wave break character for any of the identified set of wave conditions. The video imaging shall be conducted over the course of one year following completion of the construction of the approved seawalls (i.e., about five years since the original USGS dataset), and shall be replicated again five years after that to result in three similar datasets spaced five years apart (i.e., the USGS dataset, the one-year post construction dataset, and the six-year post construction dataset).

(c) Evaluation and Reporting. A report based on the three datasets that documents changes in wave conditions over time and that evaluates the potential causes of such changes shall be submitted for Executive Director review and approval within seven years following completion of the construction of the approved seawalls. The report shall include recommendations for adapting monitoring plan parameters and requirements (including data collection, evaluation, and reporting parameters) over the long term (i.e., for as long as the approved seawalls are in place) where the intent in the long term is to provide for a less intensive level of monitoring (i.e., monitoring that is non data collection intensive, and that is focused on limited visual and photographic assessment at regular intervals) unless the report indicates that there are significant changes to the surf conditions directly attributable to the seawalls that require more intensive monitoring similar to the initial video imagery analysis. In all cases, continued surf monitoring shall be as much as possible coordinated with the every five-year structural monitoring associated with the seawalls themselves (see Special Condition 9).

Findings and Declarations

The Commission finds and declares as follows:

5. Project Location

The proposed project is located along East Cliff Drive between 32nd and 41st Avenues overall, with the proposed seawalls located along the bluff and beach area fronting East Cliff Drive between 32nd and 36th Avenues and at the terminus of 41st Avenue (at the “Hook”), in the Pleasure Point portion of the Live Oak beach area of Santa Cruz County.

Santa Cruz County Regional Setting

Santa Cruz County is located on California's central coast and is bordered to the north and south by San Mateo and Monterey Counties (see Exhibit A). The County's shoreline includes the northern half of the Monterey Bay and the rugged north coast extending to San Mateo County along the Pacific Ocean. The County's coastal zone resources are varied and oftentimes spectacular, including the Santa Cruz Mountains coastal range and its vast forests and streams; an eclectic collection of shoreline environments ranging from craggy outcrops to vast sandy beaches (in both urban and more rural locations); numerous coastal wetland, lagoon and slough systems; habitats for an amazing variety and number of endangered species; water and shore oriented recreational and commercial pursuits, including world class skimboarding, bodysurfing, and surfing areas; internationally renowned marine research facilities and programs; special coastal communities; vast State Park lands; and the Monterey Bay itself. The unique grandeur of the region and its national significance was formally recognized in 1992 when the area offshore of the County became part of the Monterey Bay National Marine Sanctuary (MBNMS), the largest of the twelve such federally protected marine sanctuaries in the nation.

Santa Cruz County's rugged mountain and coastal setting, its generally mild climate, and its well-honed cultural identity combine to make the area a desirable place to both live and visit. As a result, the County has seen extensive development and regional growth over the years that the CCMP has been in place. In fact, Santa Cruz County's population has more than doubled since 1970 alone with current State estimates indicating that the County is home to over one-quarter of a million persons.[7] This level of growth not only increases the regional need for housing, jobs, roads, urban services, infrastructure, and community services, but also the need for park areas, recreational facilities, and visitor serving amenities. For coastal counties such as Santa Cruz where the vast majority of residents live within a half-hour of the coast, and most significantly closer than that, coastal zone resources are a critical element in helping to meet these needs. Furthermore, with coastal parks and beaches themselves attracting visitors into the region, an even greater pressure is felt at coastal recreational systems and destinations like Pleasure Point. With the Santa Cruz County shoreline and beaches providing arguably the warmest and most accessible ocean waters in all of Northern California, and with the large population centers of the San Francisco Bay area, San Jose, and the Silicon Valley nearby, this type of resource pressure is particularly evident in coastal Santa Cruz County.

Live Oak is part of a larger area including the Cities of Santa Cruz and Capitola that is home to some of the best recreational beaches in the Monterey Bay area. Not only are north Monterey Bay weather patterns more conducive to beach recreation than the rest of the Monterey Bay area, but north bay beaches are generally the first beaches accessed by visitors coming from the north of Santa Cruz. With Highway 17 providing the primary access point from the north (including from the San Francisco Bay Area, San Jose and the Silicon Valley) into the Monterey Bay area, Santa Cruz, Live Oak, and Capitola are the first coastal areas that visitors encounter upon traversing the Santa Cruz Mountains (see Exhibit A). As such, the Live Oak beach area (including Pleasure Point) is an important coastal access asset for

[7] Census data from 1970 shows Santa Cruz County with 123,790 persons; California Department of Finance estimates for 2007 indicate that over 264,125 persons reside in Santa Cruz County (*California Department of Finance, January 2007 Cities/Counties Ranked by Size, Numeric, and Percent Change*; Sacramento, California; May 2006).

not only Santa Cruz County, but also the entire central and northern California region.

Live Oak Beach Area

Live Oak is the name for the unincorporated segment of Santa Cruz County located between the City of Santa Cruz (upcoast) and the City of Capitola (downcoast) (see page 2 of Exhibit A). The Live Oak coastal area is well known for excellent public access opportunities for beach area residents, other Live Oak residents, other Santa Cruz County residents, and visitors to the area. Walking, biking, skating, viewing, skimboarding, bodysurfing, surfing, fishing, sunbathing, and more are all among the range of recreational activities possible along the Live Oak shoreline. In addition, Live Oak also provides a number of different coastal environments including sandy beaches, rocky tidal areas, blufftop terraces, and coastal lagoons. Live Oak includes a number of defined neighborhood and special communities within it, including the larger Pleasure Point area within the heart of which the proposed project would be constructed. These varied coastal characteristics make the Live Oak shoreline unique in that a relatively small area provides different recreational users a diverse range of alternatives for enjoying the coast. By not being limited to one large, long beach, or solely an extended stretch of rocky shoreline, the Live Oak shoreline accommodates recreational users in a manner that is typical of a much larger access system.

Primarily residential with some concentrated commercial and industrial areas, Live Oak is a substantially urbanized area with few major undeveloped parcels remaining. Development pressure has been disproportionately intense for this section of Santa Cruz County. Because Live Oak is projected to absorb the majority of the unincorporated growth in Santa Cruz County, development pressure will likely continue to tax Live Oak's public infrastructure (e.g., streets, parks, beaches, etc.).[8] Given that the beaches are the largest public facility in Live Oak, this pressure will be particularly evident in the beach area.

Pleasure Point

Pleasure Point is the name of the predominantly residential area located roughly between upcoast Moran Lake and downcoast 41st Avenue (at the "Hook" where it transitions to the Opal Cliffs area). Pleasure Point is also the name of the offshore surfing area between Soquel Point (aka "Pleasure Point") and the Hook (see Exhibit A).[9] This area has an informal, beach community aesthetic and ambiance that clearly distinguishes it from inland commercial areas as well as the downcoast Opal Cliffs neighborhood towards Capitola. Housing stock is eclectic, and densely crowded together. Though certainly in the midst of a gentrification that has intensified over the last decade or so, the Pleasure Point area retains its informal charm and appeal, much of it rooted in the intrinsic relationship between the built environment, its inhabitants, and the surfing area offshore.

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[8] The LCP identifies Live Oak at buildout with a population of approximately 29,850 persons; based on the County's recreational formulas, this corresponds to a park acreage of 150-180 acres. Though Live Oak accounts for less than 1% of Santa Cruz County's total acreage, this projected park acreage represents nearly 20% of the County's total projected park acreage.

[9] There are a number of individually named breaks within the overall Pleasure Point surf area (such as Sewer Peak, First peak, Second Peak, 38th Avenue, etc.), but the overall surf area is known as Pleasure Point.

Pleasure Point is an extremely popular recreational surfing destination that is well known around the world. It is not uncommon to see more than 100 surfers in the water, even more when prime surfing conditions are present, and to see small groups of people lining East Cliff Drive both enjoying the shoreline view and watching the surfing below.

East Cliff Drive Project Area

East Cliff Drive is the major coastal thoroughfare through the Live Oak beach area of Santa Cruz County, and is a major segment of the California Coastal Trail. This roadway winds through the Live Oak beach area from the Santa Cruz Harbor through to Opal Cliffs, providing shoreline and ocean vistas where it is not impeded by residential and other development. The project area is located at one of only four locations in the Live Oak beach area where coastal vistas from East Cliff Drive (the first through public road) are available.[10] This is due to the pattern of development in Live Oak where substantial residential development has occurred seaward of East Cliff Drive that mostly blocks any available coastal vistas from the road. This is in contrast to some other nearby urban areas where the first through public road is located immediately adjacent to the ocean, and residential development is confined inland of it (for example, West Cliff Drive in the City of Santa Cruz). Although it is not developed with significant recreational trail amenities (lacking even sidewalks in most locations), East Cliff Drive is an important recreational and other access facility that is used by a significant number of people (i.e., drivers, joggers, bicyclists, walkers, etc.) on an everyday basis. Given the finite amount of such open coastal vista available in the Live Oak beach area, and the significant use of East Cliff Drive by the public, the contribution of the project area stretch of East Cliff in this regard is magnified.

One of the most popular sections of East Cliff Drive in this respect is the proposed project area between 32nd and 41st Avenues in Pleasure Point. At this location, East Cliff is directly adjacent to the bluff edge, with a dedicated pedestrian/bicyclist area on the seaward side, providing mostly unimpeded ocean views,[11] including of the world class Pleasure Point surfing area located directly offshore. Benches and tables further add to this area's function as a gathering place of sorts for coastal visitors and the Pleasure Point community. This section of East Cliff is also, however, deteriorated and portions of the road have even fallen over the bluff, narrowing the area available for public use. See East Cliff Drive photos on pages 4, 5, and 6 of Exhibit A.

In sum, the East Cliff Drive project area is an extremely popular recreational use area for immediate Pleasure Point residents as well as visitors from other parts of Live Oak, other parts of the County, and from further away. East Cliff Drive is a component of the California Coastal Trail, and a component of the Monterey Bay Sanctuary Scenic Trail, and is used by a significant number of people (i.e., joggers, bicyclists, walkers, etc.). East Cliff Drive was changed to one-way vehicular access in 1995 (in response to erosion of portions of it) with the area nearest the bluffs marked out as a multi-use recreational trail by a series of plastic bollards. The East Cliff Drive corridor from 32nd through 41st Avenues provides an amazing coastal vista, and many persons also enjoy this view by parking in the limited number of

[10] The others are located where East Cliff Drive fronts Schwann Lake, Corcoran Lagoon, and Moran Lake upcoast.

[11] There are three intervening residential structures seaward of East Cliff Drive interspersed along this stretch, each blocking through views and access in different ways.

parking bays and/or by simply driving through and taking in the view.

Seawall Project Areas

The bluffs in the project area range are approximately 30 to 35 feet tall, with the lower 10 feet or so made up of Purisima Formation sandstone and the upper portion consisting of marine terrace deposits. The seawall would extend along approximately 1,100 feet of the bluffs from roughly 32nd Avenue through to 36th Avenue, and along approximately 300 feet of the bluffs at the end of 41st Avenue at the Hook (see page 3 of Exhibit A, and see Exhibit B).

The larger seawall area starts at the County's Pleasure Point Park (at the corner of East Cliff Drive and 32nd Avenues) and extends through to a pile of rip-rap boulders fronting an existing residential structure (the O'Neill residence) clinging to the bluffs seaward of East Cliff near the terminus of 36th Avenue. This bluff area includes three upper bluff seawall areas,[12] an abandoned restroom and an existing stairway at the foot of 35th Avenue,[13] and several wooden protective barriers at the blufftop edge (where portions of the road have been lost). This bluff area is fronted by approximately 3,100 to 4,700 cubic yards of concrete rubble and rip-rap that is strewn along the beach throughout this portion of the project area, more so at the 35th Avenue stairway.[14] There is also an informal "stairway" of sorts consisting of a series of retaining walls nearest to 32nd Avenue that is a primary entrance point for surfers. The bluff is irregular, showing evidence of significant rilling and uneven erosion, including significant undercuts in places at the base of the Purisima, with a slope ranging generally from 45 to 60 degrees.

The smaller seawall area would extend from an upcoast gunnite wall (fronting one of the three seaward of East Cliff Drive residences) through to the edge of the County's property at the Hook overlook. This bluff area includes an existing wooden stairway[15] and is fronted by an approximately 900 to 1,300 cubic yards of rip-rap.[16] The bluffs at 41st Avenue are more vertical than the section from 32nd to 36th, and range from about 50 to 65 degrees.

See Exhibit A for location maps and project area photos.

6. Project Description

Parkway

Santa Cruz County proposes to reconstruct East Cliff Drive between 32nd and 41st Avenues. This

[12] Constructed pursuant to Santa Cruz County Emergency CDP 04-0307.

[13] Funded by the State Coastal Conservancy.

[14] Other than roughly 350 cubic yards of rip-rap authorized by the Commission to protect the existing stairway at 35th Avenue (CDP XS-82-38 in 1982), the Commission has been unable to establish a CDP history for these materials. The County indicates that some of the rubble was placed as early as 1965 (RFEIR page 21-7), but has not otherwise identified specific amounts of rock or rubble that might pre-date CDP requirements, and has not identified any CDPs authorizing any such development.

[15] Funded by the State Coastal Conservancy.

[16] As estimated based on the bluff length at the Hook in relation to the overall total of 4,000 to 6,000 cubic yards of rip-rap and rubble throughout the project area.

project has been referred to as the East Cliff Drive parkway project. The project would result in a reconfigured one-way (heading downcoast towards Capitola), 16-foot wide (travel lane) East Cliff Drive within the right-of-way, and a new recreational trail that is at least 16 feet wide on the seaward side of East Cliff connected to up and downcoast recreational trail components (8 feet of paved trail for bicyclists and other wheeled movement, and 8 feet of decomposed granite trail for pedestrians). New landscaping, benches, picnic tables, trash and recycling, bike racks, interpretive displays, and related public access amenities would be installed throughout the project area. The proposed project also includes construction of a new restroom and park facilities at Pleasure Point Park (located at the corner of East Cliff Drive and 32nd Avenue), formalization of 27 parking spaces, and consolidation of outfalls (13 existing outfalls going down to 7 outfalls) and new water quality filtration/treatment units at most the outfalls (for 5 out of the 7 outfalls). See Exhibit B for parkway project plans.[17]

Seawalls

The County proposes to remove the existing restroom and coastal access stairway near 35th Avenue, and to construct two concrete seawalls: one covering all of the bluff area between Pleasure Point Park and the O'Neill residence at the foot of 36th Avenue, a linear distance of roughly 1,100 feet; and a second covering the bluff area at the end of 41st Avenue at the Hook, a linear distance of roughly 300 feet. The existing three emergency walls would be concealed behind/in the seawall. Existing concrete rubble would be removed, with some of it incorporated into seacave fills and concealed behind the seawall, and the remainder disposed of off site. Some existing rip-rap would be relocated within the project area to provide a transition between the proposed seawall and neighboring armoring at 36th Avenue (at the O'Neill residence), and the rip-rap at the Hook would be retained; the remainder of the rip-rap would be removed from the project area.

The seawall would be keyed into the underlying Purisima Formation to -3 NGVD, and would extend to the top of the bluff (to approximately +34 NGVD). A four-foot wide (extending seaward) concrete scour apron would be incorporated into the keyway. The plan for the proposed seawall includes a series of horizontal steel tieback rods (i.e., "soil nails"[18]) that would be drilled approximately 20 feet into the bluffs at 4-6 foot (both horizontal and vertical) spacing. The steel rods would be fastened at the bluff face with wire mesh onto which concrete would sprayed, about 2 feet thick, and sculpted and colored to approximate a natural bluff landform (see photos of existing walls at the site constructed in this manner in Exhibit A). Two concrete stairways incorporated into the seawall would be constructed; a new stairway near Pleasure Point Park (replacing the series of retaining walls acting as a surf access now) and a replacement stairway (for the one removed) near 36th Avenue. The existing wood stairway at 41st Avenue would be replaced in kind. Some additional blufftop space would be created by backfilling

[17] In the time since the Board of Supervisors originally acted on the parkway CDP, the Board also endorsed a project permutation related specifically to parking that would adjust the parking configuration within the project area slightly (see June 26, 2007 Board action on page 40 of Exhibit C). The Applicant has asked that the Commission consider the revised parking configuration per the Board's June 2007 action.

[18] Soil nails are structural, high-strength rebars, grouted into drilled holes and inclined slightly downward into the soil. The soil nails stabilize a bluff by improving the continuity of the overall mass and providing anchorage into the more stable soil zone behind the active mass.

behind the seawall structure in limited areas. See project plans in Exhibit B.

Construction would require heavy equipment be lowered to the beach by a crane to excavate the seawall keyways and footings and to move concrete and rip-rap in the project area. Excavated materials would be removed offsite. The project would be constructed on State Lands and would require a State Lands lease, and would result in some fill of the Sanctuary, thereby requiring Sanctuary approval as well.

7. Substantial Issue Determination

The appeal is of the County's action on the parkway component of the project only (see previous procedural note). The appeal contentions generally fall into four main issues areas: hazards, public access and recreation, scenic resources/community character, and water quality.

A. Hazards

The LCP requires that development be sited and designed to ensure long-term stability, including by requiring a minimum 25-foot setback from coastal bluff edges as adjusted inland as necessary to achieve at least 100 years of development stability, and to avoid the need for shoreline armoring with its attendant impacts (including LUP Chapter 6 and Zoning Code Chapter 16.10). For example, applicable LCP policies include:

> *LUP Policy 6.2.10 (Site Development to Minimize Hazards): Require all developments to be sited and designed to avoid or minimize hazards…*
>
> *LUP Policy 6.2.12 (Setbacks from Coastal Bluffs): All development activities, including those which are cantilevered, and non habitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff. A setback greater than 25 feet may be required based on conditions on and adjoining the site. The setback shall be sufficient to provide a stable building site over the 100-year lifetime of the structure, as determined through geologic and/or soil engineering reports. The determination of the minimum 100-year setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed shoreline or coastal bluff protection measures.*
>
> *LCP Section 16.10.070(e)(1) (Slope Stability): …All development activities shall be located away from potentially unstable areas…*
>
> *LCP Section 16.10.070(h)(1)(i) (Coastal Bluffs and Beaches; Criteria in Areas Subject to Coastal Bluff Erosion): …for all development and for non-habitable structures, demonstration of the stability of the site, in its current, pre-development application condition, for a minimum of 100 years…*
>
> *LCP Section 16.10.070(h)(1)(ii) (Coastal Bluffs and Beaches; Criteria in Areas Subject to Coastal Bluff Erosion): …for all development, including that which is cantilevered, and for non-*

habitable structures, a minimum setback shall be established at least 25 feet from the top edge of the coastal bluff, or alternatively, the distance necessary to provide a stable building site over a 100-year lifetime of the structure, whichever is greater.

LCP Section 16.10.070(h)(1)(iii) (Coastal Bluffs and Beaches; Criteria in Areas Subject to Coastal Bluff Erosion): …the determination of the minimum setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed protection measures, such as shoreline protection structures, retaining walls, or deep piers.

The approved parkway project would result in development located with a zero setback from the bluff edge, and in some cases less than a zero setback,[19] and would result in development that is acknowledged by the County to require a seawall to maintain its stability. As such, the approved parkway project is inconsistent with the LCP's stability and hazard avoidance provisions.[20]

B. Public Access and Recreation

The LCP and the Coastal Act require that public access and recreation opportunities be maximized, and that shoreline land appropriate for coastal access and recreation uses and facilities be protected for that purpose (including LUP Chapters 2, 3 and 7, LCP Zoning Code Chapter 13.20, and Coastal Act Sections 30210-30223). For example, applicable LCP and Coastal Act policies include:

LCP Land Use (LUP Chapter 2) policies identifying public recreational use as a higher priority than private residential use in the public street right-of-way, including.

LUP Objective 2.22 Coastal Dependent Development. To ensure priority for coastal-dependent and coastal-related development over other development on the coast.

LUP Policy 2.22.1 Priority of Uses within the Coastal Zone. Maintain a hierarchy of land use priorities within the Coastal Zone:

First Priority: Agriculture and coastal-dependent industry

Second Priority: Recreation, including public parks; visitor serving commercial uses; and coastal recreation facilities.

Third Priority: Private residential, general industrial, and general commercial uses.

LUP Policy 2.22.2 Maintaining Priority Uses. Prohibit the conversion of any existing priority use to another use, except for another use of equal or higher priority.

LCP Circulation (LUP Chapter 3) policies encouraging a coordinated recreational circulation system for access to beach recreational areas and giving priority to road improvements that provide access to

[19] The less than zero foot setback areas refer to those areas where the County CDP project would use fill supported by the aforementioned seawalls to extend the bluff seaward.

[20] Note that the appropriateness of a seawall in relation to existing structures must be evaluated and decided before any improvements could rely on any such seawall for stability. See CDP determination finings that follow.

coastal recreational resources, including:

LUP Policy 3.8.7 Recreation. Plan bicycle routes to facilitate access to recreational areas such as regional parks, beach areas, and major tourist commercial/recreational facilities. Promote recreational bicycle routes to promote "eco tourism".

LUP Policy 3.14.1 Capacity. Reserve capacity on the existing County road system for recreational traffic.

LUP Policy 3.14.2 Priority to Recreational Improvements. In the development of transportation improvement programs, consider giving priority to road improvements which provide access to recreational resources.

LCP Parks, Recreation, and Public Facilities (LUP Chapter 7) policies and programs generally protect existing public access and encourage public access and recreational enhancements such as public parking, trails, and other facilities to increase enjoyment of coastal resources and to improve access within the Live Oak coastal region, including:

LUP Objective 7.1a Parks and Recreation Opportunities. To provide a full range of public and private opportunities for the access to, and enjoyment of, park, recreation, and scenic areas, including the use of active recreation areas and passive natural open spaces by all ages, income groups and people with disabilities with the primary emphasis on needed recreation facilities and programs for the citizens of Santa Cruz County.

LUP Objective 7.7a Coastal Recreation. To maximize public use and enjoyment of coastal recreation resources for all people, including those with disabilities, while protecting those resources from the adverse impacts of overuse.

LUP Objective 7.7b Shoreline Access. To provide a system of shoreline access to the coast with adequate improvements to serve the general public and the coastal neighborhoods which is consistent with the California Coastal Act, meets public safety needs, protects natural resource areas from overuse, protects public rights and the rights of private property owners, minimizes conflicts with adjacent land uses, and does not adversely affect agriculture, subject to policy 7.6.2.

LUP Program 7.7a (Improve Parking). Improve existing parking areas through the use of fencing, striping, landscaping, bike racks, and safety improvements; provide safe stairways for beach access as part of the program to upgrade vehicular parking. (Responsibility: Public Works, Board of Supervisors)

LUP Program 7.7b (Increase Live Oak Parking). Increase parking opportunities to serve visitors to the Live Oak coastline in locations where such facilities are feasible and compatible with the neighborhood and the natural setting. Provide on- and off-street parking improvements and facilities within walking distance of the beaches and bluffs, or located at more remote locations and linked by shuttle transportation. Identify appropriate locations and improvements in

cooperation with the local community. (Board of Supervisors, Planning Department, County Parks, Public Works)

LUP Program 7.7f (Establish Access Signing). Establish an access signing program which: (1) Removes incorrect, misleading, and confusing signs. (2) Develops, installs, and maintains standard signs for primary destinations and neighborhood accessways and designates appropriate locations for these signs. (Responsibility: County Parks, Public Works)

LUP Policy 7.6.3 Utilization of Existing Easements. Seek to utilize existing publicly owned lands where possible to implement the trail system, subject to policy 7.6.2.

LUP Policy 7.6.8 Trail Funding and Construction. When utilizing roadside betterment funds in the development of bicycle, pedestrian and equestrian trails, construct such trails off the pavement within the public right-of-way and separated from traffic by an appropriate distance. Include trail design and construction in all public road development projects on designated trail routes, subject to policy 7.6.2.

LUP Policy 7.7.1 Coastal Vistas. Encourage pedestrian enjoyment of ocean areas and beaches by the development of vista points and overlooks with benches and railings, and facilities for pedestrian access to the beaches…

LUP Policy 7.7.4 Maintaining Recreation Oriented Uses. Protect the coastal blufftop areas and beaches from intrusion by nonrecreational structures and incompatible uses to the extent legally possible without impairing the constitutional rights of the property owner, subject to policy 7.6.2.

LUP Policy 7.7.10 Protecting Existing Beach Access. Protect existing pedestrian…and bicycle access to all beaches to which the public has a right of access, whether acquired by grant or through use, as established through judicial determination of prescriptive rights…. Protect such beach access through permit conditions…

Coastal Act Sections 30210 through 30214 and 30220 through 30224 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(a): Public access from the nearest public roadway to the shoreline and along the

coast shall be provided in new development projects…

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 30223: Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Coastal Act Section 30240(b) also protects public recreational access in relation to parks and recreation areas such as East Cliff Drive and the area seaward of it. Section 30240(b) states:

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.

The approved parkway project is clearly a blufftop public access and recreational enhancement. However, the project does not make full use of the public right-of-way for public improvements, and as a result there are areas of public right-of-way that would allow private uses to remain, and that would not be made available for needed public recreational access improvements (e.g., additional public parking, increased trail width, related public amenities, landscaping, etc.). This is inconsistent with the LCP and Coastal Act use priorities protecting these areas for public recreational use and benefit.

In addition, the approved parkway includes unspecified restrictions on public parking that may diminish public access and recreation opportunities, depending on what configuration of parking the Planning Director approves (see, for example, Santa Cruz County condition IV(I) and June 26, 2007 Board action in Exhibit C). At a minimum, the lack of precision in the approval is a problem because the Commission does not know exactly what parking will remain with the completed project. In addition, statewide and visitor concerns might be given less emphasis than potential neighborhood concerns as parking parameters are honed through subsequent County staff review (without subsequent CDPs). Parking is critically important in coastal Live Oak, it is protected by the LCP and the Coastal Act, and it is not adequately protected and improved in the County action.

The approved parkway project is inconsistent with the LCP and the Coastal Act provisions that require public access and recreation opportunities, including public parking, to be protected and maximized.

C. Scenic Resources and Community Character

The LCP is highly protective of coastal zone visual resources and community character, and particularly protective when development is proposed along LCP-designated scenic roads such as East Cliff Drive at this location (including LUP Objectives and Policies 5.10 et seq, LUP Chapter 8, and LCP Zoning Code Chapter 13.20). For example, applicable LCP and Coastal Act policies include:[21]

The County's LCP is fiercely protective of coastal zone visual resources, particularly views from public roads, and especially along the shoreline. The LCP states:

> *Objective 5.10.a Protection of Visual Resources. To identify, protect, and restore the aesthetic values of visual resources.*
>
> *Objective 5.10.b New Development in Visual Resource Areas. To ensure that new development is appropriately designed and constructed to minimal to no adverse impact upon identified visual resources.*
>
> *LUP Policy 5.10.2 Development Within Visual Resource Areas. Recognize that visual resources of Santa Cruz County possess diverse characteristics…. Require projects to be evaluated against the context of their unique environment and regulate structure height, setbacks and design to protect these resources consistent with the objectives and policies of this section.…*
>
> *LUP Policy 5.10.3 Protection of Public Vistas. Protect significant public vistas…from all publicly used roads and vistas points by minimizing disruption of landform and aesthetic character caused by grading operations,… inappropriate landscaping and structure design.*
>
> *LUP Policy 5.10.6 Preserving Ocean Vistas. Where public ocean vistas exist, require that these vistas be retained to the maximum extent possible as a condition of approval for any new development.*
>
> *LUP Policy 5.10.7 Open Beaches and Blufftops. Prohibit the placement of new permanent structures which would be visible from a public beach, except where allowed on existing parcels of record, or for shoreline protection and for public beach access…*
>
> *LUP Policy 5.10.10 Designation of Scenic Roads. The following roads and highways are valued for their vistas. The public vistas from these roads shall be afforded the highest level of protection… East Cliff Drive – from 33rd Avenue to 41st Avenue…*
>
> *LUP Policy 5.10.12 Development Visible from Urban Scenic Roads. In the viewsheds of urban scenic roads, require new discretionary development to improve the visual quality through siting, architectural design, landscaping and appropriate signage.*
>
> *LUP Policy 5.10.18 Signs Visible from Scenic Roads. Actively discourage the placement of signs*

[21] Because a component of recreational access includes visual access, the previously cited LCP and Coastal Act access and recreation policies are also relevant. They are not re-cited here.

which will be visible from scenic roads; where allowed, require strict compliance with the County Sign ordinance to minimize disruption of the natural scenic qualities of the viewshed. Give priority to sign abatement programs for scenic roads.

LUP Policy 5.10.24 Utility Service Lines. … Require underground placement of all other new or supplementary transmission lines within views from scenic roads where it is technically feasible, unless it can be shown that other alternatives are less environmentally damaging or would have unavoidable adverse impacts on agricultural operations. …

LUP Program 5.10.i (Underground Utilities On Scenic Roads). Maintain a countywide overhead wire undergrounding program with the following areas as highest priorities: Town Plan areas, Coastal Special Communities and vistas from scenic roads.

LCP Section 13.20.130(b)(1) Entire Coastal Zone, Visual Compatibility. The following Design Criteria shall apply to projects site anywhere in the coastal zone: All new development shall be sited, designed and landscaped to be visually compatible and integrated with the character of surrounding neighborhoods or areas.

LCP Section 13.20.130(d)(1) Beach Viewsheds, Blufftop Development. The following Design Criteria shall apply to all projects located on blufftops and visible from beaches: Blufftop development and landscaping…in rural areas shall be set back from the bluff edge a sufficient distance to be out of sight from the shoreline, or if infeasible, not visually intrusive.

The LCP also explicitly recognizes the Live Oak beach area as a special area. The LCP states:

Objective 8.8, Villages, Towns and Special Communities. To recognize certain established urban and rural villages as well as Coastal Special Communities for their unique characteristics and/or popularity as visitor destination points; to preserve and enhance these communities through design review ensuring the compatibility of new development with the existing character of these areas.

LUP Policy 8.8.1 Design Guideline for Unique Areas. Develop specific design guidelines and/or standards for well-defined villages, towns and communities…. New development within these areas listed in Figure 8-1…shall conform to the adopted plans for these areas, as plans become available.

Figure 8-1 Areas with Special Design Criteria or Guidelines.…Area: Live Oak Planning Area; Design Guideline Source: Live Oak Community Plan (to be completed)…

The approved parkway project would significantly alter the East Cliff Drive corridor in one of its most critical public viewshed locations. Certain aspects of the project would clearly be viewshed enhancements, but the project include elements that do not adequately protect public views and the established Pleasure Point community character, including because it allows private development in the public right-of-way that blocks public views, and includes other elements that do not adequately protect and enhance public views and the unique character of the Pleasure Point neighborhood (e.g., use of a

variety of railing types that can result in disjointed appearance, use of non-native landscaping inconsistent with the natural bluff aesthetic, significant numbers of signs leading to visual pollution, etc.). As such, the approved parkway project is inconsistent with the LCP (and the Coastal Act as applicable) viewshed and character provisions.

D. Water Quality

The LCP requires that water quality be protected, enhanced, and improved (including LUP Objectives and Policies 5.4 et seq and 5.7 et seq, and LUP Chapter 7). For example, applicable LCP policies include:

LUP Objective 5.4 Monterey Bay and Coastal Water Quality. To improve the water quality of Monterey Bay and other Santa Cruz County coastal waters by supporting and/or requiring the best management practices for the control and treatment of urban run-off and wastewater discharges in order to maintain local, state and national water quality standards, protect County residents from health hazards of water pollution, protect the County's sensitive marine habitats and prevent the degradation of the scenic character of the region.

LUP Objective 5.7 Maintaining Surface Water Quality. To protect and enhance surface water quality in the County's streams, coastal lagoons and marshes by establishing best management practices on adjacent land uses.

LUP Policy 5.4.1 Protecting the Monterey Bay National Marine Sanctuary from Adverse Impacts. Prohibit activities which could adversely impact sensitive habitats of the Monterey Bay National Marine Sanctuary, including the discharge of wastes and hazardous materials. The main sources of concern are wastewater discharge, urban runoff, toxic agricultural drainage water, including that originating outside of Santa Cruz County, and the accidental release of oil or other hazardous material from coastal tanker traffic.

LUP Program 5.4(a). Continue to coordinate with federal, state and other local agencies, including NOAA, California Coastal Commission, Regional Water Quality Control Board, and AMBAG to manage and protect the resources of the Monterey Bay National Marine Sanctuary.

LUP Policy 5.3.1 Support the Monterey Bay Sanctuary. Support the mission of the Monterey Bay National Marine Sanctuary to facilitate the long-term management, protection, understanding and awareness of its resources and qualities.

LUP Policy 5.4.14 Water Pollution from Urban Runoff. Review proposed development projects for their potential to contribute to water pollution via increased storm water runoff. Utilize erosion control measures, on-site detention and other appropriate storm water best management practices to reduce pollution from urban runoff.

LUP Policy 5.7.1 Impacts from New Development on Water Quality. Prohibit new development adjacent to marshes, streams and bodies of water if such development would cause adverse

impacts on water quality which cannot be fully mitigated.

LUP Policy 5.7.4 Control Surface Runoff. New development shall minimize the discharge of pollutants into surface water drainage by providing the following improvements or similar methods which provide equal or greater runoff control: (a) include curbs and gutters on arterials, collectors and locals consistent with urban street designs; and (b) oil, grease and silt traps for parking lots, land divisions or commercial and industrial development.

LUP Policy 7.23.1 New Development. …Require runoff levels to be maintained at predevelopment rates for a minimum design storm as determined by Public Works Design Criteria to reduce downstream flood hazards and analyze potential flood overflow problems. Require on-site retention and percolation of increased runoff from new development in Water Supply Watersheds and Primary Groundwater Recharge Areas, and in other areas as feasible.

LUP Policy 7.23.2 Minimizing Impervious Surfaces. Require new development to limit coverage of lots by parking areas and other impervious surfaces, in order to minimize the amount of post-development surface runoff.

LUP Policy 7.23.5 Control Surface Runoff. Require new development to minimize the discharge of pollutants into surface water drainage by providing the following improvements or similar methods which provide equal or greater runoff control:…(b) construct oil, grease and silt traps from parking lots, land divisions or commercial and industrial development. Condition development project approvals to provide ongoing maintenance of oil, grease and silt traps.

The approved parkway project includes some consolidation of the East Cliff Drive drainage system (13 existing outfalls going down to 7 outfalls) and some additional engineered treatment devices (for 5 out of the 7 outfalls). At a minimum, and given that the receiving water body offshore is part of both a national marine sanctuary and part of a significant offshore recreational use area, all outfalls need to include filtration and treatment to meet the LCP requirements. The approved parkway project leaves two such outfalls unfiltered/treated. In addition, the filtration units approved, CDS units (or equivalent), are better at protecting water quality than standard slit and grease traps or more basic drop inlets, but there appears to be adequate space to supplement and/or replace such units with potentially more effective natural filtration BMPs in some areas (e.g., grassy swales, wet ponds, etc.) and/or with more effective treatment/filtration units and/or by adding treatment capability through media inserts in the CDS units themselves (as has been done in other County road improvement projects) to further protect the receiving water body offshore to the extent required by the LCP. It is clear that the approved parkway project has not done everything feasible and possible for a project of this type and size to protect coastal water quality as required by the LCP. As such, the approved project is inconsistent with the LCP's water quality provisions.

E. Substantial Issue Conclusion

In conclusion, the approved parkway project raises substantial issues with respect to its conformance with applicable LCP and Coastal Act provisions, including those related to hazards, public access and

recreation, public views and community character, and water quality. These issues are also inextricably linked to similar and other coastal resource issues associated with the seawall component of the overall project that is located in the Commission's retained CDP jurisdiction; their resolution will effect the Coastal Commission's review of the related seawall CDP application;[22] and they are better evaluated in conjunction with the Commission's review of the CDP application for the seawall. Therefore, the Commission finds that a substantial issue exists with respect to the approved parkway project's conformance with the certified Santa Cruz County LCP and the Coastal Act's access and recreation policies and takes jurisdiction over the CDP for the parkway portion of the project.

8. Coastal Development Permit Determination

The application before the Commission in this CDP determination is the whole of the proposed project, including both the parkway portion of the project (due to the Commission taking jurisdiction over that CDP application)[23] and the seawall portion of the project (due to the application directly to the Commission). Even with such consolidation, the standard of review for the overall proposed project remains bifurcated. The standard of review for the parkway portion of the project is the LCP and the Coastal Act's access and recreation policies. The standard of review for the seawall portion of the project is the Coastal Act alone, although the LCP can provide non-binding guidance. Given that the LCP emanates from the Coastal Act and provides similar, albeit more specific and detailed in some cases, direction, the bifurcation does not significantly affect the analysis and review that follows.

A. Hazards

1. Applicable Policies

Coastal Act Section 30235 addresses the use of shoreline protective devices such as that proposed:

> ***30235.*** *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and*

[22] Including the degree to which the approved parkway project could prejudice the Commission's review of the proposed seawall applications. In other words, to the degree it is conclusively shown that there are existing structures in danger from erosion, one of the fundamental questions when the seawalls are ultimately before the Commission will be understanding the range of potential alternatives to address such an erosion problem. Many of these alternatives include different visions for East Cliff Drive than the approved parkway project (including abandonment, relocation of threatened elements inland, aggressive landscaping and drainage controls, etc.). A CDP for East Cliff Drive as approved by the County would represent a development entitlement to a certain project that could skew the Commission's review of the seawall, and could preclude certain alternatives from consideration.

[23] The substantial issue findings above are incorporated herein by reference.

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. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Coastal Act Section 30253 addresses the need to ensure long-term structural integrity, minimize future risk, and to avoid landform altering protective measures in the future. Section 30253 provides, in applicable part:

Section 30253. *New development shall:*

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) 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.

Among other things, Coastal Act Section 30233(a) lists the type of development that is allowed to fill open coastal waters (as is proposed here). Section 30233(a) states:

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.

With respect to the parkway components (and as guidance within the Commission's jurisdiction),

applicable LCP hazard policies were previously cited and are not re-cited here (see Substantial Issue Determination).

2. Analysis of Consistency with Applicable Policies

A. Filling Coastal Waters

The proposed seawall requires fill below the mean high tide line (i.e., fill of coastal waters). Section 30233 of the Coastal Act identifies seven allowable uses for the dredging, diking, and filling of coastal waters; seawalls are not one of the listed uses. As a result, a seawall is prohibited in coastal waters by Section 30233(a). However, Section 30235 of the Coastal Act requires the Commission to approve a seawall if it is necessary to protect an existing structure and if it meets the other requirements of that section. Section 30235 clearly anticipates dredging, diking, and filling of coastal waters for seawalls and is a more specific policy than Section 30233(a) in this regard. In other words, Section 30235 of the Coastal Act requires the Commission to approve seawalls in certain circumstances, even though such activities may not comply with the allowable-use test of Section 30233(a) of the Coastal Act. Thus, to the extent Section 30235 requires that the Commission approve this project, the more specific direction of Section 30235 would override in this case.[24]

B. Allowing Shoreline Armoring

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, with the exception of new coastal-dependent uses, Section 30235 limits the construction of shoreline protective works to those required to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures can have a variety of negative impacts on coastal resources including adverse affects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

Under Coastal Act Section 30235, a shoreline structure must be approved if: (1) there is an existing structure; (2) the existing structure is in danger from erosion; (3) shoreline-altering construction is required to protect the existing threatened structure; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three questions relate to whether the proposed armoring is necessary, while the fourth question applies to mitigating some of the impacts from it.

1. Existing Structure to be Protected

[24] Note that other coastal resource issues associated with such fill are addressed in subsequent findings. Note too that the requirements of Section 30233(a) as regards mitigating impacts and identifying the last 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 seawalls occupying coastal waters. Giving precedence to the more particular provisions of Section 30235 over the more general provisions of Sections 30233(a) and is in accord with generally applicable principles of California law (see, for example, Civil Code Section 3534 ("Particular expressions qualify those which are general")).

For the purposes of shoreline protective structures, the Coastal Act distinguishes between development that is allowed shoreline armoring, and development that is not. Under Section 30253, new development is to be designed, sited, and built to allow the natural process of erosion to occur without creating a need for a shoreline protective device. Coastal development permittees for new shorefront development are thus making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, offshore recreational access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems.

In addition, the Commission has generally interpreted Section 30235 to apply only to existing principal structures. The Commission must always consider the specifics of each individual project, but has generally found that accessory structures (such as patios, decks, gazebos, stairways, etc.) are not required to be protected under Section 30235, or can be protected from erosion by relocation or other means that do not involve shoreline armoring. The Commission has generally historically permitted at grade structures within geologic setback areas recognizing that they are expendable and capable of being removed rather than requiring a protective device that would alter natural landforms and processes along bluffs, cliffs, and beaches.

Coastal Act 30235 allows for shoreline protection in certain circumstances (if warranted and otherwise consistent with Coastal Act policies) for "existing" structures. One class of "existing structures" refers to those structures in place prior to the effective date of the Coastal Act. Coastal zone development approved and constructed prior to the Coastal Act went into effect was not subject to Section 30253 requirements. Although some local hazard policies may have been in effect prior to the Coastal Act, these pre-Coastal Act structures have not necessarily been built in such a way as to avoid the future need for shoreline protection (in contrast to those evaluated pursuant to Section 30253).

A second class of existing structures refers to those structures that have been permitted since the effective date of the Coastal Act. There has long been discussion that these structures should not constitute "existing structures" for purposes of Section 30235 because they were developed pursuant to 30253 (and/or similar LCP) standards so as not to require shoreline armoring in the future. However, the Commission has generally interpreted "existing" to mean structures existing at the time the armoring proposal is being considered, whether these structures were originally constructed before or after the Coastal Act, and has not limited consideration of armoring only to those structures constructed prior to the Coastal Act.

And finally, in a limited number of cases, the Commission has required applicants for blufftop structures to waive any right to a seawall that may exist pursuant to Section 30235; in other words to stipulate that they are not existing structures for 30235 purposes because the structures have been sited and designed to not need shoreline armoring in the future (pursuant to Section 30253 and LCP counterpart policies).[25]

In this case, the structures for which protective armoring is being considered are East Cliff Drive,

[25] For example, the Swenson residence just downcoast of Opal Cliffs in the City of Capitola (A-3-CAP-99-023, approved by the Commission in 1999).

including the recreational component of it nearest the bluff edge, and the subsurface utilities.[26] These structures pre-date the Coastal Act, and thus are existing structures for purposes of Section 30235.

2. Danger from Erosion

The Coastal Act allows shoreline armoring to protect existing structures in danger from erosion, but it does not define the term "in danger." There is a certain amount of risk 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 hazards. These risks can be exacerbated by such factors as sea level rise and localized geography that can focus storm energy at particular stretches of coastline. As a result, some would say that 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 pursuant to Coastal Act Section 30235. Lacking Coastal Act definition, the Commission's long practice has been to evaluate the immediacy of any threat in order to make determinations as to whether an existing structure is "in danger." While each case is evaluated based upon its own particular set of facts, the Commission has generally interpreted "in danger" to mean that an existing structure would be unsafe to use or otherwise 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).

Portions of East Cliff Drive in the project area have already fallen to the beach below. The road was reduced to one-way vehicular travel in 1995 in response to some such erosion events.[27] Currently, portions of the pavement are cordoned off and are off-limits to access due to the loss of bluff area below them, and most of the roadway and recreational trail area, and the park at the Hook, is essentially immediately adjacent to the bluff edge otherwise (see photos in Exhibit A). The collector sewer line below the East Cliff Drive pavement is approximately 15 to 20 feet from the bluff edge (on average) and is as close as 10 feet in several places; the water lines are within about a foot. The County estimates that long term average annual erosion for this stretch of coast is approximately 8 inches to a foot per year, with the potential for larger bluff failures of up to 10 feet in a single episode documented within these bluff areas. Based on these factors, the County's geotechnical consultant (Sanders and Associates Geostructural Engineering Inc.) has estimated that almost all of the roadway and related development along the proposed seawall area is either 1) currently undermined and erosion has resulted in loss of road ("actively affected" per the County),[28] or 2) in danger and unsafe to use in the next few years ("in danger" per the County). These roadway areas are either undermined or located within 10 feet of the blufftop edge. The remaining area, consisting of multiple smaller and disjointed areas[29] were deemed "potentially in danger" by the County's geotechnical consultant because they were located 10 feet or more from the blufftop edge.

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[26] Note that there is at least one intervening (between East Cliff Drive and the ocean) privately owned parcel that would be protected by the seawall nearest to its downcoast end at 36th Avenue. The County indicates that this parcel would be acquired prior to seawall construction.

[27] Ultimately, this action was recognized by Santa Cruz County CDP 96-0029 in 1996.

[28] Including areas where emergency repairs were recently completed.

[29] Up to about 60 feet total within the larger proposed seawall area, and an additional area at the Hook.

In addition, it is generally understood and accepted that sea-level is slowly rising. In the Monterey Bay area, the trend for sea level rise for the past 25 years has been an increase resulting in an historic rate of nearly 1 foot per 100 years.[30] An upper bound estimate for future sea level rise is that it may rise by an additional 3 feet over the next 100 years.[31] Because a rise in sea level will intensify coastal erosion conditions (moving the intensity of ocean storms inland because shallow water is encountered by such storms closer inland than today),[32] more intense storms and a possible increase in erosion are possible. In addition, the frequency of damaging storms (i.e., storms that can damage the site) would be expected to increase from the historical averages so that more storms, and more intense storms, would be expected to occur at the site more often than has occurred in the past. The result is that future erosion danger will only increase as sea level rises relative to today.

The Commission's geologist evaluated the project and the project's underlying threat evaluation, and concluded that the existing structures are "in danger" as that term is understood in a Coastal Act context. The Commission concludes that East Cliff Drive (including its recreational trail and related amenities) and the underground utilities in the project area qualify as existing structures in danger from erosion for purposes of Section 30235.

3. Feasible Protection Alternatives to a Shoreline Structure

The next Section 30235 test that must be met before a shoreline protective device can be approved is

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30 NOAA, National Ocean Service.

31 There is a growing body of evidence that there has been a slight increase in global temperature and that an acceleration in the rate of sea level can be expected to accompany this increase in temperature. According to the *Third Assessment Report - Climate Change 2001*, by the International Panel on Climate Change (IPCC) global sea level is predicted to rise by 0.09 to 0.88 meters (0.3 to 2.88 feet) from the 1990 level by 2100, with significant regional variability. Monterey Bay was not included in the estimates of sea level rise through the year 2100. The closest tidal stations with an adequate record to use for a 100-year projection were San Francisco and Santa Monica. Both those locations could, by the year 2100, have a rise in sea level approaching 3 feet, with a 10% probability that it would be higher than that, based on estimates of historic and future sea level change provided by the U.S. Environmental Protection Agency in Titus and Narayanan (1995) "The Probability of Sea Level Rise" (EPA 230-R-95-008). In the Monterey Bay area, the trend for sea level rise for the past 25 years has been an increase resulting in an historic rate of nearly 1 foot per 100 years (NOAA, National Ocean Service), significantly higher than the average historic change recorded at either San Francisco or Santa Monica. This deviation in historic trends between Monterey Bay and both San Francisco and Santa Monica is very likely due to the short duration of the tidal record at Monterey; however, it can also suggest that the localized rise in sea level in Monterey Bay may be higher than what was experienced at either San Francisco or at Santa Monica. Thus the future 100 year-change in mean sea level for Monterey Bay may be higher than the estimated 2.7 feet (for San Francisco) or the estimated 2.85 feet (for Santa Monica), for both of which there is a 10% probability of being exceeded. The RFEIR also echoes this 3-foot upper bound for sea level rise (RFEIR page 6-33).

32 With global warming and sea level rise, increased relative wave heights and wave energy are expected. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in water depth and wave height can cause a significant increase in wave energy and wave damage. So, combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to both inundation and wave attack, and those areas that are already exposed to wave attack will be exposed to more frequent wave attack with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

A second concern with global warming and sea level rise is that the climatic changes could cause changes to the storm patterns and wave climate for the entire coast. As water elevations change, the transformation of waves from deep water will be altered and points of energy convergence and divergence could shift. The new locations of energy convergence would become the new erosion "hot spots" while the divergence points may experience accretion or stability. It is highly likely that portions of the coast will experience more frequent storms and the historic "100-year storm" may occur more often.

that the proposed armoring must be "required" to protect the existing threatened structure. In other words, shoreline armoring must be permitted if it is the only feasible[33] alternative capable of protecting the endangered structure. When read in tandem with other applicable Coastal Act policies protecting coastal resources as cited in these findings, this 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to protect existing endangered structures. Other alternatives typically considered include: the "no project" alternative; abandonment of threatened structures; relocation of the threatened structures; sand replenishment programs; drainage and vegetation measures on the blufftop itself; and combinations of each. Because the no project alternative does not protect the existing endangered structures, it is not feasible in a 30235 protection sense.

In this case, the County considered a full range of alternatives, including armoring alternatives (partial armoring, groins, rip-rap, etc.) and non-armoring alternatives. In terms of the non-armoring alternatives, the County evaluated the types of alternatives typically considered by the Commission, as follows:[34]

Drainage and landscaping

A non-shoreline structure alternative typically considered by the Commission to respond to erosion is the use of selected bluff plantings and improved blufftop drainage controls. In this case, it is clear that uncontrolled drainage over the top of the bluff has resulted in some erosion of the bluffs. The bluff slopes are partially vegetated, but are primarily exposed marine terrace deposits. There is little doubt that drainage control and some planting would help reduce erosion at this location. However, the alternative of plantings and bluff drainage controls (in some combination) is not necessarily meant to be considered an equal alternative to a seawall or other more major form of bluff altering armor. In fact, this alternative is not generally seen as the ultimate "fix" or as a replacement for a "hard" armoring project such as that proposed. Rather, these types of "soft" alternatives can serve to extend the design life of setbacks by increasing bluff stability and slowing erosion. Thus, they must be understood as alternatives that can allow for natural processes to continue while simultaneously providing continued stability to the bluff. Given the active forces of erosion taking place unabated along the unarmored California coast, erosion will eventually (over the long-term) result in bluff retreat. At that point, in some cases, plantings and bluff drainage controls may not be adequate to address the erosion problem of themselves (particularly if they have already been implemented previously and their effect on bluff stability already factored into the analysis), and other alternatives could become more feasible (including wholesale relocation out of danger and even armoring of the coast).

Because East Cliff Drive is already being undermined in discrete locations, it does not appear that additional drainage controls and/or additional plantings by themselves would be able to stabilize the bluff to such a degree as to protect against additional loss of East Cliff Drive even from a relatively small bluff failure in one major storm event that affected these undermined areas. Such measures could

[33] Note that 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.

[34] See County alternatives analysis in Exhibit E.

slow erosion to a minor degree where there is planting space, but this alternative alone would be insufficient to protect the portions of the existing structures that are threatened in this case. That said, aggressive planting and drainage controls have a utility in all other alternative project scenarios and should be included in any project here (see public access and recreation, visual, and water quality findings that follow).

Relocation of Endangered Structures

Approximately 5 to 10 feet of the East Cliff Drive right-of-way between 32nd and 36th Avenue is covered by private landscaping and other development, and in places sidewalk. At 41st Avenue, the inland space is covered with existing landscaping and pathways associated with the County's public Hook parking lot. This space could be used to relocate the road, utilities, and pedestrian trail component of it inland by roughly 5 to 10 feet. The cost for such a relocation project has been estimated to be about $2.5 million.[35]

Such a relocation would essentially "buy time" until the relocated development would again be threatened by erosion danger. In other words, the relocation would extend the useful life of the setback for a period of time. Overall, this could be as little as a year (based on the potential for episodic events of up to ten feet of bluff erosion at a time) to up to five or ten years (based on long term erosion rates). It would be expected to be even less where the bluff edge is closer to the road and where the amount of blufftop space is the most limited (i.e., generally where the existing pavement has been undermined), where these areas could be removed in one major storm event.

Thus, relocation cannot be expected to protect endangered existing structures for any significant length of time.

Relocation and Modification of Endangered Structures

In order for relocation inland to provide adequate protection (and setbacks), some portion of the existing road/recreational trail would need to be eliminated. In other words, the structures to be protected would need to be reduced in scope. In such a case, however, and depending in the nature of the reduction and how much of East Cliff Drive and its function were abandoned and eliminated (such as closing East Cliff Drive to through traffic), this alternative would be fairly similar to the relocation alone option. In addition, if a 25-foot setback were used as the goal (e.g., to allow for continued steady erosion and the maximum estimated large block failure occurring two years in a row),[36] it appears unlikely that a reduced scale road and trail could be even re-constructed inland.[37] Thus, relocation and modification cannot be expected to protect endangered existing structures for any significant length of time.

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[35] About $500,000 to move the road, and about $2 million to move the utilities (RFEIR pages 2-13 and 2-17).

[36] It is unlikely that the same location that lost ten feet of bluff would lose another ten immediately following because bluffs tend to vacillate between oversteepened and understeepened conditions (the former will be "corrected" by episodic failure, and the latter will be "corrected" by continued marine erosion at the toe of the bluff). However, this is a useful analytic tool for a worst case scenario such as that.

[37] And if it could and if other permutations were applied (such as closing the road to traffic, etc.), additional issues arise (e.g., in terms of access and emergency response to homes fronting East Cliff, etc.).

Beach Formation

In general, regional programs to promote beach building (through beach nourishment, sand bypass, etc.) can reduce both the rate of erosion and the need for armoring. Such programs are, however, expensive and their record in terms of effectiveness at building and maintaining beaches has been spotty. Moreover, during the types of episodic storms prevalent in Monterey Bay, such newly formed beach sands are likely to be moved offshore by wave action and not provide adequate protection against large storms.

Due to the angle of the shoreline (east or southeast) in relation to the dominant angle of wave approach (from the northwest), littoral transport of sand along the project area is effectively maximized and little sand accumulates here. The beaches at this location do vary seasonally, as they do generally in this area, but they are generally very small, and historic photo analysis indicates they have been that way since at least 1928.[38] Attempting to build beaches at this location, absent significant barriers designed to retain the sand (such as groins extending out into the water), would not be expected to be successful, and would not be expected to be able to protect endangered structures here.[39]

Planned Retreat

The concept of planned retreat posits that instead of allowing continued armoring, the shoreline should be allowed to retreat naturally. In this way, as the shoreline naturally erodes and sea level rises, new beaches would form (as bluffs naturally crumble and contribute sand to beaches over time). Beach formation would partly be assisted by the sand generating material in the "freed" bluffs themselves, but more importantly there would be space for the natural equilibrium between the shoreline and the ocean to establish itself and for beaches to form naturally.

The primary difficulty with a planned retreat strategy is that much of the armored shoreline (and shoreline where armoring is considered) is currently fronting development, residential and otherwise, that would eventually need to be retired (e.g., purchased, with armoring (if any) and development on it removed) if the shoreline were to be allowed to retreat naturally. The cost of retiring such development statewide (or even in identified sub-regions) would be extremely high, particularly in urban areas of the state (such as the project location) where some of the most expensive homes and real estate are located at the shoreline's edge.[40] Of course, in areas where planned retreat were formally codified, and where

[38] RFEIR page 2-15.

[39] That is not to say that beach building programs wouldn't have some independent utility overall and in relation to this site. It is possible that regional programs to help build beaches can be successful, and may help to provide some protection to inland development as a result. In terms of comments regarding the Santa Cruz Harbor, sand bypass at the Harbor jetties appears to have reached a new equilibrium of sorts inasmuch as a nearly maximum beach has formed upcoast of the Harbor and sand that doesn't get stuck in the Harbor and its jetties bypasses it. That said, although sand that is trapped in the Harbor channel is routinely dredged and deposited on the downcoast beach for nourishment, downcoast beaches may be deprived of a portion of this sand in winter months when it is most needed to protect bluffs from surf erosion. The use of some upcoast (of the Harbor) beach sand to nourish downcoast beaches and/or some form of active beach nourishment (to increase the volume of sand in the littoral system) would likely help build beaches in the project area, which has an independent utility, but it would not be adequate to protect endangered structures in the project area.

[40] Part of the reason that such property and the development on it is so costly is that the true costs of maintaining such development are not entirely internalized by such property owners. For example, the cost to the people of the State (and visitors to it) from a long term loss of beach due to private armoring is not borne by these property owners. Likewise, low- and no-interest government-backed loans

the costs of maintaining development in such high hazard areas were thus internalized, these properties and the developments on them would become less expensive as a result. In terms of retiring public facilities, additional costs are engendered (such as loss of the use of the facilities themselves for the public (such as the public recreational area at East Cliff Drive).

There are, of course, multiple permutations of a planned or managed retreat policy. These include using beach nourishment to slow coastal erosion, temporary protection measures during winter storms (e.g., removable walls, sand berms, etc.), and adequate setbacks for new development. On the latter point, it is noted that the Coastal Act requires that new development to be set back a sufficient distance to allow natural erosion to take place without reliance on future armoring. Typically, the setback distance is established based on an estimated economic lifetime of the development (typically 50 to 100 years). However, history has proven that coastal real estate does not have such an economic lifetime. Rather, the development lifetime for shoreline real-estate (given current policies and the lack of internalization of the true "costs" of development in high hazard areas) is typically extended indefinitely through redevelopment. Over time, even well set back development will require some manner of shoreline protection. This is the case even if these structures were built to a one-hundred year setback, and even if the need does not arise for one-hundred years.[41] In any case, to date, the Commission and its local government partners have not systematically accounted for the second part of the one-hundred year setback equation – namely, enforcing the identified economic lifetime for such high hazard area development.[42] More troubling, the Commission is being faced with applications for extremely well-engineered structures designed to withstand long-term erosion not through the use of setbacks, but rather by using large, deeply embedded piers designed to elevate the useable structural areas higher than expected storm events. If such structures can withstand long term erosion and sea level rise (as they are being designed to do), they will eventually be severed from the shoreline as it continues to retreat – becoming much like small oil drilling platforms dotting the shoreline.

In this case, the County evaluated planned retreat as it relates to the project area. The idea in this case would be that over the long run the 12 to 14 inland residences along East Cliff Drive would be acquired and demolished, and the public improvements relocated inland as necessary in response to shoreline erosion. Of course, this "rolling setback" would not be a one-time cost, but rather would continue in response to continuing natural erosion. In its evaluation, the County dismissed planned retreat based on the high cost of acquiring the directly inland residences at this location and relocating public improvements inland,[43] and also dismissed it based on the assertion that such a program "could not be reasonably devised for the project area alone but would need to be addressed on a policy level and implemented on a regional basis, in concert with other land management agencies." Regarding the

(e.g., FEMA), and even disaster replacement grants, are available to property owners in such high hazard areas, where the public bears the cost of providing grants and/or making funds available for free and/or at less than market loan rates. If these true costs were internalized, these properties and the development on them would be less expensive.

41 Note that the Commission and local government are increasingly being confronted with applications for armoring to protect development that was set back for one-hundred years of erosion, but that is already in danger. In some cases, the subsequent armoring application follows within a few years.

42 That is, requiring such development to be moved or removed after the end of its identified lifetime.

43 Estimated to cost $58 million to $66 million over the next 100 years.

former, costs could theoretically be spread over time just as with any large-scale public investment, and acquisition would not need to occur immediately or at the same time. That said, it would take large-scale programmatic change to have these costs internalized appropriately. It is clear that inland acquisition at this location and at this time would be extremely costly. In terms of the latter, a successful planned retreat strategy likely would involve a much larger geographic region than the project area here. Much of urbanized Santa Cruz County up and downcoast is armored. These areas, too, would likely need to be part of a planned retreat strategy. And implementing it would require legislative change and direction, including to the Coastal Act with respect to armoring.

In this case, planned retreat could provide space with which to relocate endangered structures, but its high cost and required programmatic/legislative components make it infeasible, and this alternative is not feasible to protect existing endangered structures at the project area.

Although it is unclear at the current juncture whether planned retreat in California will come to fruition, it is worthy of consideration and broader discussion. The beaches of California, including those here in Santa Cruz County, are an irreplaceable resource. If they are going to be lost to an armored shoreline, it should not be allowed to happen incrementally and without public awareness and deliberation. Rather, such a fundamental resource issue for the State requires that conscious decisions be made (legislative, regulatory, judicial), including acknowledging the difficult choices inherent in that decision.[44]

Alternatives Conclusion

It is clear that there are some non-armoring alternatives that could be pursued at this location, but it is equally clear that they are either infeasible or would not be sufficient to protect existing endangered structures for any length of time. Rather, they are best conceptualized as alternatives that could extend the useful life of setbacks at this location. Given the limited amount of space available, and the degree of threat currently (and as would continue in the future absent armoring), there would be very little time gained for natural erosion processes to take place. In addition, such erosion would be at the expense of the roadway and its recreational utility, particularly in a alternative that eliminated portions of it.

In terms of lesser armoring alternatives (like armoring only the Purisima), they would serve to further extend the useful life of setbacks, but they still result in loss of endangered structures (and improvements) over time as the unarmored sections eroded. Given that they would have similar coastal resource impacts as the proposed seawalls, they are not further considered.

The Commission concludes that the proposed seawalls meet the third test of Section 30235 of the Coastal Act.

4. Sand Supply Impacts

The fourth test of Section 30235 (previously cited) that must be met in order to require Commission

[44] Of course, if, in the future, the State or even local governments embrace planned retreat as a strategy, the removal of a hard armoring structure at the project location would be a small part of that program inasmuch as many miles of hard armoring would need to be removed and other shore-fronting development retired to allow for the strategy to work comprehensively.

approval is that shoreline structures must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.

Shoreline Processes

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, becoming beach material when the bluffs or dunes lose material due to wave attack, landslides, surface erosion, gullying, et cetera. Coastal dunes are almost entirely beach sand, and wind and wave action often provide an on-going mix and exchange of material between beaches and dunes. Many coastal bluffs contain marine terrace deposits that may consist, in part, of ancient beach deposits that formed when land and sea levels differed from current conditions. Since some marine terrace deposits consist of ancient beach material, a large proportion of the material in the terraces is often beach quality sand or cobble, and a valuable contribution to the littoral system when it is added to the beach. While beaches can be preserved as marine terrace deposits over geologic time, the normal exchange of material between beaches and bluffs is for bluff erosion to provide material to the beach. Bluff retreat and erosion is a natural process resulting from many different factors such as: erosion by wave action that may cause cave formation, enlargement and eventual collapse; saturation of the bluff soil from ground water causing the bluff to slough off; and natural bluff deterioration. When the back-beach or bluff is covered by a shoreline protective device, the natural exchange of material either between the beach and dune or from the bluff to the beach will be interrupted and, if the shoreline is eroding, there will be a measurable loss of material to the beach. Since sand and larger grain material is the most important component of most beaches, only the sand portion of the bluff or dune material is quantified as beach material.

These natural shoreline processes affecting the formation and retention of sandy beaches can be significantly altered by the construction of shoreline armoring structures since bluff retreat is one of several ways that beach quality sand is added to the shoreline. Bluff retreat and erosion is a natural process resulting from many different factors; shoreline armoring directly impedes these natural processes.

The subject site is located within the Santa Cruz littoral cell. The Santa Cruz cell is a high volume cell with annual longshore transport estimated between 250,000 and 325,000 cubic yards of beach quality materials annually.[45] The dominant direction of longshore transport in this sand supply system is north north-west to south south-east (roughly from up to downcoast in relation to the site). Materials in this system have been estimated to come mainly from coastal streams (roughly 66%), with 22% coming from gullies and sand dunes, and 12% coming from bluffs.[46]

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 local shoreline sand supply

[45] RFEIR page 6-14.

[46] Patsch 2005 (RFEIR page 6-14).

shoreline processes can be quantified,[47] however, including: (1) the loss of the beach area on which the structure is located; (2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline (also known as "passive erosion"); and (3) the amount of material which would have been supplied to the beach if the back beach or bluff were to erode naturally.[48]

Fixing the back beach

Experts generally agree that where the shoreline is eroding and armoring is installed, as would be the case here, the armoring will eventually define the boundary between the sea and the upland. On an eroding shoreline fronted by a beach, the beach will be present as long as some sand is supplied to the shoreline and the beach is not submerged by sea level rise. As erosion proceeds, the beach also retreats. This process stops, however, when the retreating shoreline comes to a revetment or a seawall. While the shoreline on either side of the armor continues to retreat, shoreline retreat in front of the armor stops. Eventually, the shoreline fronting the armor protrudes into the water, with the mean high tide line fixed at the base of the structure. In the case of an eroding shoreline, this represents the loss of a beach as a direct result of the armor.

In addition, sea level has been rising slightly for many years. As indicated previously, the trend for sea level rise in the Monterey Bay for the past 25 years has been an increase resulting in a 100 year rate of nearly 1 foot per 100 years. Also, there is a growing body of evidence that there has been a increase in global temperature and that an acceleration in the rate of sea level can be expected to accompany this increase in temperature (as indicated previously, some shoreline experts have indicated that sea levels could rise as much 3 feet by the year 2100). 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. On a relatively flat beach (such as that found at the base of the bluffs here), with a slope of 40:1, every inch of sea level rise will result in a 40-inch landward movement of the ocean/beach interface.[49] This, too, leads to loss of the beach as a direct result of the armor. These effects are also known as "passive erosion."

The Commission has established a methodology for calculating the long-term loss of public beach due to fixing the back beach, this impact being equal to the long-term erosion rate multiplied by the width of

[47] The sand supply impact refers to the way in which the project impacts creation and maintenance of beach sand. Although this ultimately translates into beach and offshore recreational access impacts, the discussion here is focused on the first part of the equation and the way in which the seawall would impact sand supply processes.

[48] Note that the proposed seawall project includes removal of existing concrete rubble and relocation of rip-rap. The Commission has been unable to establish a clear history, permit or otherwise, for these materials. Although the existing concrete rubble and rip-rap already result in some of the types of impacts described here, the evaluation that follows does not includes their impacts as baseline inasmuch as it is unclear that these materials have been recognized (pre-dating CDP requirements and/or authorized by CDP), and the most conservative tact in light of this uncertainty is to not include them as a baseline sand supply condition. In any case the strewn concrete rubble and rip-rap does not have nearly the magnitude of sand supply impact as the seawalls.

[49] In other words, a one-inch rise in sea level can result in over 3 landward feet of dry sandy beach loss. For the 3 feet rise estimated by 2100, that would translate into a 120 foot landward movement of the wet-dry intersection on a beach sloped at 40:1.

bluff which has been fixed by a resistant shoreline protective device.[50] Using this calculation, the impact would translate in this case to 1,410 square feet per year.[51] To convert the 1,410 square foot loss of beach per year into the volume of sand necessary to restore the beach commensurately in cubic yards, coastal engineers use a conversion value representing units of cubic yards per square foot of beach.[52] In this case, the Commission has not been able to establish an actual conversion factor for the Pleasure Point vicinity. However, if a 1.0 conversion factor is used (i.e., the low end of the spectrum of values typically assumed by coastal engineers), a conservative estimate of the cubic yard equivalent of 1,410 square feet per year can be calculated. Using the sand conversion factor of 1.0, the direct loss of beach due to fixing the back beach (i.e., "passive erosion") translates into a yearly impact of 1,410 cubic yards of sand due to the seawall project.[53]

Encroachment on the Beach

Shoreline protective devices such as the seawall proposed are all physical structures that occupy space. When a shoreline protective device is placed on a beach area, the underlying beach area cannot be used as beach. 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 area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

Using the Commission's long-standing methodology, the proposed project would cover an area of sandstone and beach area that would otherwise contribute to the local sand supply during winter beach conditions, and/or that would otherwise be occupied by beach sand part of the year. In this case, the seawall's base would occupy roughly 8,400 square feet of beach space, the rip-rap at the downcoast O/Neill transition would occupy an additional 750 square feet, and the rip-rap to remain at the Hook would occupy an additional 4,025 square feet, for a total of 13,175 square feet of encroachment.[54] Using

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[50] The area of beach lost due to long-term erosion (Aw) is equal to the long-term average annual erosion rate (R) times the number of years that the back-beach or bluff will be fixed (L) times the width of the bluff that will be protected (W). This can be expressed by the following equation: Aw = R x L x W.

[51] That is, 1 foot per year (the long term average annual erosion rate used by the County and their consultants for demonstrating threat) multiplied by 1,400 feet for the seawall, and by 10 feet for the transition rip-rap proposed at the downcoast end (between the seawall and the O'Neill residence) equals 1,410 square feet per year.

[52] This conversion value is based on the regional beach and nearshore profiles, and overall characteristics. When there is not regional data to better quantify this value, it is often assumed to be between 1 and 1.5, the idea being that to build a beach seaward one foot, there must be enough sand to provide a one-foot wedge of sand through the entire region of onshore-offshore transport. If the range of reversible sediment movement is from -30 feet msl to +10 feet msl, then a one-foot beach addition must be added for the full range from -30 to +10 feet, or 40 feet total. This 40-foot by 1 foot square parallelogram could be built with 1.5 cubic yards of sand (40 cubic feet divided by 27 cubic feet per cubic yard). If the range of reversible sediment transport is less than 40 feet, it will take less than 1.5 cubic yards of sand to rebuild one square foot of beach; if the range of reversible sediment transport is larger than 40 feet, it will take more than 1.5 cubic yards of sand to rebuild one square foot of beach.

[53] The County and their consultants did not quantify a passive erosion impact.

[54] The seawall footprint area is based on a 6 foot width (4 foot of scour apron and 2 feet of wall thickness) extending from the bluff, and an 1,400 foot length. The transition rip-rap would occupy a similar area measuring roughly 30 feet by 25 feet, and the Hook rip-rap

the conversion discussed above, this translates into a one-time impact of 13,175 cubic yards of sand.

Retention of Potential Beach Material

If natural erosion were allowed to continue (absent the proposed armoring), some amount of beach material would be added to the sand supply system (associated with both the immediate Pleasure Point area and the larger littoral cell) from the bluffs. 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 location without shoreline protection. Since the main concern is with the sand component of this bluff material, the total material lost must be multiplied by the percentage of bluff material which is beach sand, giving the total amount of sand which would have been supplied to the littoral system for beach deposition if the proposed device were not installed. The Commission has established a methodology for identifying this impact.[55]

Using this methodology, the County and their consultants estimate this impact to be 308 cubic yards of sand per year for the seawalls.[56] However, this calculation uses an erosion rate of 0.5 feet per year, and it omits the area where the existing emergency walls are present. In terms of the latter, these walls have yet to be permitted by regular CDP (and the prior crib walls enjoyed no CDP status) and thus these areas too must be included in the calculation. In terms of the erosion rate, the County and their consultants have applied a 1-foot per year erosion rate in terms of estimating the degree of threat at the site, erring on the conservative side of the spectrum of estimated rates. By the same token, this same rate should be applied to the sand retention calculation. Accordingly, using the same methodology and modifying these two factors, the estimated amount of sand that would be blocked would be 714 cubic yards of sand per year for the seawalls.

Sand Supply Impacts Conclusion

The proposed project would be expected to result in quantifiable sand supply impacts totaling 15,299

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maps out as 4,025 square feet from the project plans. The County and their consultants identified the seawall footprint area as 1,440 square feet of coverage based on 960 linear feet multiplied by 1.5 feet, where the 1.5 feet was based on estimates of the thickness of the existing emergency walls, and it is not clear from where the 960 lineal feet emanates.

[55] The equation is Vb = (S x W x L) x [(R x hs) + (1/2hu x (R + (Rcu - Rcs)))]/27. Where: Vb is the volume of beach material that would have been supplied to the beach if natural erosion continued (this is equivalent to the long-term reduction in the supply of bluff material to the beach resulting from the structure); S is the fraction of beach quality material in the bluff material; W is the width of property to be armored; L is the design life of structure (50 years assumed per ACOE, though its lifetime can also be considered indefinite) or, if assumed a value of 1, an annual amount is calculated; R is the long term average annual erosion rate; hs is the height of the shoreline structure; hu is the height of the unprotected upper bluff; Rcu is the predicted rate of retreat of the crest of the bluff during the period that the shoreline structure would be in place, assuming no seawall were installed (this value can be assumed to be the same as R unless the Applicant provides site-specific geotechnical information supporting a different value); Rcs is the predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (this value will be assumed to be zero unless the Applicant provides site-specific geotechnical information supporting a different value); and divide by 27 (since the dimensions and retreat rates are given in feet and volume of sand is usually given in cubic yards, the total volume of sand must be divided by 27 to provide this volume in cubic yards, rather than cubic feet).

[56] RFEIR page 6-19.

cubic yards the first year and 2,124 cubic yards per year thereafter.[57] Although relatively small on a yearly basis in comparison to annual littoral drift (at least after the first year of impact), these impacts are not eliminated and constitute impacts for purposes of Section 30235. It is also important to acknowledge the potential cumulative impact of this loss given that bluff sediments in this area may provide approximately 12% of the total sand supply to the cell. The County and their consultants indicate that the project's effect on sand supply is not significant, and offer no mitigation directly tied to this impact.

That said, the project does include components that can help mitigate for this sand supply impact, and there are appropriate additional complementary measures that can be applied to ensure that this impact is appropriately mitigated. Specifically, the project area rip-rap and rubble is mostly going to be removed as part of the project. Such removal will help to offset the sand supply impact by freeing up sand and beach area under the to be removed rock/concrete. As previously identified, however, the majority of this rock/rubble enjoys no CDP status, and thus the baseline here is as if most of it weren't here in the first place.[58] Although its removal clearly is a resource benefit, it appears as if its removal would be required irrespective of the project. That said, it does help to offset physical sand supply impacts.

To ensure that this sand supply impact (and others related to it that are keyed to beach recreational access loss and public view impacts)[59] is appropriately offset, and to account for the lack of status for most of the rock/rubble being removed, the maximum amount of rip-rap/rubble removal possible must be included as part of the project. Specifically, this means that the rip-rap that is proposed to be retained must be limited as much as possible. There are two areas where the project proposes to retain rip-rap: at the transition to the O'Neill revetment near 36th Avenue, and at the Hook.

With respect to the rock proposed at the transition of the larger seawall to the O'Neill revetment, it appears that more rock than is necessary is being retained here for transition purposes. It appears that most, if not all, of the rock on the County property can be removed and the wall made to transition into the bluffs and permitted rock on the O'Neill side of the property line.[60] The project must minimize the amount of rock at this transition to the maximum degree possible (see special condition 1).[61]

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[57] That is, 13,175 cubic yards due to beach area encroachment the first year, 1,410 cubic yards due to passive erosion the first year and every year thereafter, and 714 cubic yards due to retention of beach materials the first year and every year thereafter.

[58] As previously detailed, the Commission has been unable to establish a permit history for these most of these materials. This information is critical to establishing a baseline against which to compare the proposed project (i.e., what portions pre-date coastal permitting requirements and/or have been permitted, and what portions not). In other words, it is not clear whether removing these materials rectifies a coastal permit violation (and would be required in any case, whether or not the seawall project were before the Commission) or it is a mitigation that can be applied to proportionately reduce identified project impacts. Physically, it will reduce beach area impacts, but it is not clear whether this reduction is already and otherwise required, or rather whether it can be used to offset impacts of this proposed project.

[59] See also public access and recreation findings, and public viewshed findings that follow.

[60] The O'Neill revetment was permitted by the Commission through CDP P-78-463.

[61] Perhaps an even better coastal resource solution would be for the seawall to extend further downcoast in front of the O'Neill structure to allow all of the rock, including that on the O'Neill property, to be removed. The County explored this possibility with Mr. O'Neill and

With respect to the rock proposed to be retained at the Hook, it makes little coastal resource sense to retain rock in front of a concrete seawall installed at great public expense and with its own attendant resource impacts. The seawall does not need armoring/protection in this sense. Rather, the seawall should be capable of replacing the rock, as is the case between 32nd and 36th Avenues. In addition, to the degree to which the rock is proposed to be retained at the Hook to protect the wood stairway that would be reinstalled at this location, it makes better sense to install the stairway at this location in concrete than it does to re-install it as wood on piers (see also public access and recreation findings). The Commission's experience has been that concrete stairways are much more likely to survive the rigors of the shoreline interface, are subject to fewer repairs, and generally function better than wood in this environment. In addition, the seawall style and bluff configuration here lend themselves to incorporating the stairway into it (as is proposed for the stairways in the 32nd through 26th Avenue stretch), and can minimize viewshed impacts. Accordingly, this approval is conditioned for the removal of all rock at the Hook, and for modifying the stairway located there so that it is incorporated into the concrete wall in a similar manner as the other project stairways (see special condition 1).

By conditioning the project to maximize the removal of rock and concrete rubble, the sand supply impacts associated with the project can be appropriately offset. As such, the project thus satisfies the fourth test of Section 30235, and it can be found consistent with the provisions of Section 30235 of the Coastal Act.

C. Long Term Structural Stability

Pursuant to Coastal Act Section 30253 (previously sited), development is to be designed, sited, and built to allow for natural shoreline processes to occur without creating a need for additional more substantive armoring. Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, ESHA, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. Coastal Act Section 30253 requires that the proposed project assure structural stability without the need for additional armoring.

The seawalls have been designed by engineers with experience in coastal armoring projects to provide protection for 50 to 100 years or more.[62] Provided the project is monitored and maintained over time, the seawall portion should be able to be maintained in its design state and additional armoring can be avoided, consistent with Section 30253. Conditions are include to ensure that this is the case (see special condition 9).

With respect to the parkway improvements, the seawalls are required to protect the existing structures. The parkway improvements will then upgrade these structures, and the improved East Cliff Drive should be adequately protected for 100 years.

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indicated that a) Mr. O'Neill was not interested in such a permutation, and b) the County felt it an inappropriate use of public funds. Mr. O'Neill has a CDP for the revetment.

[62] RFEIR page 6-27.

D. Assumption of Risk

The experience of the Commission in evaluating the consistency of proposed developments with Coastal Act policies regarding development in areas subject to problems associated with geologic instability, flood, wave, or erosion hazard, has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, or other such occurrences. Oceanfront development is susceptible to bluff retreat and erosion damage due to storm waves and storm surge conditions. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden on the people of the state for damages, the Commission has regularly required that Applicants acknowledge site geologic risks and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed.

There are inherent risks associated with development on and around seawalls and eroding bluffs in a dynamic coastal bluff environment; this applies to the project proposed as well as for the development landward of the bluffs themselves. The seawall project site, and all development inland of it, is likely to be affected by shoreline erosion in the future.

Although the Commission has sought to minimize the risks associated with the development proposed in this application, the risks cannot be eliminated entirely. Given that the County has chosen to pursue the development despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the County to assume all risks for developing at this location (see special condition 10).

In sum, the project can be found consistent with Section 30253 and applicable LCP policies.

E. Geologic Conditions and Hazards Conclusion

The existing East Cliff Drive and related structures are in danger from erosion, and these existing structures require hard armoring to be protected. Conditions are included to ensure that the project is redesigned to appropriately offset its sand supply impact, and to ensure long term stability. As conditioned, the Commission finds the project consistent with the cited LCP and Coastal Act hazards policies.

B. Public Access and Recreation

1. Applicable Policies

Coastal Act Sections 30210 through 30214 and 30220 through 30224 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 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 30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b) also protects parks and recreation areas, such as the East Cliff Drive recreational area as well as the Pleasure Point beach and surf areas that front it. Section 30240(b) states:

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.*

Finally, Section 30253 protects special recreational destination points such as the project site and offshore. Section 30253 states, in part:

Section 30253(5). *New development shall: where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

With respect to the parkway components (and as guidance within the Commission's jurisdiction), applicable LCP public access and recreation policies were previously cited and are not re-cited here (see Substantial Issue Determination).

2. Analysis of Consistency with Applicable Policies

These overlapping Coastal Act policies clearly protect the existing East Cliff Drive recreational area, the beach, and the offshore surfing area for public access and recreation purposes, particularly free and low cost access such as that provided in abundance here.

A. Surfing

1. Surfing Background

Pleasure Point is an internationally known, world-class surfing area. "The Point" includes at least a half-dozen distinct surf breaks, each with its own unique characteristics, that provide a variety of opportunities for both novice and advanced surfers.[63] The high quality of surfing waves, and the consistently favorable surfing conditions found at Pleasure Point, make it 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.

While surfing at Pleasure Point is popular year-round, the largest and most consistent waves occur during the fall and winter seasons. During these times, winter storms under 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.

Equally important to the high quality surfing conditions at Pleasure Point is the configuration of the shoreline and the underwater topography. A series of points, reefs, and sandbars serve to guide and shape the waves, and cause them to break at predictable peaks that accommodate a wide range of surfing levels. The largest and fastest breaking waves peak at the up-coast portion of the Point, over rocky reef ledges, and are preferred by advanced surfers. The larger waves of the outer break transition to smaller, rolling waves further down-coast, which break over a combination of rocky shelves and sand bars, and are more suitable for beginners. On good days, a surfer can link a single ride across these various peaks for a distance of up to 200 yards.

The southwest facing direction of Pleasure Point, and its location within the northeastern portion of Monterey Bay, also contributes to the high quality surf by providing protection from predominant northwest winds and stormy ocean conditions. During the fall and winter surf season (October – March), average wave heights at Pleasure Point are five to eight feet, with larger swells of eight to twelve feet in height common. By contrast, wave heights at the more exposed west facing beaches can be twice that of Pleasure Point, with much rougher conditions that attract only the most experienced surfers. The cleaner, more manageable conditions at Pleasure Point that result from its protected location and the refraction of waves as they travel further into Monterey Bay, make it one of the most popular and consistent surfing breaks in all of California, and it is well known throughout the surfing world. When conditions are ideal it is not uncommon to see upwards of 100 or more surfers in the water along Pleasure Point.

Attesting to the significance of surfing at Pleasure Point is the existence of several surf schools, and a

[63] For example, Sewer Peak, First peak, Second Peak, 38th, et cetera.

large number of industries, shops, and visitor-serving establishments oriented to surfing located within a few miles. Multiple surf competitions are held each year at Pleasure Point, and many Santa Cruz surfers, who got their first experiences at the Point, have gone on to become internationally recognized professional surfers. It is a destination for water sports enthusiasts from around the world, as well as a gathering place where local and visiting surfers congregate to check the surf and share surf stories. Pleasure Point is at the hub of the Santa Cruz surfing community, and a unique and valuable recreational asset to the State of California.

2. Impact Analysis

Several relationships have been developed to establish wave characteristics. One relationship relates wave characteristics to beach slope and wave steepness.[64] A second relationship compares the wave vortex geometry to the orthogonal seabed gradient.[65] 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.

There are several ways that the proposed shoreline armoring could adversely impact surfing conditions at Pleasure Point.

a. Changes in Water Depth

Bathymetry is the measurement of water depth at various places in a body of water. As previously described, the underwater reef/rocky ledge at Pleasure Point is one of the most important physical features that result in high quality surfing waves. Sand deposition is also a factor. In general, the reef breaks at Pleasure Point are 400 to 600 feet offshore. Conditions vary somewhat, but since the reef is the primary physical feature controlling the location of the break, the break does not move much beyond the zone of influence of the reef feature, except when sand bars form. The influence of sand bars on the waves at Pleasure Point is most notable at the down-coast peaks, such as in the surfing area between 36th and 38th Avenues.

The affect of bathymetry on the shape of breaking waves at Pleasure Point can currently be observed at different tides. At higher tides, waves break closer to the bluff, with less steep faces. During tides greater than 6 feet, a decrease in the quality and frequency of surfing waves can be noticed at various locations within the Pleasure Point surfing area, particularly when swell size is under 6 feet.

Over the long term, the proposed seawall will influence the bathymetry at Pleasure Point by "fixing" the back beach. That is, the seawall 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

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

[65] 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 surf breaks included in this analysis.

by waves and would move landward over time. Using the estimated long-term erosion rate of 1 foot per year, the bluff would be expected to retreat landward approximately 50 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.

When combined with an armored shoreline, this increase in water depth can have an adverse long-term impact on surfing conditions. With or without armoring, water over the reef will be deeper more of the time. However, without a seawall, other wave-tripping features inland of the current break, such as rocky ledges of higher elevation or sandbars, will continue to result in breaking waves over the shallow waters that form as the bluff naturally erodes. In comparison, the installation of a seawall will prevent the surf break from adapting to increased sea level, 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.

Although it is difficult to predict the time frame over which such impacts may occur, the County recently partially funded significant data gathering work by USGS at the Pleasure Point site. As summarized by USGS:[66]

> *The USGS conducted an integrated study to document both the coastal and nearshore morphology and the spatial and temporal variation in waves at Pleasure Point, Santa Cruz County, California. These data were collected by means of three-dimensional beach and seacliff mapping using airborne and terrestrial lidar scanners, nearshore bathymetric surveys using single-beam fathometers and an interferometric side-scan swath bathymetric sonar, video monitoring using a digital still camera and digital video camera and in situ oceanographic measurements using a acoustic Doppler current profiler and directional wave gauge. In all, more than 39 million points of ground topographic data, 3.3 million points of seafloor bathymetric data, 40,000 images of wave breaking patterns and 8,900 in situ directional wave spectra measurements were collected. These data provide the baseline information needed for future studies directed toward predicting the impacts of stabilization on the seacliffs, beach and nearshore sediment profiles, natural rock reef structures, and offshore habitats and resources.*

The USGS data provides a valuable record of current baseline surfing conditions at Pleasure Point, including a detailed bathymetric map (see Exhibit F). Holding the range of variables constant and focusing on sea level rise, USGS was able to model the existing wave break location as determined by the baseline data gathering work as compared to the wave break location 100 years from now with sea level rise. Although the result must be understood in terms of its limitations (including the range of other factors affecting waves and how they may change over time, etc.), the results are informative for the Commission. In sum, over time and based on the undersea bathymetry, the wave break at Pleasure Point is not expected to move landward much at all, perhaps a few meters, in the next 100 years – with or

[66] Storlazzi, Curt D., Barnard, Patrick L., Collins, Brian D., Finlayson, David P., Golden, Nadine E., Hatcher, Gerry A., Kayen, Robert E., and Ruggiero, Peter, 2007, High-resolution topographic, bathymetric, and oceanographic data for the Pleasure Point area, Santa Cruz County, California; 2005-2007: U.S. Geological Survey Open-File Report 2007-1270, 23 p. [http://pubs.usgs.gov/of/2007/1270/]. See Exhibit F.

without the seawalls (see page 40 of Exhibit F). In other words, although the seawalls will have other detrimental effects, their effect on the main surfing break over time does not appear to be significant.

b. Wave Reflection

Another aspect affecting the waves at this location is the interaction between waves and the bluffs. The seawalls could affect this dynamic either by changing the reflection location of the wave, or by changing the amount of energy that is reflected. Reflection of wave energy can change the offshore wave patterns and diminish the quality of surfing waves. Often referred to as "backwash," reflected wave energy causes waves to break in unpredictable ways, and disrupts the clean line and peel of waves that make Pleasure Point a particularly high quality surf break.

In the short term, the concrete seawall, since it is proposed to "hug" the existing bluff contour and is not proposed as a poured in place monolith, should reflect and dissipate waves in a similar fashion to the existing sandstone bluffs; waves will respond similarly when striking either a concrete face or a sandstone face. As seen above, even in the long term (100 years), the wave break is not expected to move significantly and this same effect is expected. Clearly, at times of very high tides (and particularly with smaller waves), there will be reflection that muddies the break, but this shouldn't be any more significant than with a natural bluff. The removal of the rip-rap and rubble will also serve to amplify the reflection effect somewhat (and diminish the muddying effect), but this difference shouldn't adversely effect the surfing break at Please Point which is generally much further outside of the realm of such impact.

3. Surfing Conclusion

The impact of the proposed seawall on the Pleasure Point and Hook surfing areas is not expected to be significant. Although the seawall will result in the loss of some sand that would be supplied to the system (see sand supply finding preceding) that provides unknown sand bar formation and reef-filling (and that also causes waves to break), the effect of this singular impact on surfing is difficult to model and its effect is equally difficult to isolate and quantify. More importantly, the underwater bathymetry at Please Point indicates that the wave tripping features are not expected to change significantly even over the long term (100 years). As a result, the impact of the seawall on the waves is not expected to be different than the existing natural bluffs in that respect, even with sea level rise over time. As a means of better understanding wave changes in the project vicinity over time, and as a means of providing data that could be useful both in terms of understanding the Pleasure Point surfing breaks and in terms of wave and surfing research more generally, a surf monitoring program is required as part of this approval (see special condition 12). The intent of the surf monitoring program is to meaningfully build upon the baseline Pleasure Point surf data (i.e. video imagery) generated by USGS to date (see pages 8 through 40 of Exhibit F), and to both document changes in wave conditions over time and to evaluate the reasons for such changes, including with respect to changes that may be related to the approved seawalls (once constructed). Such ongoing data collection and evaluation will be useful to understanding changes in the Pleasure Point surf environment over time in relation to the seawalls. The monitoring is structured to provide for an initial baseline monitoring effort to create two additional datasets (post-seawall construction) that are akin to the USGS data set, and that will result in three such datasets spaced about

five years from each other. The datasets would then be evaluated and a report with recommendations developed, including recommendations to adapt the monitoring program to allow it to most appropriately transition to a longer term monitoring program (every five years).

The Commission therefore concludes that the proposed seawalls, as conditioned, are consistent with the cited Coastal Act policies that protect surfing and, by extension, the recreational destination that is Pleasure Point.

B. Beach/Surf Access

1. Beach Area Rubble and Rip-Rap Removal

The project would provide for the removal of the estimated 2,800 to 4,800 cubic yards of concrete rubble in the beach area, and some of the estimated 1,200 cubic yards of rip-rap (i.e., some would be retained and placed at the downcoast end of the seawall and at the Hook). This rubble and rip-rap currently blocks public access to a large portion of the beach area here, and increases dangers to users of this area. Some of the concrete rubble includes rusty pieces of jagged metal rebar in it. These materials are dangerous and public access-inhibiting generally, and can be particularly dangerous when they are at or just below sea and/or sand levels and not readily apparent to beach and ocean users. Thus, the removal of the materials would offset some of the coverage impacts due to the proposed seawall and would be a substantial benefit to public beach and recreational access. However, as previously indicated, the permit status for the rubble and rip-rap is not clear and thus it is not clear to what extent it can be used as mitigation for project-related impacts in this case. In any event, the removal of (most of) the rip-rap and the rubble would be a significant beach and offshore recreational access improvement and benefit associated with the project.

As previously indicated, the County proposes to use some of the existing rip-rap from the project area to act as a transition between the proposed seawall and the downcoast revetment fronting the O'Neill property, and at the Hook. The volume that would be used in this regard has not been specified, but as detailed in the preceding findings, this rip-rap would occupy approximately 750 square feet of beach and lateral recreational space at the O'Neill area, and roughly 4,025 square feet of beach and lateral recreational space at the Hook. This rip-rap would block through access at higher tides, potentially to and from the stairways themselves, degrading the beach recreational experience contrary to the access policies cited above, and degrading visual resources (see also visual resource findings that follow).

Although the transition rip-rap is proposed to front approximately 20 feet of the seawall, the transition rip-rap is not needed for scour protection fronting the seawall because the seawall includes a built-in scour apron for this purpose (as described above). As indicated previously, it appears that the end of the wall could be reconfigured in some alternative way so as to avoid the impacts from the placement of transition rip-rap. At the Hook, the rip-rap is not necessary to protect the seawall, and is not necessary for the stairway otherwise (see previous findings). As previously indicated in terms of sand supply, and

in this case to also ensure maximized beach recreational access opportunity, the rock must be eliminated and the stairway reconfigured in concrete and incorporated into the seawall.

Accordingly, to protect and maximize public recreational beach access as required by the Coastal Act, this approval is conditioned to minimize the amount of rock necessary at the O'Neill transition to the maximum degree possible, to remove all rock at the Hook, and to modify the stairway located at the Hook so that it is incorporated into the concrete wall in a similar manner as the other project stairways (see special condition 1).

2. Scour Apron

As described in the preceding finding, the seawall and related rip-rap would occupy roughly 13,175 square feet of beach area. Of this, approximately 7,575 square feet (the rip-rap area and the 2 foot thick wall area itself) would not be available for recreational access at any time, long or short term. The remainder, 5,600 square feet, is the area where the 4-foot scour apron would be constructed.

The four-foot scour apron would be expected to be covered with beach sand during summer elevations, and scoured during the winter. Because this beach area is primarily a through access area (at least during lower tides, and at other tides after the rubble and rip-rap are removed) as opposed to a "sitting" beach, the impact of the scour apron on through lateral access would be expected to be minimal because it would be constructed flush with the bedrock platform. The apron would introduce a decidedly unnatural concrete finish into the natural walkway area – an area that otherwise would be naturally undulating Purisima Formation outcrops. This impact would degrade the beach recreational experience, contrary to the access policies cited above, and would degrade visual resources when exposed (see also visual resource findings that follow). Thus, the scour apron as submitted is inconsistent with the Coastal Act policies listed above.

There are two ways of addressing this issue that could be used to achieve Coastal Act consistency.

The first is to remove the scour apron from the project. The apron has been designed so the reflected wave energy will scour the concrete base and not the more erodible Purisima Formation sandstone. The apron in not necessary in this regard, but there will likely be more scour-based destruction of the Purisima (at the base of the seawall) if the apron is not provided at the base. Absent the apron, the seawall footing itself might need to be extended deeper into the Purisima to account for the added scour at its base (i.e., without the apron, there may be up to a foot or more of additional scour into the Purisima, requiring another foot or more of footing depth). The scour at this location is an estimate inasmuch as the rubble has been keeping this Purisima covered for a long time. It may be chopped up and ready to scour with the first few storms, or it may be strong and competent and able to withstand wave forces for a few years before exhibiting a scour trench. If the beach recovers regularly, the scour trench would fill in with sand, but there would remain a depression in the Purisima once the sand moved offshore. The depression/scour hole would deepen in successive years and with successive wave action and abrasion.

The second option is to allow the scour apron, but require it to be sculpted, textured, and colored to

mimic the Purisima platform into which it would be embedded and made flush at the top. In this case, it would seem prudent to choose the option of retaining the scour apron and requiring its surface treatment to be modified to mimic the remainder of the wall. This conclusion makes particular sense in light of the majority use of the beach here for lateral as opposed to more general beach going access.

Thus, this approval is conditioned to ensure that the scour apron at the base of the seawall is constructed flush with the top of the Purisima platform, and its surface is colored, contoured, and textured to match the Purisima Formation in which it was embedded (see special condition 1).

3. Long-Term Loss of Beach

As previously indicated, the beach fronting the seawall is expected to disappear over time due to lack of sand supply, fixing the back beach, and rising sea levels. The County indicates that 10 to 20 feet of beach will be lost over the next 50 years.[67] The proposed and required by condition removal of the rubble and most all of the rip-rap can help partially offset this impact,[68] but it does not respond to the fact that this beach will be unavailable for public access at some point in the future due to the installation of the proposed seawall. This is inconsistent with the Coastal Act access and recreational policies cited above.

It appears that there are ways of addressing this issue that could be used to achieve Coastal Act consistency. One option that could be considered to address the loss of lateral beach area over time would be to include some type of platform in the base of seawall at a height above typical tides that would provide base of bluff lateral pedestrian access. However, although this could provide a new type of lateral access, it may appear unnatural, particularly if there had to be railings for safety purposes, and it would come at the expense of additional beach/intertidal coverage to provide adequate platform width. Ultimately, this design option may also not be appropriate given that blufftop recreational trail access is available at this location instead.

More appropriately, this loss of beach area is best addressed through recreational enhancement atop the bluffs in the East Cliff Drive right-of-way in the area that is being protected at its expense. In other words, provided public recreational access is maximized in the parkway portion of the project as directed by the LCP and the Coastal Act, this beach access impact could be mitigated by the access improvements of the parkway project (see parkway finding below).

4. Emergency Egress

The existing bluffs are characterized by areas of high relief or “goat trails” that allow surfers to clamor up some of the less steep bluffs should waves and tides dictate in an emergency situation. These areas, although infrequently used, remain an important element of the surf access system here. The County’s project includes some areas within the seawalls where such areas of high relief are replicated. To ensure continued emergency egress as much as possible consistent with ensuring adequate surf access, this

[67] RFEIR page 8-21.

[68] On this point, and as previously referenced, it is not clear that such rip-rap and rubble enjoys any permit status, and thus that is can be used to offset such impacts.

approval is conditioned for the seawalls to include as many of such areas as possible where surfers would be exiting the water in an emergency situation (see special condition 1).

5. Beach/Surf Access Conclusion

The Commission therefore concludes that the proposed seawall portion of the project is inconsistent with the provisions of Section 30210, 30211, 30213, 30220, 30221, 30223, 30240(b), and 30253(5) of the Coastal Act to protect (and mitigate unavoidable impacts to) beach and surfing access and, by extension, the recreational destination that is Pleasure Point. In order to address these inconsistencies and allow for an approvable project, conditions are applied to modify the scour apron, to modify the seawall transition at its downcoast end at O'Neill, to remove rip-rap at the Hook and modify the stairway there, to include surf monitoring, and to require parkway project enhancements to offset unavoidable impacts. As so conditioned, the project can be found consistent with the cited policies with respect to beach and surf access.

C. East Cliff Drive Recreational Access – County "Parkway" Project

As previously described, the East Cliff Drive corridor is heavily used by the public for physical and visual coastal access, but it clearly is in need of improvements to enhance the public coastal recreational experience. This portion of East Cliff Drive is currently dangerous for pedestrians and bicyclists, offers little in the way of formal amenities, and is aesthetically cluttered. Notwithstanding these shortcomings, the East Cliff Drive corridor remains an important coastal resource primarily because of significant amount of public use, and the significant coastal vista and neighborhood ambiance afforded the public here.

The parkway portion of the project would provide for substantial public improvements in the blufftop area. This project includes a new multi-user recreational trail, park improvements (including a restroom) at Pleasure Point Park, parking spaces, benches, landscaping, a reconstructed East Cliff Drive itself, and other related public improvements. In fact, and as opposed to typical armoring applications in front of the Commission where the impacts from the armoring are all borne by the public with all benefits to private landowners, the benefits and burdens in this case are both to the public. In fact, the County has considered and evaluated the parkway benefits as offsetting impacts that are due to the seawall portion of the project.

Although the parkway is a recreational access enhancement project, aspects of the project do not provide maximum public recreational benefit (and visual resource protection – see findings that follow). If the parkway project is to be used to offset the loss of beach over time, and if it is to maximize public recreational access opportunities and maximize public use and enjoyment of coastal recreation resources for all people consistent with the Coastal Act and the LCP, then modifications are required.

1. Private Encroachments Into Public Right-of-way

In general, Live Oak beach area streets are very narrow because of private encroachments into the public street right-of-way. These private encroachments (such as landscaping, fences, planter boxes – even houses) have significantly narrowed the space available for public use on these beach streets. In

fact, previous research by the Commission in the Live Oak beach area indicates that, on average, approximately 15 feet (or about 30%) of the width of each Live Oak beach area public street right-of-way has been otherwise covered with private development.[69]

The street right-of-way encroachments in Live Oak represent an uncompensated private use of public property and a loss of public access opportunities such as biking, walking, and parking. This public loss is particularly relevant in this area given the recreational importance of the East Cliff Drive corridor. By eliminating portions of the right-of-way that could otherwise be developed for public benefit (e.g., parking, landscaping, wider recreational trails, bench space, etc.), the implementation of the above-referenced Coastal Act and LCP policies and programs calling for improved parking and recreational access facilities becomes more difficult to achieve in the Live Oak beach area.

In the project area, where space is at a premium, where the seawalls are in fact being proposed to protect this area, and where such seawalls have public recreational access impacts that must be offset by the improvements in the right-of-way, it is incumbent on the project to maximize the use of the public right-of-way for public benefit by putting the right-of-way space to its highest and best public use, and it is required by the LCP and the Coastal Act. Although the proposed project includes provisions to return portions of the right-of-way to public use, significant areas would remain with private development as proposed. Leaving these areas in private use is inconsistent with the LCP and the Coastal Act policies cited above, and this approval is conditioned to return these areas to priority public uses, as follows.

Inland side of East Cliff Drive

With respect to the inland side of the project along the reconfigured East Cliff Drive, the proposed project does not reclaim the right-of-way for public use throughout the project area, ranging from a few feet up to about 15 feet. The County has indicated that it doesn't believe that this additional area needs to be put to public use. The Commission disagrees. Even if the area is only a few feet, that represents a few feet more that is available for public recreational access enhancements (a wider path, space for a bench, more landscaping, more setback from the bluff edge and thus less railings, etc.). Except for areas, if any, where no demonstrable public benefit would be gained from redevelopment of the public right-of-way, all public right-of-way needs to be used for public uses in this manner, and the roadway itself needs to be pushed to the maximum degree feasible inland to maximize the area available on the seaward side of the travel lane for such improvements. In locations where the road can’t be moved inland to the full right-of-way extent for some practical reason (like a required turning radius, etc.), then the right-of-way still needs to be put back to public use. In such a situation, even landscaping that can be used to tie together the inland side of the project to the rest of the project (as opposed to a variety of individual landscape areas for fronting each house) is more appropriate than leaving it in private use and with private improvements.

In addition, the proposed project does not include a curb and gutter or sidewalk or some other delineation of the public/private edge on the inland side of the road. This means that individual property owners will be able to define access/ingress etc. as they see fit, as opposed to ensuring that such

[69] Live Oak Access Strategy: Administrative Draft (January 1997)

incursions that impact public use are strictly limited. In order to define the public/private line and limit potential conflicts between public East Cliff Drive use and private ingress/egress use, a curb or equivalent (at the minimum) needs to be included on the inland side of the East Cliff Drive improvements. Such curb must strictly limit curb cuts and access driveways as much as possible, including by only allowing such access for sites where access cannot be gained in another way (i.e., most of the homes along this stretch of Eats Cliff gain access from the Avenues), including through minor modifications to allow access to be gained from the Avenues.

Accordingly, this approval is conditioned for reclamation of the inland side of the East Cliff Drive right-of-way for public purposes (including roadway, parking, landscaping, etc.) and for delineation of this inland demarcation point (see special condition 1).

Seaward side of East Cliff Drive

On the seaward side of East Cliff Drive, there are five areas of encroachment within the project area, two areas where fences at either end of the project area are located on County property (at Pleasure Point Park and at the Hook overlook), and three areas associated with each of the three residential structures located on the seaward side of East Cliff between 32nd Avenue and 41st Avenue: a residence near 36th Avenue (O'Neill residence), one between 38th Avenue and Larch Lane, and one immediately upcoast of the Hook overlook area. Each of the encroachments has its own set of issues.

With respect to the fence at Pleasure Point Park, this is a solid wood fence that extends to and over the bluff edge significantly blocking ocean and Pleasure Point surfing area views. The portion of the fence nearest the bluff (from the corner of the house seaward), must be replaced with a visually unobtrusive fence that does not obstruct the coastal view and the recreational value of the park area (see special condition 1).[70]

With respect to the fence at Hook, this is a chain link fence topped with barbed wire that extends along the downcoast edge of the current overlook area. This fence significantly detracts from the view and enjoyment of the Hook overlook, and eliminates coastal right-of-way area from being used for public uses. The portion of the fence nearest the bluff (from the corner of the house seaward), must be removed and replaced with a visually unobtrusive fence along the right-of-way line that does not obstruct the coastal view and the recreational value of the park area, including through adjusting landscaping and Hook area overlook amenities to best utilize this public space (see special condition 1).

With respect to the O'Neill residence, the encroachment area is mostly confined to the right-of-way area directly between the residence and East Cliff Drive. In this area, the proposed project would leave the existing landscaping (mostly cypress) in place, and would construct a split rail fence on the inland side of this landscaping; it is not clear what would happen to the existing low fence in this area. Provided the split rail fence continued to allow enjoyment of the cypress grove without impacting public views or use of the recreational trail, the physical development would appear consistent with maximizing public

[70] Only the fence seaward of the residence needs to be removed because the residence itself would bock the view if the fence were removed inland of the seaward corner of the residence.

recreational benefit (including maintaining significant landscaping that helps to define the aesthetic and ambiance of the trail area whose removal should be avoided). Accordingly, this approval is conditioned to ensure that the fence plan for this area doesn't adversely impact public recreational access (see special condition 1). That said, even as so conditioned, the proposed project would leave in place private development in the public right-of-way at this site. In this case, Mr. O'Neill owns land downcoast of his residence that would be used for the project as proposed. In other words, the County needs to use some of Mr. O'Neill's land for the proposed recreational trail improvements. Accordingly, the project represents an appropriate trade of public for private land in that respect.

With respect to the small residence located immediately at the bluff edge between 38th Avenue and Larch Lane, the fact set is a bit different. In this case, the right-of-way actually runs right through the middle of the small house (see Exhibit B). The property owner has also constructed chain link fence and has related residential development in the public right-of-way that detract from public recreational access and views. The County was unable to resolve this issue, and their proposed project is silent on resolving this anomaly. Although one way to resolve this issue would be to remove the portion of the residence that is located in the right-of-way, the pursuit of such an outcome would be difficult at best, with an uncertain resolution. At a minimum, the existing chain link fence detracts from recreational use and enjoyment and must be replaced. This can be achieved at this site by removing the fence in the right-of-way, and constructing a visually unobtrusive fence (e.g., cedar split rail akin to other fencing in the area) along the right-of-way line up and downcoast of the residence. This will result in the existing cypress being on the public side of the fence line, better enhancing the public right-of-way, and will reduce visual impacts (see also visual findings that follow). See special condition 1. Even so, the issue of private encroachment remains. In this case, unlike the O'Neill case, there isn't a project-related trade-off available. In order to address this inconsistency, this approval is conditioned for a plan for resolving the right-of-way issue at this location either by the County returning the area to public use and enjoyment, or otherwise offsetting its impact (e.g., by renting the right-of-way space to the property owner, etc.) within two years of project completion (one year for plan submittal, and a second year for plan implementation) (see special condition 2).[71]

With respect to the residence upcoast of the Hook, the encroachment area runs along the entire frontage, and more so than either of the previous two residential encroachments, includes development that detracts from the public recreational area and that directly blocks views. This is because the fence is not see-through here, and there exists a series of structures between the public road/trail and the ocean, including the residence and accessory structures. As with the previous site, the proposed project is silent on resolving this issue. However, because of the encroachment, the public space is severely compromised at this location, and the improvements are funneled into a narrower space that detracts from their utility and value. The Commission is aware that the property owner at this site is pursuing a remodeling project that would resolve these encroachment issues, but the project remains in the conceptual stage. That said, and for this project, it is important that all is done to address this problem at

[71] The offsetting impact option is appropriate in this case given that there is essentially zero space on the very small property within which to move the very small residence. In other words, there is not way that the residence could be moved outside of the right-of-way, and this complicates potential resolution scenarios.

this location as part of this project now. Accordingly, this approval is conditioned to remove the fence in the right-of-way and to replace it on the seaward side of the existing vegetation and cypress trees with a visually unobtrusive fence as a short-term solution (see special condition 1). Such a project revision will at least open up the public space, and include the vegetation and trees in the public right-of-way on the public side of the fence line, better enhancing public recreational (and view) access. In the longer term, the remodel project may resolve issues and allow the remainder of the public right-of-way to be returned to public uses, but it is unknown at this time when that might occur. Accordingly, this approval is conditioned for a plan within one year of project completion for resolving the right-of-way issue at this location either by the County returning the area to public use and enjoyment within two years, or evidence that the property owner intends to do so as part of their remodel project where such remodel occurs within three years of project completion (or the County would again be responsible) (see special condition 2).

2. Parking

Live Oak Beach Area Parking Background

Live Oak beachgoers traveling by automobile have long found parking spaces to be a scarce commodity in the beach area. Those beachgoers in need of parking spaces include Live Oak residents who do not live directly next to the beach, Live Oak residents who choose to drive for other reasons (e.g., those traveling with small children or with beach equipment), other Santa Cruz County residents traveling to Live Oak beaches, and visitors from out of the area. Further, given that many beach area parcels lack sufficient off-street parking, beach area residents also require beach area parking spaces. With over one million persons each year utilizing Live Oak beaches and jockeying for a limited number of parking spaces, there is an opportunity to enhance both resident and visitor enjoyment of the beach area through parking improvements.[72]

Given that the model of a large parking facility directly associated with a beach area (e.g., as is often found at State Parks) is not present in Live Oak, beach parking supply has long been an issue in Live Oak. In fact, the original LCP parking assessments from the late 1970's identified the Live Oak beach area as having the "most severe parking deficiencies" in Santa Cruz County with an estimated parking deficit of 745 parking spaces.[73] Unfortunately, in the time since the LCP's parking assessment, three informal beach area parking lots that had served as primary parking areas have been lost to private development and most of a fourth to a storm event.[74] In tandem with the lack of new parking facilities, the continuing popularity of Live Oak beaches suggests the probability of an increased parking deficit today.

Formal beach parking areas in Live Oak are confined to the few scattered parking lots that currently

[72] LUP Coastal Recreation Programs 7.7.a and 7.7.b agree with this assessment specifically citing the need to "increase parking opportunities to serve visitors to the Live Oak coastline" and to "improve existing parking areas."

[73] As described in the LCP's public access working paper and the LCP's shoreline access assessment.

[74] Parking lots along East Cliff Drive at 14th and 21st Avenues have been otherwise developed, another at 18th Avenue has been closed to the public, and the Twin Lakes State Beach parking lot was mostly destroyed during 1979-80 winter storms.

supply about 200 parking spaces. Over one-half of these parking lot spaces are found in private, pay parking lots inland from Twin Lakes State Beach on 7th Avenue that allow for some weekend beach use with the other half in public lots at Moran Lake (40 spaces) and at 41st Avenue (54 spaces). Given that a parking fee is charged during summer weekend and holidays at both the private lots and the Moran Lake parking lot, only the parking lot at 41st Avenue and East Cliff Drive currently provides free public parking on a year-round basis.

Although the scattered parking lots provide a valuable service in the beach area, the bulk of the beach parking supply is provided by on-street parking spaces. In particular, given that there are no beach parking lots from Schwann Lake through to Moran Lake, on-street parking is the only option for the high use beach areas of Black's Point, Sunny Cove and Santa Maria Cliffs/26th Avenue Beaches. Likewise, Pleasure Point area streets provide nearly all parking for the offshore surf recreational area. As a result, Live Oak beach neighborhood streets become the main parking 'facility' when beach area residents, other Live Oak residents, other Santa Cruz County residents, and visitors to the area look for beach parking. However, these parking seekers are challenged to find legal and safe parking arrangements for their vehicles.

Those seeking on-street parking spaces near to the Live Oak beaches must contend with an escalating series of issues, each of which removes a portion of the public parking space supply. First, given that the streets between East Cliff Drive and the ocean are narrowed to an average of 35 feet (see encroachments section above), there is limited space available to accommodate both parked cars and through traffic lanes. Second, the lack of a formal street edge (e.g., curbs and gutters) allows individual property owners to define the edge of the street in ways which reduce available parking spaces (e.g., with planters, pull-in parking areas, etc.). Third, an inconsistently applied traffic lane striping program (i.e., only some streets are striped and only some of these on both sides of the street), removes beach area parking by defining a space along the street that is too narrow to park a car. Fourth, 'no parking' signs, both those posted by private citizens and by County Public Works, further reduce available parking spaces. And finally, where on-street parking spaces are still available on Live Oak beach area streets, a Live Oak Parking Program (LOPP) permit fee is charged in many areas during peak user times of the year.[75]

In general, resident-visitor conflict can be alleviated and public enjoyment of the beach area enhanced through parking improvements. In terms of beach parking lots, though opportunities for additional lots are scarce due to the mostly developed nature of the beach area, there are a few available locations along East Cliff Drive that could be pursued to relieve parking pressure in the beach neighborhoods (e.g., along Coastview Drive at Corcoran Lagoon). It is more likely, however, given the costs of land

[75] The LOPP began in the summer of 1981 as a means to relieve traffic and parking congestion in the Live Oak beach neighborhoods and it has been in operation every summer weekend and holiday since. Though overall congestion remains, the LOPP fee helps to pay for enforcement operators in the beach area who have contributed to more orderly parking in the beach area. However, by charging a beach parking fee for the use of public streets, the LOPP has also decreased parking opportunities for those who do not live within the LOPP zone (i.e., other Live Oak residents, other Santa Cruz County residents, and other visitors to the beach area), particularly those of low income. Though only assessed in the Live Oak beach area, the parking fees and any fines are not directly reinvested in Live Oak for parking improvements; rather, these monies go to the County general fund.

acquisition and development for parking lots, that on-street parking improvements are the best hope for addressing parking concerns in the Live Oak beach area. It is for this reason that major street improvement projects such as the subject project must be critically examined for their ability to address LCP and Coastal Act public access parking concerns.

Project Area Parking

The project includes formalization of 27 parking spaces (see Exhibit C).[76] This represents a significant improvement over the informal nature of parking currently along East Cliff Drive, where much of the parking is not available to the public due to aforementioned encroachments, signs, and striping. However, it is clear that there is additional space available within which to site parking, particularly in the area downcoast of the O'Neill residence (including the spaces recently removed by the County). However, although there is a clear need for parking supply in this area, that need must also be balanced with the project objective of creating recreational use area not dominated by cars. In this case, that balance can be appropriately achieved in multiple ways.

First, part of the reason that a reduced number of parking spaces can be appropriate in relation to this section of East Cliff Drive is because there exists a free public parking lot at the Hook that provides 54 spaces. Provided these spaces remain free and available to the public, then that supply can help offset the need for a sheer number of parking places to be included along East Cliff Drive. This approval is conditioned to ensure that the Hook parking lot stays free and publicly available (see special condition 3).

Second, East Cliff Drive in the project area is not part of the LOPP. Provided this remains the case, the LOPP will not limit parking in the project area. This approval is conditioned to ensure that the LOPP is not extended to the project area (see special condition 4).

Third, there may be an additional few spaces that could be created from the reclamation of the right-of-way (see above).

And finally, the parking spaces proposed by the County (as revised June 26, 2007) should provide formalization of parking that should well serve the public at this improved accessway. The new handicapped spots near 32nd Avenue are appropriately sited in this regard, and the parking spaces should otherwise serve to provide parking without making the project appear car-centric or significantly impacting views.

That said, the County also proposes restrictions on parking to limit certain spaces (the 5 spaces downcoast of the O'Neill residence, and the 3 spaces opposite Pleasure Point Park) to no parking from 11pm to 5am as a response to overnight parking concerns. Although the Commission is sympathetic to such concerns, the time period identified is overly broad to achieve the stated goal. In fact, many coastal visitors park and stroll at nighttime, and many surfers surf during darkness hours on fuller moons. It is

[76] Five spaces were removed from the project by the Board in the time since the March 20, 2007 action on their CDP; see page 40 of Exhibit C.

not appropriate to limit the parking areas in this way. Accordingly, this is approval conditioned to allow parking to be limited only from 2am to 4am in these eight spaces, and nowhere else (see special condition 1).

3. Other Parkway Issues

The project includes a series design issues that limit its overall public recreational access value, and thus the ability of the Commission to find it consistent with the above-cited LCP and Coastal Act policies, as well as to rely on the project benefits to offset public recreational access impacts associated with the seawalls. A series of design modifications are required to be able to find the project consistent as follows.

DG Pathway

The proposed decomposed granite pathway is discontinuous and significantly narrowed in places (see Exhibit B). There would appear to be ample space to maintain its continuity, and the overall recreational trail value depends on it. Accordingly, this is approval conditioned to ensure that the decomposed granite trail segment is continuous and maintains a minimum 8-foot width (see special condition 1).

DG and Paved Path Separation

The proposed decomposed granite and paved components of the recreational trail system are directly adjacent to one another. Some horizontal separation (with landscaping, etc.) would better address potential user conflicts, even if such separation is only provided intermittently as space allows. Accordingly, to the extent there is space, including due to reclamation of the full right-of-way, this approval is conditioned for providing as much separation as possible while also retaining as much area for recreational uses and structures, like the path (see special condition 1).

Larch Lane Sidewalk Integration

It is not clear from the proposed project plans the manner in which the decomposed granite path would integrate with the existing sidewalk at the existing County seawall near Larch Lane. From the plans, it appears that the pedestrian path in this area would be 8 feet wide and retained as concrete (see Exhibit B). However, this sidewalk is not currently 8 feet wide, and it is not clear how this transition would work. It will be important for this transition to be as seamless as possible, whether it involves taking out the sidewalk and replacing it with decomposed granite, or ensuring that the width is extended to 8 feet to match the pedestrian path. See special condition 1.

Rolled Curb

The project would include a rolled (or “battered”) curb along East Cliff Drive (see Exhibit B). A rolled curb along the recreational pathway would be more dangerous to recreational trail users than would be a standard curb because vehicles would more easily roll onto the recreational trail. This concern is compounded under an alternative that keeps traffic one-way in the eastern direction (see also below) because many motorists are checking the surf conditions and perhaps more likely to roll onto the curb in this sense. Accordingly, this is approval conditioned to replace the rolled curb with a standard curb (see

special condition 1).[77]

Bike Lane

The project doesn't appear to include a bike lane (see Exhibit B). Although slower moving bicyclists will be able to travel in either direction on the paved path (and upcoast cyclists will be forced to use the path with the one way street and lack of a contra-flow bike lane), it is important that all types of access be maximized, including bicycle access. At 16 feet in width, the travel lane provides ample space for a bike lane and a vehicular lane, and this approval is conditioned for same. See special condition 1.

Up and Downcoast Connections

At either end of the Parkway (at 32nd and 41st Avenues), recreational trail users – primarily bicyclists – are required to traverse East Cliff Drive. The proposed project recognizes this, but the proposed "bikes must cross" signs are not adequate to address this concern. The crossing points at both ends must be clearly demarcated on the pavement in some way (different pavement markings, striping, coloring, etc.) and run more or less in the same general direction as the recreational trail as much as possible (i.e., angled to the road as opposed to a perpendicular crossing), and stop signs must be included that would require traffic to stop at each such crossing. See special condition 1.

Raised Crosswalks

The project area is a significant recreational attraction, and this will increase with the project. As such, there will be more people moving about and across East Cliff at this location than might be the case for a more standard section of roadway. Accordingly, it is important that traffic speeds be kept low to ensure safety. To ensure that this is the case, and to provide increased prominence to the crosswalk areas in the same measure, the crosswalks in the project area need to be raised crosswalks that can also act to slow speeds. See special condition 1.

Private Property Along Seawall

There exists one intervening portion of private property within the seawall area just upcoast of the O'Neill residence (see Exhibit B). A portion of this is blufftop, and the majority is bluff area. This property raises questions to the extent a completed seawall might somehow lend credence to an argument that the blufftop portion of this property were somehow developable. Although the Commission does not believe that that would be the appropriate way to understand such a property if a seawall were to be constructed, this does raise a concern to the extent such an argument could gain credence and lead to development that would result in coastal resource impacts. The County indicates that they would acquire this property prior to commencing construction. Provided the County does that, then that would alleviate the Commission's concern in that respect. This approval is conditioned to ensure that the subject property is acquired prior to commencing construction (see special condition 5).

[77] The County indicates that the rolled curb is to satisfy fire engine access. However, not only will the travel lane be 16 feet wide and capable of handling fire engines, but a fire truck can easily drive up over a standard curb in the event the 16 foot width is not enough in any particular case. It makes more sense to have the permanent improvement be appropriate for the site than for the emergency need to drive a design that is unnecessary given the emergency need can be satisfied with a standard curb.

One-way East Cliff Drive

There has long been discussion that the direction of the one-way East Cliff Dive should be reversed. There are those who believe that the westerly direction (upcoast) would be better than the current easterly direction (downcoast) as it allows for more direct views of the ocean and surf without the need for driver's to crane their necks to see it. This also means less potential for recreational conflict because drivers can better mind the road when they are looking forward. The County indicates that this would lead to more traffic and more "looping" traffic around the project area (see Exhibit E). Although intuitively it would seem that there would be traffic associated with looping the project area no matter which direction the traffic was directed (the difference would be from which direction the inland loop started and thus corresponding traffic increased), and it is clear that a one-way traffic pattern results in some traffic increases as compared to a two-way pattern no matter what, the direction of the road traffic is not critical to a finding of LCP and Coastal Act consistency. It is clear that the project could be made to go either direction, but the County prefers it to be easterly, and the Commission agrees. There are benefits and impacts in either direction.

D. Access Impacts During Construction

The project would involve the use of large equipment that would occupy East Cliff Drive and the beach and water area fronting the bluffs between 32nd and 36th Avenues and at 41st Avenue, and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreational experience during the expected half year of construction. Any future maintenance episodes would lead to similar construction impacts, but to less expected degrees. Although these construction impacts can be minimized by appropriate construction controls, including as proposed by the County and as modified to include typical construction parameters applied by the Commission (see special conditions 6 and 7), they cannot be eliminated. As indicated, the Pleasure Point area is an extremely popular beach, bluff, and surfing recreational area and project construction will not only remove beach area from being potentially used, but it will negatively impact the beach and shoreline recreational experience by introducing construction (including large equipment, noise, etc), into a prime recreational use area. The County will restore all disturbed recreational areas following construction, but cleaning up one's construction mess does not compensate for the negative public access impacts over the duration of construction. In recent cases, the Commission has required compensatory mitigation for this impact.[78]

Construction impacts will add to the same types of access impacts identified above, and will also lead to loss of blufftop access during construction inconsistent with the provisions of Sections 30210, 30211, 30213, 30220, 30221, 30223, 30240(b), and 30253(5) of the Coastal Act to protect (and mitigate unavoidable impacts to) beach, surfing, and blufftop recreational access, and, by extension, the recreational destination that is Pleasure Point. Fortunately, these construction impacts can be mitigated by the enhancements to blufftop recreational access associated with the project, and as the project has been modified through the approval conditions designed to enhance its recreational and use value (see parkway discussion above). As so conditioned, public recreational access is maximized in the parkway

[78] For example, in the Podesto seawall case (3-02-107, approved August 6, 2003), a 250 foot long seawall about half the height of this one at Manresa State Beach, the permittee was required to fund $20,000 worth of public access repairs to offset construction impacts. In that case, the construction time frame was half that expected here.

project as directed by the LCP and the Coastal Act, and the construction impacts can be mitigated by the access improvements of the parkway project.

E. Water Quality and Runoff

As previously described, the proposed parkway project includes some consolidation of the East Cliff Drive drainage system (13 existing outfalls going down to 7 outfalls) and some additional engineered treatment devices (for 5 out of the 7 outfalls). At a minimum, and given that the receiving water body offshore is part of both a national marine sanctuary and part of a significant offshore recreational use area, all outfalls need to include filtration and treatment to meet the LCP requirements. The approved parkway project leaves two such outfalls unfiltered/treated. In addition, the filtration units approved, CDS units (or equivalent), are better at protecting water quality than standard slit and grease traps or more basic drop inlets, but there appears to be adequate space to supplement and/or replace such units with potentially more effective natural filtration BMPs in some areas (e.g., grassy swales, wet ponds, etc.) and/or with more effective treatment/filtration units and/or by adding treatment capability through media inserts in the CDS units themselves (as has been done in other County road improvement projects) to further protect the receiving water body offshore to the extent required by the LCP. It is clear that the approved parkway project has not done everything feasible and possible for a project of this type and size to protect coastal water quality, and by extension public access in the area associated with it, as required by the LCP and the Coastal Act.

The lack of adequate water quality filtration and treatment will negatively impact surfing and beach recreational use inconsistent with the provisions of Sections 30210, 30211, 30213, 30220, 30221, 30223, 30240(b), and 30253(5) of the Coastal Act to protect (and mitigate unavoidable impacts to) beach and surfing recreational access, and, by extension, the recreational destination that is Pleasure Point. There are ways of addressing these water quality issues that could be used to achieve Coastal Act consistency (see ESHA and Coastal Waters finding for details). This impact, and ways of addressing it, are more fully described in the Coastal Waters/Water Quality finding below (that is incorporated here by reference).

F. Access and Recreation Conclusion

The project presents a difficult decision, for which there are clearly public access trade-offs. If the seawall is constructed, then the East Cliff Drive blufftop recreational area will protected, but beach access will be incrementally diminished over some amount of time. If the seawall is not constructed, the East Cliff Drive blufftop recreational area will be incrementally lost in the near-term, but beach access would be unaffected by a seawall here during that time. At some point in the future (provided the regulatory framework is the same as exists today), armoring would be allowed to protect either what remains of East Cliff Drive and/or the inland residences, as required by the Coastal Act. In that scenario, and at that time in the future, similar types of armoring impacts identified in these findings (depending on the type of armoring and the specifics of the project) would be expected to occur (and continue from that point on into the long-term).

It is clear that there will be impacts to beach, surfing, and blufftop recreational access that are not

adequately mitigated by project design or otherwise. The Commission therefore concludes that the proposed project is inconsistent with the provisions of Sections 30210, 30211, 30213, 30220, 30221, 30223, 30240(b), and 30253(5) of the Coastal Act to protect (and mitigate unavoidable impacts to) beach, surfing, and blufftop recreational access, and, by extension, the recreational destination that is Pleasure Point. However, the Commission has identified appropriate project modifications designed to correct these inconsistencies, and designed to ensure that the blufftop recreational access project maximizes public recreational use and enjoyment value as a means to offset some of the impacts due to the seawalls. As conditioned, the Commission finds the project consistent with the cited LCP and Coastal Act public access and recreation policies.

C. Scenic Resources and Community Character

1. Applicable Policies

Coastal Act Section 30251 states:

> ***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.*

Coastal Act Section 30240(b), previously cited, also protects the aesthetics of recreation areas such as those involved in this application. Section 30240(b) states:

> ***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.*

Finally, Coastal Act Section 30253(5) protects community character. Section 30253(5) states:

> *New development shall where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

With respect to the parkway components (and as guidance within the Commission's jurisdiction), applicable LCP viewshed and community character policies were previously cited and are not re-cited here (see Substantial Issue Determination).

2. Analysis of Consistency with Applicable Policies

As previously described, the Pleasure Point project area is in a special coastal community that is a popular visitor destination point, and it is also in a significant public viewshed. The LCP and the Coastal Act clearly protects these resources.

A. Background

The existing public viewshed and landform at the project site is currently degraded and aesthetically cluttered. This is due to the piles of rip-rap and rubble on the beach, the abandoned concrete restroom along the bluffs, the exposed and cantilevered drain pipes, the temporary safety barriers at the blufftop edge, and the configuration of East Cliff Drive atop the bluff where portions of it have eroded away, plastic bollards define recreational areas, bare soils and erosion rills the edge of the bluff, and traffic barriers extend along the bluff (and indeed hang over it in some locations). See photos of the project area in Exhibit A.

In spite of this, the blufftop area provides spectacular views of the ocean and, despite the many unnatural features, the majority of the bluff area remains in its natural form and contributes to the character of the area.

B. Impacts

The proposed project will remove the abandoned restroom, cover the existing bluffs with sculpted concrete at two locations, and remove the rubble and rip-rap strewn across the beach (see also preceding findings). The parkway will introduce a decidedly different visual treatment to the area. Although this will help improve the viewshed in part (e.g., removal of rip-rap and rubble,[79] removal of barricades, etc.), and although the seawalls would be made to mimic natural bluffs, it would still introduce a concrete and artificial structure into the significant public recreational viewshed, replacing the natural landform with an artificial one. Public views from the beach, from offshore, and from East Cliff Drive would be negatively affected, and the current Pleasure Point character would be forever altered as discussed below.

1. Rip-Rap

In addition to the associated access issues discussed in the preceding finding, the rip-rap proposed to front the seawall at 41st Avenue and transition to the O'Neill property will also detract from the public viewshed. Nothing has been proposed to camouflage or otherwise mitigate for this visual degradation.[80] This is inconsistent with the above LCP and Coastal Act visual policies. However, as detailed in the previous access finding, the rip-rap can be minimized at the transition and removed at the Hook. Thus, this prior series of conditions to implement these changes are also required to find LCP and Coastal Act

[79] Ibid. The status of these materials is unclear, and impacts whether they can be used as a mitigation tool.

[80] For example, in many revetment projects in coastal Live Oak and elsewhere, the Commission requires that the upper portions of these structures are completely screened from view over the life of the revetment by a dense cascading screen of native bluff plants. In some public project cases, the Commission has additionally required that the base of such structures also be completely screened and covered by sand, and the sand reestablished to screen the revetment should it be washed out in a storm (e.g., in the City of Carmel).

visual policy consistency.

2. Surface Treatment

The County would sculpt, color, and texture the concrete facing of the proposed seawall to approximate natural bluffs (see photo of completed emergency wall and "before" shot in Exhibit A, and photo simulation of the bluffs post-project on page 3 of Exhibit B). If done correctly, such sculpting can help to camouflage large slabs of concrete, although even then, there may be a significant change to the current natural aesthetic; when done poorly, however, it just reinforces the unnatural element present in the back beach area. In this case, the project area includes representative examples of the surface treatment that would be applied. It is clear that the County takes seriously the concept that the walls be made to look as natural as possible based on the example provided by the completed emergency walls. Provided all walls are made to mimic these walls, and to mimic the natural landform in bluff undulations, protrusions, color, and texture, the seawalls can be made to minimize their visual impact to the degree feasible. Landscaping designed to cascade over the top of the seawalls, screening the tops of them at least partially from view, and providing a more natural edge to the top of the wall as seen from above and below, can also help in this regard. See special condition 1.

Even so, the seawalls will lead to a major change inasmuch as even if the seawalls are made to look as natural as possible, they will not appear totally natural (see photosimulation in Exhibit B). This impact can be mitigated by project modifications as discussed below.

3. Stairways

The stairway at the Hook needs to be inset into the seawall like the other stairways to achieve access and recreation and hazards consistency (see previous findings and conditions). It is also required to maintain LCP and Coastal Act visual consistency and minimize visual impacts.

The stairways are meant to be integral to the seawall, and to mimic the natural bluff. However, as seen from the visual simulations, these projections include very linear edges that diminish from the intended bluff-like illusion. This impact can be reduced by ensuring that the edges of these protruding stairways (as seen from offshore and the beach) appear more natural (i.e., non-linear and random), and are meant to approximate natural bluff forms. See special condition 1.

4. Blufftop Railing

The proposed project would include a very straight-line railing atop the bluff. The County indicates that these would be wood where possible, and that low-growing vegetation or setbacks should be used in place of railings where possible (i.e., where it wouldn't compromise safety). The Commission agrees that these types of measures would be appropriate. However, such measures do not compensate for the straight-line unnatural look of the blufftop rail itself (see, for example, visual simulation on page 3 of Exhibit B), and the mix of railings proposed (including tall split rail and metal rod) will lead to visual incoherence. The prominence of the railings as seen from East Cliff Drive and from the beach/surfing area is antithetical to the intent of camouflaging the seawall structure to mimic a bluff inasmuch as natural bluffs do not typically include such rigidly linear components.

In order to ensure that the railing components do not detract from the viewshed, all railings must be minimized to the degree feasible (including using landscape areas to avoid the need for railings where feasible), be made of wood to match the natural aesthetic as much as possible (e.g., low split rail to match existing split rail in the project area), and must be from the same design theme throughout the project area (see special condition 1)

5. Storm Drain Outlet Pipes and Weep Holes

As previously described, the project includes 7 outfalls. Although the County has consolidated these outfalls to the maximum degree feasible, these drain pipes would detract from the scenic view here. The seawall would also include a series of "weep" holes through which water collected in the area behind the seawall would drain. These drain outlets would be staggered along the wall.

Even in successfully camouflaged walls, drain pipes and weep holes detract from the illusion and lessen the value of the camouflage mitigation.[81] In addition, over time, as drainage from the weep holes begins to stain the concrete at the outlets in a similar equidistant pattern, such unnatural appearance is only heightened.

Such impacts would be inconsistent with the LCP and Coastal Act visual resource policies cited above. However, there are several ways of addressing these issues that could be used to achieve Coastal Act consistency. Provided the weep holes are randomly placed, and the weep holes and drain pipe outlets are camouflaged,[82] the visual impact can be offset. The County has been successful with camouflaging drain pipes with the existing emergency walls. See special condition 1.

6. Other Issues

The project includes a series design issues that detract from the overall utility and value of the project in a visual and community character sense, and thus the ability of the Commission to find it consistent with the above-cited LCP and Coastal Act policies, as well as to rely on the project to offset visual impacts associated with the seawalls. A series of design modifications are required to be able to find the project consistent as follows.

Non-Natives and Invasive Species

The proposed project would leave existing non-natives and invasive landscape species in place in the project area. These detract from the aesthetics of the project because they are inconsistent with the look

[81] For example, the seacave plug at Cowell Beach in the City of Santa Cruz upcoast authorized by the Commission in 2002. Although the camouflaging of the surface texture to approximate a natural bluff was successful, the weep holes and linear footing detract from the ability of the camouflage to hide the unnatural concrete fill.

[82] Including by prohibiting cantilevered pipes, directing the outlet pipes to the terrace deposit/Purisima contact point, and by partially encasing the pipe outlet in sculpted concrete so that it is not visible from above or below. In addition by allowing the drainage to exit at the "bench" contact, energy dissipation is not necessary and thus rip-rap (and its attendant impact on the viewshed) can be eliminated. Where some amount of energy dissipation would be necessary due to flow volume, such energy dissipation devices must themselves be hidden behind and/or in the sculpted concrete in the same manner as the outlet pipe itself.

of natural bluffs and inconsistent with the types of plant materials found there. This is perhaps most apparent with the prominent palm trees in Pleasure Point Park and the iceplant in the project area between the O'Neill residence and the Hook. It is clear that these species need to be removed from the project area and replaced with suitable natives (see special condition 1). In the case of the palm trees, this will mean taking out the existing tall trees. In this case, such an action is warranted given the scope of this public improvement project and the fact that it will set the tone not only for the Pleasure Point viewshed but other public works projects that follow.

Recreational Amenities

Consideration should be given to making all benches, tables, and related structures in the recreational use area out of wood to be able to blend effectively into the viewshed (see special condition 1). The existing metal and plastic benches and tables in this area do not meet that criteria, and this project is an opportunity to improve the visual character of the area.

Signs and Striping

The proposed project includes what appears to be excessive signs (see Exhibit B), and lacks definition for where striping would be placed. To avoid sign clutter, signs need to be minimized to the maximum degree possible, and consolidated to limit the number of poles etc. Street striping, too, must be limited to that that doesn't detract from the overall viewshed (although there is a balance inasmuch as street striping can avoid the need for signs, and thus help avoid visual pollution in some cases). See special condition 1.

Existing Seawall at Restroom

The upper bluff seawall constructed at the location of the restroom/stairway that is to be replaced with the proposed project is more vertical and less contoured than the other existing emergency walls. As a result, this section of wall blends less readily into the viewshed than does the others. It is clear that to better blend, this portion of the seawall needs to include some additional surfacing and articulation, including by providing less steep gradient at its base. See special condition 1.

Retaining Wall Near 38th Avenue

The retaining wall near 38th Avenue must be completely screened from public view (see special condition 1).

Decomposed Granite

The County indicates that the decomposed granite paths would be "stabilized decomposed granite paving" (see Exhibit B). To be clear, this term can mean many things to different people. In fact, the County has uses a stabilized decomposed granite in some road improvement projects that does not appear to be decomposed granite at all, and more looks like paving (e.g., along Lake/5th Avenue near the Santa Cruz Harbor). The Commission intends that the decomposed granite paths are just that - decomposed granite. The paths should not emulate the paving style found along Lake/5th Avenue, but

rather should appear as traditional decomposed granite paths.[83] See special condition 1.

Overhead Utility Lines

The existing overhead utility lines in the project area significantly detract from the public view. There are approximately 17 utility poles in the project area with lines strung from one to the next and down the avenues, and with lights on some poles. It is incumbent on a public project of this magnitude with the types of impacts associated with it to do all it can to enhance this viewshed, including as a means to offset visual impacts as described above. There is no doubt that removing these utility poles and undergrounding these utility lines would improve the viewshed, and there is no doubt that if it is feasible it must be required to offset the introduction of the monolithic wall and the finished facade of the project into the Pleasure Point area (see also community character finding below). Project area lighting must be limited to that that is necessary for public safety purposes, and lamp poles and lights must be sited and designed to blend into the project aesthetic. See special condition 1.

7. Community Character

There has been concerns raised that the seawall and parkway projects will introduce a more "finished" facade into the Pleasure Point area that will detract from Pleasure Point's informal and eclectic charm. This is not the first time that this concern has been raised regarding major street improvement projects in the Live Oak beach area and Pleasure Point.[84] In general, the trend in Live Oak has been towards fairly standard and linear engineered streetscape designs, with which the Commission, too, has raised concerns.[85]

The project in this case would result in a more formal appearance to the East Cliff Drive corridor, both because of the seawall and the parkway improvements. The way that the seawall would be sculpted would help to offset this impact, although there are issues with it as discussed above. These impacts can be offset through the project modifications necessary for visual conformance just described. In terms of the parkway, the more formal character that would be established through the parkway improvements is

[83] Note that the Commission is aware of projects with decomposed granite paths that have included stabilizing agents in the decomposed granite, but the paths still look like traditional decomposed granite paths (e.g., Scenic Road in Carmel).

[84] For example, the County's Pleasure Point area road improvement project that was approved by the Commission on appeal in 2001 (A-3-SCO-00-076) involving portions of 30th, 32nd, 33rd Avenues and East Cliff Drive (roughly just upcoast of Pleasure Point Park).

[85] Note that in A-3-SCO-00-076, the Commission identified the following as more appropriate streetscape designs to be pursued in the Live Oak beach area and Pleasure Point: "informal sidewalks made of pervious materials (e.g., decomposed granite) meandering informally and curvilinearly through wider landscaped strips on one or both sides of street (separated by landscaping) to accomplish a more informal ambiance; a meandering curvilinear roadway prism (i.e., within the right-of-way) that serves to again soften the appearance of the road improvements consistent with the community aesthetic as well as to calm traffic and maintain a neighborhood scale to the improvements; diagonal parking bays with street trees and landscaped bulbs-outs at uneven intervals to increase parking supply and to screen/disguise such parking at the same time; filter strips, grassy swales, and other "soft" treatment and filtration best management practices to cleanse runoff from vehicular surfaces as opposed to relying upon end-of-the-pipe engineering solutions; benches within landscape strips to provide a neighborhood scale and feel to the street; decorative street lighting; bike lanes; undergrounding of overhead utilities; and clear signage directing users to the beach, to other recreational use areas, and to parking. Such design concepts would be more in keeping with the community character, scale, and aesthetic than would be the more rigid designs proposed in which the street would be defined by a straight-line curb and gutter, a straight-line concrete sidewalk connected to the curb and gutter, standard parallel parking along the street, and end-of-the-pipe water quality control using silt and grease traps only."

unlike the existing character of the Pleasure Point area. That said, the East Cliff Drive area is certainly in need of improvements. The key for the County in the project will be to ensure that the improvements are kept as natural and "soft" as possible, keeping true to the Pleasure Point aesthetic as much as possible, while providing for the range of improvements necessary.

8. Construction Impacts

As with access and recreation construction impacts, the project would introduce large construction equipment and activities that are antithetical to shoreline viewshed qualities during construction. The same would apply to any future maintenance episodes, although their duration would be expected to be less than the initial construction. Although these construction impacts can be minimized by appropriate construction controls as proposed and as conditioned (see previous findings), they cannot be eliminated. Construction impacts will add to the same types of visual impacts identified above. These construction impacts can be offset by the visual impact modifications required by condition and discussed previously in this finding.

C. Visual Resources, Landform Alteration, & Community Character Conclusion

It is clear that there will be impacts to the Pleasure Point viewshed aesthetic that are not adequately mitigated by project design or otherwise. The Commission therefore concludes that the proposed project is inconsistent with the provisions the LCP and the Coastal Act to protect, enhance, and mitigate unavoidable impacts to the public viewshed, natural landforms, and the special community character of Pleasure Point. However, the Commission has identified appropriate project modifications designed to correct these inconsistencies, and designed to ensure that the blufftop recreational access project maximizes public viewshed enhancement and the character of Pleasure Point as a means to offset some of the impacts due to the seawalls. As conditioned, the Commission finds the project consistent with the cited LCP and Coastal Act public viewshed, landform alteration, and community character policies.

D. Coastal Waters/Water Quality

1. Applicable Policies

Coastal Act Sections 30230 and 30231 provide:

> ***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.

Section 30233(a) states, in 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:*

With respect to the parkway components (and as guidance within the Commission's jurisdiction), applicable LCP water quality policies were previously cited and are not re-cited here (see Substantial Issue Determination).

2. Analysis of Consistency with Applicable Policies

As previously described, the Pleasure Point surfing area is extremely popular. It is also part of the Monterey National Marine Sanctuary. The Coastal Act clearly protects these resources.

Water Quality

As previously described, 5 out of the 7 project outfalls would include filtration and none would include treatment (e.g., use of media to fix pollutants in runoff). The runoff here would discharge into the Sanctuary, 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. As previously detailed, Pleasure Point attracts surfers from far and wide to tackle the consistent line of surf wrapping around the headland and heading downcoast to Capitola here. As such, the Commission recognizes the marine and recreational resources involved with the proposed project as sensitive coastal resources that are of high state and federal importance.

Runoff, even filtered but untreated runoff, that flows directly to the Monterey Bay could negatively impact marine and recreational resources and water quality by contributing additional urban contaminants to the recreational surfing area there. Urban runoff is known to carry a wide range of pollutants including nutrients, sediments, trash and debris, heavy metals, pathogens, petroleum hydrocarbons, and synthetic organics such as pesticides. Urban runoff can also alter the physical, chemical, and biological characteristics of water bodies to the detriment of aquatic and terrestrial organisms.[86] Such impacts would be at the expense of two of the state and nation's great treasures, the

[86] Pollutants of concern found in urban runoff include, but are not limited to: sediments; nutrients (nitrogen, phosphorous, etc.); pathogens (bacteria, viruses, etc.); oxygen demanding substances (plant debris, animal wastes, etc.); petroleum hydrocarbons (oil, grease, solvents, etc.); heavy metals (lead, zinc, cadmium, copper, etc.); toxic pollutants; floatables (litter, yard wastes, etc.); synthetic organics (pesticides, herbicides, PCBs, etc.); and physical changed parameters (freshwater, salinity, temperature, dissolved oxygen).

Monterey Bay and the Pleasure Point surfing area. Such impacts raise questions of consistency with the above-referenced LCP and Coastal Act policies protecting these resources.

The project in front of the Commission is a major public works project involving a multi-million dollar expenditure of funds. It is generally incumbent upon public projects to do more for the public good, and it is particularly incumbent when such a huge expenditure of public finds is involved. In other words, it is incumbent upon the public agencies involved to fully explore options for not just meeting minimum requirements, but rather going beyond them to enhance public recreational resources and improve the public good in the long term. Opportunities to correct inadequate water quality management systems, such as that provided by this project, need to be pursued, just as non-conforming structures are required to become conforming upon redevelopment. This project will necessarily involve reconstruction of drainage facilities. Although the County's proposal goes a long way towards appropriately addressing these issues, it is not enough to only filter some of the runoff that is directed into one of the primary recreational water use areas within the State and the Monterey Bay National Marine Sanctuary; the resources at risk are too significant to allow for this.

Absent measures to filter and treat all runoff prior to its discharge, the Commission concludes that proposed project is inconsistent with the provisions of Sections 30233(a), 30230, 30231, and 30240 of the Coastal Act to protect, enhance, and mitigate unavoidable impacts to offshore recreational and habitat resources.

In light of the significance of the offshore receiving water body, the runoff at this location needs to be filtered, treated, and "finished" prior to its ultimate discharge in the project area. The Commission often requires a managed "treatment train" of BMPs for this purpose. Such a train typically includes different biological and engineered BMPs for filtering and treating runoff at different points as it flows through a project area, and often includes overall active management in the project area to both maintain BMP elements of the "train" and to implement more global BMPs overall (e.g., vacuum sweeping). Typically, a finishing BMP is applied at the last stage of the train after the other BMPs have done their job (for example, a Stormwater Management Inc. *StormFilter* system or equivalent).[87]

In this case, it appears that there is insufficient space to pursue natural BMPs (e.g., grassy swales, wet ponds, etc.). Although there is a large area seaward of the road downcoast of the O'Neill residence that might have had utility in this respect, this area is not owned by the County. In terms of finishing units, there do not appear to be opportunities for further storm drain line consolidation; lacking same, there would need to be up to seven such units here. Although it would be feasible to install such units at this location physically, it does not appear that the scale and scope of the project and the expected drainage would dictate such units in this case. However, and at a minimum, all drainage in the project area must be filtered and treated prior to discharge, The proposed CDS units are appropriate, provided additional units are included so that all drainage goes through such units, and provided all such units are equipped

[87] The StormFilter system is what was required as the "finishing" units at the high school project in Watsonville as well as the Monarch Village Apartments project in Santa Cruz.

with media that can treat expected pollutants.[88] See special condition 1.

Coastal Waters/Intertidal

The proposed project would result in temporary negative impacts to surrounding coastal waters and beach from construction activities. The beach/intertidal construction zone at the base of the bluffs would occupy roughly half an acre. During the roughly six to seven months of construction activities, the resource values of the affected area would be reduced and/or eliminated. Construction noise, lights, vibration, and overall activities and human presence will also be expected to adversely affect listed (e.g., southern sea otter and California brown pelican) and unlisted species and their habitat inside and adjacent to the construction zone established. Furthermore, although the direct construction impacts themselves would be expected to end when the construction activities themselves ended, the effect of such construction in and adjacent to coastal waters on the short-term productivity of the affected areas could be felt for many years. In other words, the reduced construction area productivity during the construction period would not be expected to correct itself instantaneously when construction ended, and its effects may linger for some time, affecting coastal waters/intertidal values until previous productivity levels have been reestablished. In addition, the amount of time necessary for such a reestablishment of coastal waters/intertidal value also represents lost productivity in and of itself (because this time period when the areas might otherwise be thriving would not be available as a foundation for encouraging such values here). Thus, not only will there be the construction period direct and indirect affects, but a "hangover" period of reduced habitat productivity as the habitat recovers over time.

These impacts can be minimized by appropriate construction methods and monitoring before and during construction (as are already a part of the County project and by condition), but they cannot be eliminated entirely. Previous project modifications (see preceding findings) can offset this impact.

E. Cumulative Impacts

Coastal Act Section 30250(a) addresses cumulative impacts, stating in part as follows:

> ***Section 30250(a).*** *New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located…where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. …*

Shoreline armoring has significant negative impacts on coastal resources, as detailed in the preceding findings. In particular, and perhaps most far reaching, these structures halt the natural process of shoreline erosion and are expected to lead to the loss of beach over the long term (see previous findings).

It has become common practice to contend that the impacts of individual projects are negligible because the structure being proposed is small in relation to the coastline, or its impacts individually can be

[88] CDS makes such units, and the County has used them nearby in prior projects.

addressed in some manner. This phenomenon has been described as the 'tyranny of small decisions' as summarized by Gary Griggs, James Pepper and Martha Jordan (*California's Coastal Hazards: A Critical Assessment of Existing Land-Use Policies and Practices*). They observe:

> *[decisions to approve shoreline protective devices] are usually made on a project-by-project basis, they tend to be evaluated independently, without any systematic consideration of the aggregate or cumulative effects either within or among jurisdictions. Within such a decision-making context any given project can be viewed as small and thus easy to rationalize in terms of approval. Cairns (1986) calls this endemic failure to take into account the aggregate effects of environmental management 'the tyranny of small decisions.'*

The cumulative effect of this seawall when considered in relation to other armoring in the Pleasure Point and immediately adjacent vicinity is that, over time, beaches in this area will be lost, and surfing areas will generally migrate to the armoring. Mitigations can be imposed on armoring projects to reduce such impacts, but mitigation for the long-term impacts to the public both as a result of the individual project and the overall cumulative effect of it together with all the other armoring along this stretch of coast are more difficult. Some of this long term impact was "inherited" by the people of the state due to the fact that much of this stretch of coast was already armored to a certain degree, when the coastal permitting requirements of Proposition 20 and the Coastal Act were instituted in the early 1970s. With the sea level continuing to rise, and the shoreline continuing to erode, it is expected that the beach fronting these properties, like all California beaches on which armoring is located and on which the back-beach has thus been effectively "fixed" in location, will eventually disappear over time. The State has not to date completely come to grips with this phenomena.

The Commission concludes that only as conditioned in the previous findings can the cumulative impacts of the proposed project be addressed consistent with the provisions of Section 30250(a) of the Coastal Act.

9. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The County, acting as the lead CEQA agency, developed a revised draft EIR for the proposed project in March 2007.[89] Commission staff commented on the revised draft EIR, raising many of the same issues discussed in this report.[90] Ultimately, the County certified a Revised Final EIR (RFEIR) on March 20,

[89] SCH number 2001012097.

[90] July 12, 2006 letter.

2007.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This ~~staff~~ report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate mitigations to address adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, 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).