

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV



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LCP-3-SCO-20-0066-2 (COASTAL HAZARDS) OCTOBER 14, 2022 HEARING EXHIBITS

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San Mateo County Line

San Mateo County

Santa Cruz County

City of Santa Cruz

City of Capitola

North Coast

South County

Mid County/Live Oak Beach Area

Pacific Ocean

Monterey County Line

Monterey County

North Coast

San Mateo/Santa Cruz County Line

Swanton

Ben Lomond

Felton

Scotts Valley

Davenport

Paradise Park

Davenport

Santa Cruz

Davenport Landing Road

Exhibit 1
LCP-3-SCO-20-0066-2 (Coastal Hazards)
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City of Santa Cruz begins



Mid County area

City of Capitola

Shoreline Protection Exception Area
("SPEA")

City of
Santa
Cruz

Santa Cruz Harbor

26th Avenue Beach

Opal Cliffs

Pleasure Point

South County area



Aptos

La Selva Beach

Manresa

Via Gaviota

Seascape

Rio Del Mar/Beach Drive

Seacliff State Beach

Los Olas Drive

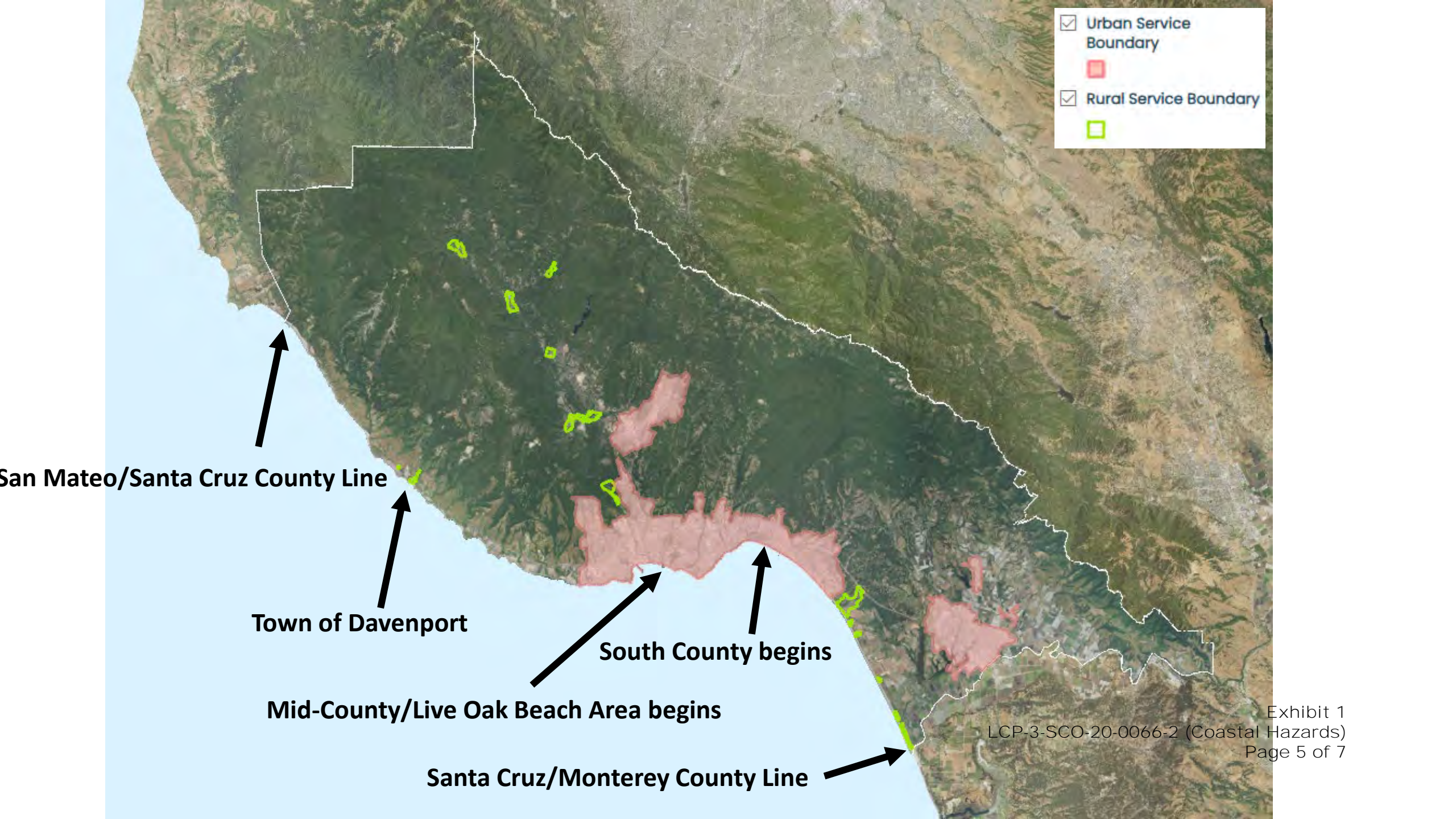
Potbelly Beach Drive

Pajaro Dunes

City of Capitola

Monterey County

Urban Service Boundary
 Rural Service Boundary



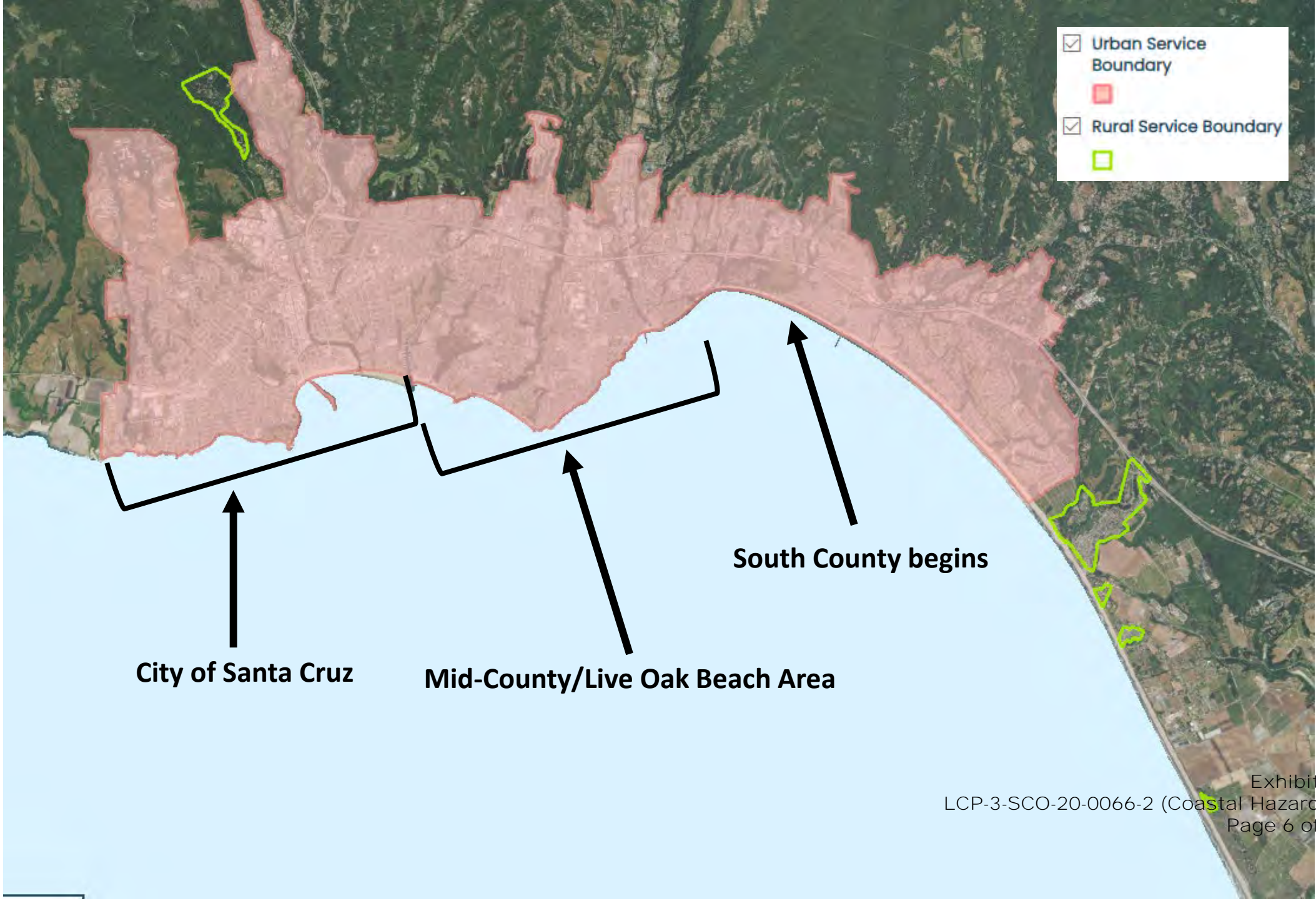
San Mateo/Santa Cruz County Line

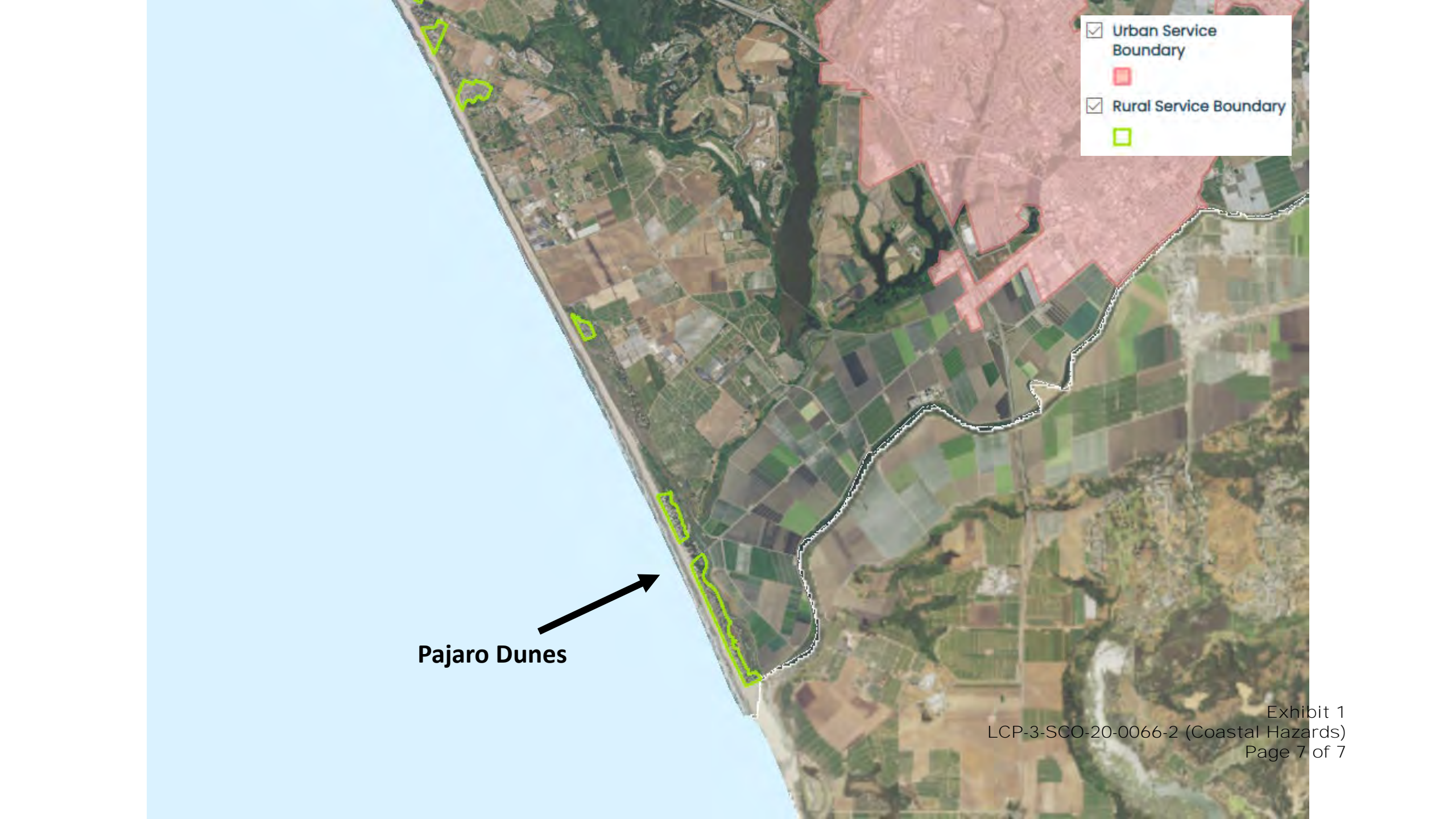
Town of Davenport

Mid-County/Live Oak Beach Area begins

South County begins

Santa Cruz/Monterey County Line





- Urban Service Boundary
- Rural Service Boundary

Pajaro Dunes

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September 9, 2020

Santa Cruz County Board of Supervisors
701 Ocean Street, Room 500
Santa Cruz, CA 95060

Re: Santa Cruz County Public Safety Element/Coastal Hazards LCP Update on the September 15, 2020 Board of Supervisors' Agenda (Agenda Item 7)

Dear Chair Caput and Honorable Supervisors:

Thank for you the opportunity to provide comments on the proposed amendments to the Local Coastal Program (LCP) regarding the coastal hazards component of the Public Safety Element update that you will be reviewing on September 15th. Although we realize that the Public Safety Element has many components, we are here focused on the coastal hazards component, comprised of proposed new LCP policies governing development along the County's beaches, bluffs, and shoreline. These areas help to define the County, and are very important not only to the community but to the many visitors that come to enjoy all that the area has to offer. These beach and shoreline areas are thus not only a huge part of the community's identity and its cultural fabric, but they are also a huge driver for the local economy. They are also under significant and growing threat, especially as a result of global climate change and sea level rise that threaten to ultimately lead to the loss of many of the County's important sandy beach areas in the relatively short term. The LCP's coastal hazards policies, and the way in which they address proposed development, are among the most important tools the County has to protect these areas. As a result, the update before you is critically important, and will help to define how the County addresses its vulnerabilities, especially as it relates to these critical resources, in this crucial time. In fact, decisions made now are almost assuredly going to have oversized consequences in the future.

Given the importance and sensitivity of the resources at stake, and also the degree of public infrastructure and private development along the shoreline that would be affected by the proposed policies, we have been active partners with your staff throughout the local process to date. That collaboration has focused on developing draft policies to help ensure development is sited and designed in a manner to minimize risks to life and property, and to limit shoreline armoring and require commensurate mitigation for its impacts, all within a framework of protecting beaches and related shoreline and park resources in light of sea level rise. A tall task indeed, and one where we very much appreciate the effort and approach of your staff, including being open to exploring different policy approaches that might be applied to the County's shoreline. Ultimately, we have many points of agreement as a result, including the idea of allowing for managed retreat as much as possible in the more rural areas of the County and of

looking to shoreline management plans as a means of refining these policies in the future, but also in terms of trying to make sure that the risks of developing along an eroding shoreline are internalized by private landowners in such a way that the public is not forced to bear the brunt of the impacts that accrue to such development decisions, particularly with respect to the loss of the public's beaches and parks due to private shoreline armoring.

At the same time, while we have been open to the idea of a narrow 'exception area' where armoring and development that depends on it might be facilitated (specifically in blufftop areas where beaches are narrow or nonexistent and thus where such armoring would not be expected to lead to direct beach loss), we have been clear from the start that that is not something that is explicitly allowed by the Coastal Act (and not something allowed by the current LCP). Even so, we have explored ways that such a concept might best be proposed by the County in a manner that we might be able to support, including so that the County can make its best possible case to the Coastal Commission when the LCP amendment is considered. Unfortunately, however, we believe that the concept as it is currently embodied in the draft policies is simply overly broad. As it is currently structured in the proposed policies, the 'exception' area is essentially the entire more urbanized unincorporated shoreline, including areas such as Davenport on the north coast and La Selva Beach on the south coast, but also all of coastal Live Oak and most of south County south of Capitola. This is also the area with the most heavily used sandy beach and shoreline recreational access destinations in all of the unincorporated County. In other words, much of the proposed exception area is actually where protection of these beach and shoreline resources is the most important for public recreational access utility. Despite that, the proposed policies would allow new development, including redevelopment, in that area to rely on armoring. While we understand the desire to make it easier for private property owners to protect their homes and other development in this manner, and while we appreciate that the proposed policies would require property owners to also assume the risks of developing in harm's way in light of coastal hazards, and to mitigate for potential coastal resource impacts, this proposed construct is not allowed under the Coastal Act.

Coastal armoring has a series of impacts on shorelines, perhaps the most critical being that armoring directly leads to a loss of sandy beaches, particularly as the shoreline erodes and sea levels rise. The most obvious impact is that armoring occupies physical beach and shoreline space (e.g., a rock revetment set on the beach, such as is prevalent along the area between the Harbor and Pleasure Point), and the underlying area is not available for public use. But a sometimes less obvious impact might even be worse, namely the fact that beaches that would normally migrate inland in response to erosion have no place to go, and ultimately get squeezed between a rising sea and shoreline armoring. This phenomenon is often referred to as passive erosion, or 'coastal squeeze', and it is a reasonably foreseeable effect of any program that relies on continuing shoreline armoring, such as is being proposed. To be clear, and despite claims by some to the contrary, armoring is not an innocuous private property right of some sort, rather it directly leads to a loss of the *public's* beach and shoreline

resources, and it is important in this debate that it is understood in that way. And, as is, much of the County's more urbanized shoreline is armored, and you are being asked today to make choices about whether continuing that trend takes the County in the right direction, weighing those public versus private costs and benefits. To be sure, these are difficult choices, including because allowing for continued armoring and reliance on same to protect development is also choosing to allow beaches to ultimately disappear, whereas choosing to allow beaches to migrate inland is choosing to remove and relocate development to more inland locations out of harm's way. Again, these are not easy decisions, including as they are often framed in terms of coastal property owner's needs – and to be sure coastal property owners have a vested interest in the outcome – but often missing from the debate are the *public's* needs as it relates to ensuring continued access to the County's sandy beaches and shoreline and park areas. While not completely mutually exclusive, it needs to be understood that armoring represents a choice that typically benefits those private interests at the expense of the public's interests.

With respect to allowing armoring, it remains our position that armoring is *not* allowed to be used to ensure stability and structural integrity for new development and redevelopment under the Coastal Act and the current LCP, and that *only* pre-Coastal Act structures (i.e., pre-January 1, 1977) that have not been redeveloped since then are entitled to protection from armoring, including because the Coastal Act and the LCP require new development and redevelopment to be stable without ever relying on armoring. These Coastal Act and LCP requirements directly respond to the above-described significant adverse impacts that armoring can have on beaches and the shoreline. At the same time, much of the urbanized County coastline is armored to protect private residential development, even though, in our experience, there are actually very few private residential structures in this area that pre-date the effective date of the Coastal Act. In fact, it is relatively clear that those pre-Coastal Act structures are the exception, and the rule is in fact a County shoreline fronted by much newer and/or much more recently and significantly modified homes. It is in this dichotomous context that the proposed policies find their way to your desk. And the task before you is to find a path forward that can be found consistent with the Coastal Act at the same time as recognizing the practical issues associated with an armored shoreline, something that makes the otherwise straightforward Coastal Act and current LCP requirements limiting shoreline armoring more complicated in practice.

As such, and as we have communicated to County staff, we understand the reasons and rationale behind the proposed LCP policies, and have worked with them in an attempt to create a set of policies that respond to both objectives: protecting the public's beaches while also allowing some flexibility and adaptability given the County's shoreline development context. While we have made progress on this front, we continue to believe that the proposed policies deviate significantly from the above Coastal Act requirements, and would serve to identify most all of the County's prime beach and shoreline recreational areas for continued reliance on armoring, including for new and

redevelopment, when that is prohibited by the Coastal Act and the existing LCP. We do not believe that the proposed policies are approvable in their current form.

At the same time, and as indicated, we remain hopeful that a practical solution that respects the Coastal Act and the public's beaches and shoreline areas is achievable, even with the proposed 'exception' area concept. Toward that end, and as we have shared with your staff, we believe that what is really needed at this point is a strategic refinement of the key concepts, and a set of simplified and clarified policies that can implement those concepts. As is, the proposed LCP Land Use Plan (LUP) coastal hazards policies (Chapter 6.4) include some 10 pages of introduction, and some 50 overlapping policies (some covering multiple pages themselves) and programs spanning another almost 20 pages, all of which is dense reading that in many cases suffers from some internal inconsistencies. That is not to fault your staff, as these kinds of issues tend to emerge from such a long planning process, where differing input points and changes along the way can serve to add complexity as opposed to clarity. At the same time, it is very important that such a critical tool in the County's adaptation arsenal is clear to all parties, including to facilitate its successful implementation in light of the resources at stake.

In that context, we suggest that the proposed policies be modified and refined in such a way as to recognize Coastal Act requirements as well as the nature of the County's built and natural shoreline environment, and to better protect and enhance the public's beaches and shoreline recreational areas while also ensuring that private development internalizes the actual costs of maintaining homes in an area subject to significant coastal hazard risks. We have attached a draft set of refined and simplified LUP policies that we believe do just that, and that build upon the concepts and key language in the County staff-proposed version. For example, if the County still intends to pursue an exception area, where armoring might be relied upon for new and redevelopment notwithstanding the Coastal Act, then that exception area should be limited to already developed areas with limited area to migrate inland that are already protected by armoring and where the geography and environment wouldn't appear to lend themselves to significant beach migration/creation. As discussed with County staff, the only unincorporated area that might meet that criteria appears to us to be generally along Opal Cliffs and portions of Pleasure Point, and thus that is our suggestion should the concept continue to be pursued.

Beyond that, though, we don't see how policies to allow armoring to protect new and redevelopment (even if limited to a 'one-time' allowance, as appears to be identified by at least some of the proposed policy text) are appropriate, and rather the objective there should be to find a way to transition from an armored shoreline to one where private property owners have internalized the risk for developing in a coastal hazard area without a reliance on armoring, and the public isn't forced to bear the brunt of the costs from armoring to protect such private development, including the loss of the public's finite and incredibly important sandy beaches. Of course, recognizing the difficulties of that transition, our suggestions allow for armoring to be retained in new development and redevelopment circumstances until such time as it can be safely removed in a way

that doesn't threaten adjacent primary development, and to further allow for reduced setbacks when there is limited private development space that can be located out of harm's way. We also believe that blufftop and shoreline-level development need to have separate prescriptions, including recognizing the differing nature of the coastal hazard threat and the impact on the beach and shoreline. To be clear, these policies would apply to structures that front existing and heavily used County beaches, and offer a path that protects these important public resources while also being responsive to the development patterns that line these beaches, and also the Coastal Act that regulates all of it.

Thus, we strongly recommend your consideration of our proposed suggested LUP policies that are attached. These are in draft form, and do not speak to the introduction to the LUP chapter (and that introduction would also need to have conforming changes made, as would implementing ordinances in LCP Implementation Plan (referred to as the County Code in your materials) Chapter 16.10), but we believe they capture as best as possible the key elements of the County staff-proposed version in what we believe to be a simpler and clarified manner. Importantly, they continue to suggest that the County's more rural shoreline areas adapt via managed retreat, and they continue to emphasize the need for further planning via shoreline management plans that can provide more detailed and specific LCP prescriptions to subsets of the County's coastline that share issues and attributes. In that sense, these policies are intended to act as a bridge to those shoreline management plans, wherein policies and directions can be further refined through that more specific planning by area. They also include the aforementioned exception area concept (albeit refined to a smaller area limited to Opal Cliffs/Pleasure Point), even though that is not what the Coastal Act would dictate, because we want the County to be able to put forward their best possible version of that concept. Bracketing that policy, importantly, these attached policies are in a form and of a content that we believe are both approvable under the Coastal Act, and that will form the general basis for our eventual recommendation to the Commission when the LCP amendment is considered. We had hoped to be able to spend a bit more time with your staff discussing how these draft suggestions could be incorporated into the staff-recommended version prior to Board consideration later this year, but we recently learned that this matter was headed to the Board for final consideration on September 15th, and we felt it was important to ensure that the Board and the public had the benefit of our thoughts given that condensed time frame. We hope that these suggestions are understood in that context. And we would be happy to spend more time working with County staff on the draft policies prior to further Board consideration should you agree that makes sense, as opposed to your taking action on September 15th.

In closing, we hope that this letter provides constructive feedback on the proposed coastal hazard policies, especially in the context of their ultimate review by the Coastal Commission for Coastal Act consistency, and we look forward to continuing to work with you and your staff on modifications designed to best achieve Coastal Act and LCP goals. To be sure, these are incredibly important planning and public policy decisions

Santa Cruz County Coastal Hazards LCP Update

that will affect the County's shoreline for many years to come, especially as that shoreline changes as sea levels rise, and they demand thoughtful consideration. It is also critical that these decisions are based on an honest explanation and understanding regarding the various trade-offs that are in play with respect to armoring and the way such armoring affects the beach and shoreline. We believe it does a great public disservice when these trade-offs are not acknowledged and are not clearly identified, perhaps most importantly the fact that armoring by definition leads to a loss of sandy beach in most all cases, and other impacts to public coastal resources, and that private armoring to protect private homes has clear private benefits for that private landowner, but the corresponding costs to the commons and the public's beaches are borne by the public. And these costs are borne by *all* of the public, including inland County residents but also visitors to the area. The beaches belong to all of us and not just those fortunate enough to live right on top of them, and the policies should to be rooted in this reality as well.

Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,



Kevin Kahn
Central Coast District Supervisor
California Coastal Commission

Enclosure: Coastal Commission Staff Draft Suggested LUP Chapter 6.4 Policies

cc: Kathy Molloy, Santa Cruz County Planning Director
Jeff Gaffney, Santa Cruz County Parks Director
David Carlson, Santa Cruz County Resource Planner

Policy 6.4 Overall Coastal Hazards Objective

Protect and enhance bluff, shoreline, offshore, and sandy beach recreational areas for public use and enjoyment while ensuring all development (including private structures and public infrastructure) are safe from coastal hazards as much as possible both now and in the future. Ensure that otherwise allowable development is sited, designed, and conditioned to minimize risks to life and property, to avoid being subject to coastal hazards to the maximum degree possible, and where development cannot entirely avoid coastal hazards, to appropriately mitigate for all adverse impacts to coastal resources, including to bluff, shoreline, offshore, and sandy beach recreational areas.

Policy 6.4.1 Definitions

While other LCP definitions are also applicable in this Chapter, the following definitions take precedence to the extent there is any internal inconsistency or ambiguity with other LCP definitions as they may relate to the policies of this Chapter:

Coastal Hazards. Coastal hazards include, but are not limited to, episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunamis, coastal flooding, landslides, bluff and geologic instability, and the interaction of same, and all as impacted by sea level rise.

Existing Structure. A structure in existence prior to the effectiveness of the Coastal Act (i.e., development legally authorized and built prior to January 1, 1977) and that has not been redeveloped since.

Development. As used in these policies, “development” and “new development” are synonymous, and defined per Coastal Act Section 30106. In addition, as used in these policies, development shall include construction of entirely new structures (whereby these policies apply to the entire new structure), additions to existing structures which do not amount to redevelopment, as defined below (whereby these policies apply to the addition itself and anything altered to accommodate same on the existing structure), and redevelopment (whereby the entire structure shall be considered new development subject to all applicable policies).

Redevelopment. A structure shall be considered redeveloped, whereby the structure is no longer considered an existing structure and instead the entire structure and all development on the site must be made to conform with all applicable LCP policies, when such development consists of: (1) alteration (including interior and/or exterior remodeling and renovations, demolition or partial demolition, etc.) of 50% or more of the major structural components (including exterior walls, floor and roof structures, and foundations) of such development; (2) additions and alterations to such development that lead to more than a 50% increase in floor area for the development; or (3) additions and alterations to such development that costs 50% or more of the market value of the existing structure before construction. Changes to floor area and individual major structural components and the costs of such changes are measured cumulatively over time from January 1, 1977.

Recurring Damage Property. A property shall be considered a recurring damage property if any portion of the development’s major structural components (including exterior walls, floor and roof structures, and foundation) are subject to coastal hazards in a frequency and/or magnitude at which such major structural components must be significantly altered (including renovation and/or replacement) to abate those coastal hazards. For purposes of this definition, “exterior wall major structural components” shall include exterior cladding and/or framing, beams, sheer walls, and studs; “floor and roof structure major structural components” shall include trusses, joists, and rafters; and “foundation major structural components” shall include any portion of the mat foundation, retaining walls, columns, and grade beams.

Shoreline Armoring Exception Area. As shown on LUP Figure xxx, and comprised of ocean-

fronting properties between Soquel Point to the City of Capitola border.

Shoreline Protective Devices. Shoreline protective devices are synonymous with “armoring” and “shoreline armoring” and “coastal armoring”, and include structures along the ocean-land interface that are used to protect development against coastal hazards, including but not limited to seawalls, riprap/rock revetments, gunite/shotcrete, sheet piles, breakwaters, groins, bluff retention devices, retaining walls, pier/caisson foundation (or other form of atypical deep foundation) and/or wall systems.

Policy 6.4.2 Coastal Hazards Analysis

Development in areas potentially subject to coastal hazard risks shall include a coastal hazards analysis that shall be based upon current best professional practices and best available science, including reasonably foreseeable projections of sea level rise (such as those identified and recommended for use by state agencies including the California Coastal Commission and the Ocean Protection Council). Such analysis shall demonstrate that the development will be consistent with all applicable coastal hazards policies.

Unless otherwise specified, the time horizon to use in the required coastal hazards analysis for residential and commercial development is at least 75 years, and for critical public infrastructure (e.g., significant public roads, public utility infrastructure, etc.) at least 100 years. The time horizon used in the analysis shall only be used for coastal hazards evaluation purposes, with the actual life of the development to be as established through the CDP and/or as dictated by actual physical conditions (e.g., the actual life of the development has been reached if it is destroyed/deemed unsafe for occupancy due to coastal hazards).

Policy 6.4.3 Blufftop Development Standards

Development on blufftops, including within 150 feet of the blufftop edge, shall be subject to all of the following:

- 1. Minimum Required Setback.** All development shall be set back a sufficient distance from the blufftop edge to avoid coastal hazard risks to the maximum degree possible while ensuring stability and structural integrity in light of potential erosion and other coastal hazards. Such minimum required setback shall be the distance necessary for all development (including any decks, fences, and other ancillary development) to stay inland of a line that identifies the future predicted location of the blufftop edge accounting for both expected erosion and a bluff stability factor of safety (i.e., a minimum factor of safety against sliding of 1.5 (static) and 1.2 (pseudostatic, $k = 0.15$)) over the required time horizon. This setback line shall factor in both historical erosion as well as the potential for accelerated erosion due to sea level rise and other climate change impacts, and shall not factor in the effect of any existing or proposed shoreline protective devices. In addition to the minimum required setback, the setback shall be increased as necessary in order to otherwise protect life and public safety and/or to better address potential coastal resource concerns (e.g., protection of public shoreline, offshore, and sandy beach recreational access areas, natural landforms, public views, etc.). In no event shall the minimum required setback be less than 25 feet from the blufftop edge.
- 2. Setback Exceptions.** Exceptions to the Minimum Required Setback shall be limited to the following cases:
 - a. Public Improvement Exception.** Development related to public recreational access (e.g., stairways, paths, overlooks, ramps, etc.) and critical public infrastructure improvements (e.g., improvements to significant public roads, public utility infrastructure, etc.) may be allowed in the bluff setback area if no possible alternative means of providing such improvements exist, and they are sited and designed to protect and enhance coastal resources, avoid the need for shoreline

armoring to the maximum degree possible, and minimize bluff erosion to the maximum degree possible.

- b. Limited Development Space Exception.** If there is insufficient space to accommodate both reasonable development (for residential purposes, meaning at least a 1,000 square-foot house) and the Minimum Required Setback, then a reduced setback may be allowed provided the development: 1) shall not place life or property in danger or imminent threat; 2) shall be no closer to the blufftop edge than adjacent legal development on up- and downcoast properties; 3) shall be no closer than 15 feet from the blufftop edge; 4) shall not be protected by shoreline protective devices; 5) shall not adversely impact coastal resources; and 5) shall be consistent otherwise with all other applicable LCP policies.
- 3. Existing Shoreline Protective Devices.** Blufftop development proposed on sites protected by an existing shoreline protective device shall be prohibited unless the device is removed and the area associated with it is restored to natural conditions as part of the project. Such immediate removal and restoration shall not be required where removal would endanger public improvements or existing principal structures on adjacent sites to the degree that these improvements/structures would qualify for armoring under this LCP. In such cases, blufftop development shall only be approved subject to requirements that: 1) the existing shoreline protective device shall be removed and the affected area restored as soon as such removal and restoration can be accomplished without endangering public improvements and/or existing principal structures on adjacent sites (e.g., as adjacent sites redevelop, as adjacent sites are conditioned for future removal, etc.); 2) the existing shoreline protective device shall be modified to reduce its coastal resource impacts (e.g., restacking/removing riprap/rock revetments so as to open up additional beach space, contouring seawalls to improve public views, paying commensurate mitigation fees, etc.) without extending its useful life; and 3) and subject to bonding sufficient to cover such removal and restoration in the future.

Policy 6.4.4 Bluff Face Development Standards

Development on coastal bluff faces (i.e., the bluff area between the blufftop edge and the base of the bluff) shall be prohibited, except for: native bluff landscaping; public recreational access improvements (e.g., stairways, paths, overlooks, ramps, etc.) and critical public infrastructure (e.g., significant public roads, public utility infrastructure, etc.) where no possible alternative means of providing such improvements exist; and shoreline protective devices appropriately authorized by the LCP and/or the Coastal Act. All such allowable bluff face development shall be sited and designed to protect and enhance coastal resources, avoid the need for shoreline armoring, and minimize bluff face erosion to the maximum degree possible. If such bluff face development is protected by armoring, then such development shall only be approved if the armoring is modified to reduce its coastal resource impacts (e.g., restacking/removing riprap/rock revetments so as to open up additional beach space, contouring seawalls to improve public views, etc.).

Policy 6.4.5 Shoreline Development Standards

Development on shoreline areas (i.e., development that is seaward of the base of coastal bluffs and/or at or near the shoreline sandy beach/ocean elevation (i.e., “shoreline development”) shall be subject to all of the following:

- 1. Minimum Required Setback.** All development shall be set back a sufficient distance from the ocean to avoid coastal hazard risks to the maximum degree possible while ensuring stability and structural integrity in light of potential erosion and other coastal hazards. Such minimum required setback shall be the distance necessary for all development (including any decks, fences, and other ancillary development) to stay inland of a line that identifies the future predicted location of the shoreline accounting for wave uprush from a 75 or 100-year storm (as applicable depending on the

proposed use) plus sea level rise and other climate change impacts. This setback line shall factor in both historical erosion as well as the potential for accelerated erosion due to sea level rise and other climate change impacts, and shall not factor in the effect of any existing or proposed shoreline protective devices. The setback shall be increased as necessary in order to otherwise protect life and public safety and/or to better address potential coastal resource concerns (e.g., protection of public shoreline, offshore, and sandy beach recreational access areas, natural landforms, public views, etc.).

2. **Setback Exceptions.** Exceptions to the Minimum Required Setback shall be limited to the following cases:
 - a. **Public Improvement Exception.** Development related to public recreational access (e.g., stairways, paths, overlooks, ramps, etc.) and critical public infrastructure improvements (e.g., improvements to significant public roads, public utility infrastructure, etc.) may be allowed in the shoreline setback area if no possible alternative means of providing such improvements exist, and they are sited and designed to protect and enhance coastal resources, avoid the need for shoreline armoring as much as possible, and minimize beach encroachment as much as possible.
 - b. **Limited Development Space Exception.** If there is insufficient space to accommodate both reasonable development (for residential purposes, meaning at least a 1,000 square-foot house) and the Minimum Required Setback, then a reduced setback may be allowed provided the development: 1) shall not place life or property in danger or imminent threat; 2) shall be located as far inland as possible; 3) shall be no closer to the ocean than adjacent legal development on up- and downcoast properties; 4) shall not encroach on any additional sandy beach area; 4) shall not be protected by shoreline protective devices (including piers/caissons and elevation); 5) shall not adversely impact coastal resources; and 5) shall be consistent otherwise with all other applicable LCP policies.
 - c. **Takings Exception.** If there is no space available to accommodate any development even with a reduced setback, a reasonable development (for residential purposes, meaning at least a 1,000 square-foot house) may nevertheless be allowed to avoid a potential taking of private property provided the development: 1) shall meet all of the requirements for a limited development space reduced setback except that it is allowed protection via piers/caissons and elevation (but not allowed protection by other shoreline protective devices); 2) shall be elevated the minimum amount necessary to provide elevated living space for the next 20 years; 3) shall use the minimum number and size/depth of piers/caissons possible; 4) shall leave the area below the lowest horizontal portion of the elevated living space unenclosed and unused for any development needs, with the exception of appropriately designed unenclosed parking and/or outdoor storage (e.g., boat storage) if consistent with the shoreline protective device requirements of subsection 3 below; 5) shall be no higher than the maximum allowable height standard or 15 feet above the lowest horizontal portion of the elevated living space, whichever is lower; 6) shall verify that it can be served by adequate public infrastructure and utility services for at least 20 years; and 7) has not already been so elevated pursuant to these requirements (i.e., the shoreline development ‘takings exception’ provisions pursuant to this subsection can only be applied one time per site).
3. **Existing Shoreline Protective Devices.** Shoreline development proposed on sites protected by an existing shoreline protective device shall be prohibited unless the device is removed and the area associated with it is restored to natural conditions as part of the project. Such immediate removal and restoration shall not be required where removal would endanger public improvements or existing principal structures on adjacent sites to the degree that these principal structures would qualify for armoring under this LCP. In such cases, shoreline development shall only be approved subject to requirements that: 1) the existing shoreline protective device shall be removed and the affected area

restored as soon as such removal and restoration can be accomplished without endangering public improvements and/or existing principal structures on adjacent sites (e.g., as adjacent sites redevelop, as adjacent sites are conditioned for future removal, etc.); 2) the existing shoreline protective device shall be modified to reduce its coastal resource impacts (e.g., restacking/removing riprap/rock revetments so as to open up additional beach space, contouring seawalls to improve public views, paying commensurate mitigation fees, etc.) without extending its useful life; and 3) and subject to bonding sufficient to cover such removal and restoration in the future. In addition to these requirements, takings exception cases shall also ensure that all armoring (other than the pier/caisson elevation structure itself) at and fronting the site shall be removed and reconstructed/relocated as far inland as possible, including under the elevated structure, so as to provide adequate protection for the next twenty years for roads and infrastructure serving the project.

Policy 6.4.6 Shoreline Armoring Standards

Shoreline protective devices shall only be allowed if they meet all of the criteria below:

- 1. Allowable Armoring.** The shoreline protective device is: (1) required to serve a coastal-dependent use; or (2) to protect a public beach or an existing principal structure that was present in roughly the same form as exists today on January 1, 1977 (and that has not been changed in a way that constitutes redevelopment) and that is in danger from erosion (i.e., would be unsafe to use or occupy within two storm seasons).
- 2. Least Damaging Alternative.** The shoreline protective device is the least environmentally damaging possible alternative that meets the tests for allowable armoring above. Hard armoring (such as seawalls, etc.) shall only be allowed if soft alternatives (such as beach nourishment, vegetative planting, and drainage control, etc.) cannot meet the above least environmentally damaging possible alternative criteria, and if limited as much as possible to avoid coastal resource impacts.
- 3. Design Standards.** All shoreline protective devices shall be sited and designed to avoid coastal resource impacts to the maximum possible extent, including by reducing the footprint of the structure as much as possible, and designing for sea level rise conditions expected over the life of the protected development. Riprap shall be prohibited (and shall be removed in all cases where armoring is allowed pursuant to this chapter and existing riprap is present) unless riprap is the least environmentally damaging possible alternative.

Bluff face and/or base of bluff armoring devices shall be vertical or semi-vertical seawall-type devices that have been designed to appear as and emulate natural bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation to the maximum degree possible. Protruding elements (e.g., corners, edges etc.) shall be contoured in a non-linear manner designed to evoke natural bluff undulations. Drainage and related elements, including expected drainage staining over time, shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden or inconspicuous as seen from the top of the bluffs and the beach and shoreline area. All camouflaging elements (including the color, texture, and undulations) shall be maintained throughout the life of the armoring device.

Unless required to be removed per applicable blufftop and shoreline development policies, all allowable armoring shall include public recreational access trails and related access features built into the project. At a minimum, a public access promenade that is at least 5 to 10-feet wide that is appropriate for the shoreline context shall be incorporated at an appropriate elevation that will provide for maximum access utility unless equivalent promenade is provided and maintained on the blufftop above, and informal trails shall be incorporated at lower elevations as needed to facilitate shoreline level lateral and other public access (e.g., to allow lateral shoreline navigation at higher

tides). Other access features (e.g., benches, picnic tables, bicycle parking areas, interpretive and directional signs, trash/recycling facilities, doggie mitt stations, etc.) shall be provided at a level commensurate with expected use. ADA connections to all such promenades and ADA-compatible siting and design of all such related access features shall be required. Such promenades shall include vertical connections from inland accessways and roads to it at appropriate junctures. Permittees shall be responsible for ongoing repair and maintenance of such elements in their approved and/or required states.

4. **Mitigation.** All shoreline protective devices shall be accompanied by proportional mitigation for all unavoidable coastal resource impacts, including with respect to impacts on shoreline sand supply, sandy beaches, public recreational access, public views, natural landforms, and water quality. At a minimum, the effects of the device with respect to retention of shoreline sand generating materials, the loss of beach/shoreline area due to its footprint, and passive erosion shall be evaluated and appropriately mitigated. Proportional in-lieu fees may be used as a tool for impact mitigation if in-kind options (such as developing new public access facilities commensurate to offset the access impacts identified) are not possible, and if such in-lieu fees are deposited in an interest bearing account managed by the County and used only for public recreational shoreline area access improvements within the same general vicinity as the impacted area for which mitigation is being required. All evaluation methodologies, including related to potential in-lieu fees and offsetting improvements, shall be in a form and content approved by the California Coastal Commission or its Executive Director. Impact mitigation shall be evaluated and required in 20-year increments, and CDP permittees shall be required to apply for CDP amendments prior to expiration of each 20-year mitigation period for the County to evaluate what impacts shoreline protection is continuing to have on coastal resources beyond those already accounted and mitigated for during the prior 20-year mitigation period. Based on this evaluation, the CDP amendment shall include mitigation for coastal resource impacts associated with retention of the shoreline protective device beyond the preceding 20-year mitigation period. The application shall also include consideration of alternative possible mitigation measures in which the permittee can modify the shoreline protective device to lessen its impacts on coastal resources going forward.
5. **Monitoring.** The shoreline protective device shall be regularly monitored by a civil engineer and/or engineering geologist familiar and experienced with coastal armoring structures and processes. Monitoring reports shall be required to be provided to the County and the Coastal Commission's Executive Director by May 1st of every fifth year (to allow for monitoring of effects from the previous winter) for as long as the shoreline protective device remains authorized, and such reports shall at a minimum cover all aspects of the armoring reevaluation and repair and maintenance provisions specified below.
6. **Armoring Reevaluation.** For existing shoreline protective devices that are proposed to be reconstructed, expanded, and/or replaced (where, at a minimum, 50% or more replacement constitutes replacement of the entire structure), and in addition to the other requirements of this policy, the CDP application shall include a reassessment of the need for the device, the need for any repair or maintenance of the device, and the potential for removal based on changed conditions and circumstances, including whether such device meets the criteria of this policy. The CDP application shall at a minimum include an evaluation of: the age and condition of the existing principal structure being protected (or evaluation of the coastal-dependent use being served or public beach being protected, if applicable); changed geologic site conditions including but not limited to changes relative to erosion and sea level rise; and impacts to coastal resources.
7. **Armoring Duration.** The shoreline protective device shall only be authorized until the time when the existing principal structure that is protected by such a device: (1) is no longer present; (2) no

longer requires armoring; or (3) is redeveloped. Permittees shall be required to submit a CDP application to remove the authorized shoreline protective device within six months of a determination by the County or the Coastal Commission's Executive Director that the shoreline protective device is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring. In the case of coastal redevelopment, removal of the authorized shoreline protective device and restoration of the affected area shall be required as part of construction of the redeveloped structure.

- 8. Repair and Maintenance.** The shoreline protective device shall be repaired and maintained as necessary to ensure that it continues to exist in its approved and/or required state (including CDP requirements pertaining thereto), particularly in relation to ensuring the continued utility and function of the design standard requirements above. Repair and maintenance of a shoreline protective device that is not protecting an existing structure (or any structure that is ineligible for armoring under this Chapter) shall: 1) be limited to the minimum amount of maintenance needed to maintain the functionality of the device, but in no case shall include its expansion or extend its useful life; and 2) be accompanied by a Removal and Restoration Plan pursuant to Policy 6.4.8 that documents how the structure and device will be removed and the affected area restored within 5 years of approval of the repair and maintenance.
- 9. Emergency Authorization.** In cases of emergency, an emergency shoreline protective device may be approved on a temporary basis, and only under the condition that the device is required to be removed unless a regular CDP is approved for retention of the structure. In such cases, a complete CDP application shall be required to be submitted within 60 days following construction of the temporary emergency shoreline protective device, unless an alternate deadline is authorized by the Planning Director for good cause, including continued good faith efforts toward submittal of such application. Any such temporary emergency shoreline protective device shall be sited and designed to be the minimum necessary to abate the identified emergency, and to be as consistent as possible with all LCP shoreline protective device standards, including in terms of avoiding coastal resource impacts to the maximum possible extent. Mitigation for impacts will be required through the regular CDP process, including mitigation commensurate with the duration of impacts caused by the emergency temporary device. The County shall notify the Executive Director upon receipt of a request for an emergency shoreline protective device within the County's CDP jurisdiction.

Policy 6.4.7 Drainage and Landscaping

All development in areas subject to coastal hazards risks shall require: the removal of nonnative and invasive plants and replacement with native bluff plants at least in the area located within 10 feet of the blufftop edge on blufftop development sites (and all non-coverage areas on development sites located seaward of the blufftop edge, where replanting shall not occur on sandy beach) including as the blufftop edge location changes over time; a drainage system that ensures that no drainage will flow over the coastal bluff and/or seaward of the blufftop edge (including water from landscaping and irrigation), that drainage is collected and either accommodated on site or otherwise directed inland to inland drainage systems, and that such drainage does not contribute to coastal bluff or other shoreline erosion and/or adverse coastal resource impacts; provisions for ongoing repair and maintenance of all drainage and landscaping in their approved and/or required states; and property owners to be responsible for the costs of repair and/or restoration associated with any off-site impacts caused by drainage and landscape development on the site.

Policy 6.4.8 Removable/Relocatable Development Requirements

All development in areas subject to coastal hazard risks shall be sited, sized, designed, constructed, and otherwise developed in a manner that allows for it to be easily removable/relocatable if threatened in

such a manner as to require extraordinary measures, including shoreline armoring, to respond to coastal hazards risks.

Policy 6.4.9 Density and Use Intensity Calculations

For blufftop development, all areas seaward of the blufftop edge (including but not limited to bluff faces, sandy beach areas, and areas subject to the public trust), shall not be used for determining net lot area for density/use intensity calculation purposes, including in terms of allowable numbers of units and mass/scale considerations (e.g., allowed floor area ratio, lot coverage, etc.). For shoreline development, net lot area shall be considered to be 2,000 square feet for these same purposes.

Policy 6.4.10 Coastal Hazard Risk Disclosure

All approvals for development that is subject to coastal hazard risks shall require the property owners of all affected properties to record deed restrictions against all such properties prior to issuance of coastal permits for the development wherein the property owners acknowledge and agree, on behalf of themselves and all successors and assigns, that:

1. **Coastal Hazards.** The site is subject to coastal hazards, including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, tidal scour, coastal flooding, landslides, bluff and geologic instability, and the interaction of same, and all as impacted by sea level rise.
2. **Risk Assumption.** The property owners assume and accept the risks to themselves and their properties of injury and damage from such coastal hazards in connection with the permitted development.
3. **Liability Waiver.** The property owners unconditionally waive any claim of damage or liability against the County and the California Coastal Commission, and the officers, agents, and employees of each, for injury and/or damage in connection with the permitted development.
4. **Indemnification.** The property owners indemnify and hold harmless the County and the California Coastal Commission, and the officers, agents, and employees of each, with respect to the County's and/or Coastal Commission's approval of the development against any and all liability, claims, demands, damages, costs, expenses, and amounts paid in settlement arising from any injury and/or damage in connection with the permitted development. In addition, the CDP permittee(s) shall be required to reimburse the County and/or the Coastal Commission in full (within 60 days of being informed by the County and/or the Commission of the amount) for all costs/fees that are incurred in connection with the defense of any action brought by a party other than the permittee(s) against the County/Coastal Commission, their officers, employees, agents, successors and/or assigns challenging the approval or issuance of the CDP, the interpretation and/or enforcement of CDP terms and conditions, or any other matter related to the CDP. The County and the Coastal Commission retain complete authority to conduct and direct the defense of any such action against the County/Coastal Commission, their officers, employees, agents, successors and/or assigns.
5. **Property Owner Responsibility.** That any adverse effects to property caused by the permitted development shall be fully the responsibility of the property owners, including any cost associated with abatement and/or future relocation/removal of structures due to coastal hazards.
6. **Hazard/Flood Insurance.** That the property owners may be subject to higher hazard/flood insurance rates due to coastal hazard risks and issues.
7. **GHADs/CSAs.** That a Geologic Hazard Abatement District (GHAD) and/or County Service Area (CSA) and/or similar entity may be formed in the future by the County (and/or another public agency and/or a private group) to address coastal hazards and coastal shoreline resource protection

along the shoreline and related area of which the properties are a part, and assessments may be proposed as part of such efforts for the abatement of coastal hazards and the protection of coastal shoreline resources, including most importantly public shoreline, offshore, and sandy beach recreational access areas.

- 8. Future Adaptation.** That development on the affected properties, including shoreline protective devices on- or off-site protecting such properties, may be required to be modified in the future to address coastal hazards up to and including removal or relocation (in whole or in part) consistent with future LCP Shoreline Management Plan(s) applicable to the particular location.
- 9. Infrastructure Limitations.** That public funds may not be available in the future to repair, maintain, and/or continue to provide infrastructure and related services to the property (e.g., roads and utilities), and that the occupancy of structures may be prohibited if such services are no longer available to serve the development, including where sewage disposal and/or water systems are rendered inoperable.
- 10. Relocation/Removal Evaluation Triggers.** That the development shall be required to be relocated/removed and the site restored in response to certain defined triggers, including when deemed unsafe, when subject to public trust, when within 10 feet of the blufftop edge, when within 10 feet of the mean high-tide line, when no longer served by necessary utilities/infrastructure, when repeated damage would require significant alteration to major structural components, when coastal hazards would necessitate shoreline armoring, and/or as part of armoring repair/maintenance if not entitled to armoring.
- 11. Public Rights.** That approval of CDPs shall not constitute a waiver of any public rights that may exist on the affected properties. A CDP permittee shall not use any CDP approval as evidence of a waiver of any public rights that may exist on the affected properties now or in the future.
- 12. Armoring Waiver.** That shoreline armoring shall not be constructed to protect the development approved pursuant to the CDP, including in the event that the development is threatened with damage or destruction from coastal hazards in the future. The property owners hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such armoring that may exist under applicable law. The only allowable shoreline armoring for the site is that that is allowed by, and subject to the terms and conditions of, the CDP.

Policy 6.4.11 Relocation/Removal and Restoration Requirements

Development that is subject to coastal hazard risks shall be removed (and/or relocated to a portion of the property that meets applicable coastal hazards avoidance criteria) and the affected area restored to a natural condition if: (1) a government agency with legal jurisdiction has issued a final order, not overturned through any appeal or writ proceedings, determining that the structure is currently and permanently unsafe for occupancy or use due to damage or destruction from waves, flooding, erosion, bluff retreat, landslides, or other hazards related to coastal processes, and that there are no feasible measures that could make the structures suitable for habitation or use without the use of shoreline protective devices; (2) the development encroaches onto public trust land (including as the public trust migrates), unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and including any applicable leasing approval from the State Lands Commission or other designated trustee agency; (3) the blufftop edge (for blufftop development) or the mean high-tide line (for shoreline development) has migrated to within 10 feet of the structure; (4) site ingress/egress, access and utilities are no longer available to serve the development due to coastal hazard risks; (5) the development constitutes a recurring damage property; (6) coastal hazards are affecting the structure in a frequency and/or magnitude at which the structure requires the protection afforded by shoreline armoring, but does not meet the criteria for such armoring; and/or (7) as

part of the 5-year repair and maintenance provisions applicable to a shoreline protective device that is protecting a structure not entitled to armoring under this Chapter (see also Policy 6.4.6). All development subject to coastal hazards, including development where armoring is not removed as part of the project, shall include these restrictions as conditions of CDP approval, including all blufftop, bluff face, and shoreline development, and shall require bonding sufficient to cover such relocation/removal and restoration.

If relocation/removal is required, a Relocation/Removal and Restoration Plan (RRR Plan) shall be submitted to the County for review and approval. No removal activities shall commence until the RRR Plan and all other required plans and permits, including any necessary CDPs, are approved. The Plan shall specify that in the event that any portion of the development falls onto the bluff face, beach, shoreline, or into the ocean before it is removed/relocated, the property owners responsible for the development will remove all recoverable debris associated with the development from these areas and lawfully dispose of the material at an approved disposal site. If it is determined that separate permits, including CDPs, are required in order to authorize such activities, the permit/CDP applications shall be submitted as soon as immediately possible, including all necessary supporting information to ensure such applications are complete.

The RRR Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, and shall be implemented immediately upon County approval of required and related permit applications, as may be required.

Such immediate removal and restoration as it relates to shoreline protective devices shall not be required where removal would endanger public improvements or existing principal structures on adjacent sites to the degree that these improvements and structures would qualify for armoring under this LCP. In such cases, the existing shoreline protective device shall be removed and the affected area restored as soon as such removal and restoration can be accomplished without endangering public improvements and/or existing principal structures on adjacent sites (e.g., as adjacent sites redevelop, as adjacent sites are conditioned for future removal, etc.); 2) the existing shoreline protective device shall be modified to reduce its coastal resource impacts (e.g., restacking/removing riprap/rock revetments so as to open up additional beach space, contouring seawalls to improve public views, paying commensurate mitigation fees, etc.) without extending its useful life; and 3) and subject to bonding sufficient to cover such removal and restoration in the future.

Policy 6.4.12 Land Division in Areas Subject to Coastal Hazard Risks

Land division (including but not limited to resubdivision, creation of new lots, lot consolidation, and lot line adjustments) shall only be allowed in areas subject to coastal hazard risks if the resultant lot configuration provides for stable and safe building sites capable of being served by stable, safe, and appropriate infrastructure and related services on each lot as measured over at least a 100-year timeframe without any reliance of shoreline armoring, or if the intent and outcome of such division is to ensure the entirety of the resultant lots are protected for open space, habitat protection, and/or public recreational access purposes.

Policy 6.4.13 Highway 1

The public access and recreation utility of Highway 1 in the north coast between the County/City of Santa Cruz border in the south and the County/San Mateo County border in the north shall be provided in a manner that best protects coastal resources. The County shall develop, in coordination with Caltrans, the Coastal Commission, north coast residents and businesses, and other interested stakeholders, a Shoreline Management Plan for this segment of coast in conformance with Policy 6.4.15 to identify long-term solutions and visions for this corridor. The plan shall identify ways to ensure the corridor is safe from coastal hazard impacts with the least amount of impact on agricultural land,

wetlands, and beaches, with all impacts on these and other coastal resources appropriately and proportionally mitigated.

Policy 6.4.14 Potential Takings Analysis

Where full adherence to all LCP provisions, including for setbacks and other coastal hazard avoidance measures, would preclude a reasonable economic use of property in such a way as to result in an unconstitutional taking of private property without just compensation, the County or Coastal Commission (if on appeal) may allow some form of development that provides for the minimum economic use necessary to avoid an unconstitutional taking of private property without just compensation. There is no taking that needs to be avoided if the proposed development constitutes, creates, or is expected to lead to a nuisance, or is otherwise prohibited pursuant to other background principles of property law (e.g., public nuisance, public trust doctrine, etc.). Continued use of an existing structure or other development, including with any permissible repair and maintenance, may provide a reasonable economic use. If development is allowed pursuant to this policy, it must be consistent with all LCP provisions to the maximum possible extent.

Policy 6.4.15 Shoreline Armoring Exception Area Standards

Blufftop development within the Shoreline Armoring Exception Area shall be consistent with all provisions specified above except that such development may rely on existing and/or proposed shoreline protective devices. Such development shall only be allowed if the proposed development, along with any required mitigations, enhances coastal resources and provides a coastal resource improvement over the existing baseline. Policy 6.4.15 shall expire on, and be of no further force and effect after, January 1, 2040, at which time all new blufftop development in this area shall either be reviewed against the policies of a Coastal Commission-certified LCP Shoreline Management Plan applicable to the area, or, if no such Shoreline Management Plan has been approved by the Coastal Commission, by all other Coastal Hazards policies of the LUP. Policy 6.4.15's effectiveness shall be stayed pending Coastal Commission action on such Shoreline Management Plan so long as the County has submitted a full LCP amendment application sufficient to allow it to be filed by Commission staff by January 1, 2039.

Policy 6.4.16 Shoreline Management Plans

The County shall develop comprehensive Shoreline Management Plans (SMPs) organized by appropriate geophysical conditions designed to protect and enhance public shoreline, offshore, and sandy beach recreational areas for public use and enjoyment while also recognizing that these same areas (and public infrastructure and private development within and adjacent to them) affect and are affected by coastal hazards.

Each SMP shall apply to a specific County shoreline area that shares common characteristics, including characteristics related to both the built and natural environments, where the intent is to provide a prescriptive blueprint and vision for each such area (and all County shoreline areas overall) that can appropriately respond to coastal hazards in a way that protects and enhances the County's shoreline for public use and enjoyment. As such, the SMPs shall be required to be certified as part of the LCP, and are intended to provide enforceable direction for new development as well as any development approved pursuant to this chapter that is conditioned to comply with the requirements of a future SMP.

The County shall work with all affected property owners, residents, visitors, the Coastal Commission, and other interested parties in developing the SMPs. Overall, each SMP shall identify the short, medium, and long-term goals for the specified area, both in terms of hazard reduction and maintenance and enhancement of public access and environmental resources as sea level rises, and shall include the management actions necessary to achieve these objectives. Each plan shall identify the priorities for shoreline management, including policy approaches, LCP overlay zoning districts, design requirements, specific projects to be implemented, and so on, along with the relevant timelines, phasing, and action

Exhibit 2

triggers necessary to adapt to changes in coastal hazards due to sea level rise. Management actions shall account for both existing and future development.

Each SMP shall include the following components and address the following topics:

- **Existing and Future Conditions.** Describe the relevant shoreline area in terms of its resources and constraints. Identify baseline conditions in terms of existing public and private development; shoreline, sandy beach, and offshore public access and recreational areas; and environmental resources. Include an assessment of beach widths throughout tidal and seasonal ranges. Additionally, analyze how conditions are expected to change as coastal hazards (including short and long-term erosion and flooding) are exacerbated by sea level rise. Describe how the presence or absence of development and shoreline armoring would impact conditions over the long-term, particularly how such development would or would not allow for natural migration of beaches over time and impact public use and availability of the shoreline. Identify areas where beaches would likely be able to persist if able to migrate as sea levels rise versus those areas where the geology is such that it is unlikely to allow for the continued presence of beaches.
- **Goals and Actions.** Describe the overall vision for the area over the short, medium, and long-term horizon. This vision shall relate to the opportunities and constraints identified above, and shall include specific goals and actions for protection of public access and coastal resources and minimization of coastal hazard risks. SMPs shall provide requirements for adapting existing and future development, including public and private structures, community infrastructure, coastal accessways, and other shoreline area development to meet specific goals in line with the overall vision of the SMP. Strategies shall include but are not limited to sediment management, beach nourishment, green infrastructure, shoreline armoring, elevation of development, structural modifications, and removal of development. Additionally, the SMP shall identify the timeline over which different options may be used, including how different strategies would be phased over time, and shall explicitly define triggers for when different adaptation options would need to be implemented. The SMPs shall also describe the policy options (land use and zoning requirements, development approval conditions, deed restrictions, design guidelines etc.), specific projects, and funding mechanisms necessary to ensure adaptation actions are carried out.
- **Sandy Beach Areas.** SMPs for areas where public beach access is likely to be limited and eventually lost due to the presence of development that prevents natural beach formation shall focus on strategies that will result in the removal of development to allow for natural beach migration processes. SMPs for these sandy beach areas shall include the following:
 - **Minimum Sandy Beach Widths.** An analysis of the minimum width of sandy beach necessary to maintain optimum public recreational access and habitat function. This analysis shall include considerations of daily tidal range, seasonal erosion, and short term, storm driven erosion when determining optimum beach widths. Additionally, the analysis shall assess the types of adaptation strategies, including but not limited to sediment management, beach nourishment, and removal of development, along with appropriate triggers for when different adaptation strategies should be implemented to ensure that minimum sandy beach widths are maintained over time as sea levels rise.
 - **Sandy Beach Monitoring.** The SMP shall establish a program to monitor the width of the beach as well as recreational access, sandy beach use, and habitat values throughout the year and over time. The monitoring program shall identify and track locations, times, and durations throughout the year when the sandy beach is too narrow to be adequate for public recreation and/or lateral access. Such monitoring will ensure that the minimum beach width established through the analysis above is adequate for maintaining public access and coastal resource values and will

provide the necessary information for when adaptation triggers are met, as described below.

- **Sandy Beach Adaptation.** Each SMP shall identify the suite of actions and programs that will be implemented over time to maintain sandy beach utility. The SMP shall also include explicit triggers for sediment management, beach nourishment, structure removal, and/or alternative strategies that are designed to ensure that the identified minimum sandy beach width is maintained. The SMP shall identify “maintenance” triggers for when beach nourishment or related strategies to protect sandy beach areas should occur as well as “adaptation” triggers for when new adaptation strategies will have to be implemented in order to preserve beach recreational access as sea levels rise and erosion worsens.
- **Alternative Access Areas.** SMPs for areas where geologic conditions will limit the ability of sandy beaches to persist (even without the presence of development and shoreline armoring) shall identify options to allow for alternative types of shoreline access. Such options may include, but are not limited to, vertical access to rocky shorelines or to the water, lateral access along blufftops or as part of shared vertical seawalls, viewing platforms, and parks. SMPs shall identify preferred locations for such features and tools for ensuring such features are constructed (e.g. conditions of development, design requirements for shoreline armoring, acquisition of easements or other areas, removal of structures). Additionally, SMPs shall identify and describe how such features should be adapted and modified over time as sea levels rise to ensure access is maintained over time.
- **Funding Opportunities.** Identification of potential funding opportunities to support short, medium, and long-term adaptation options. This shall include funding for implementation of specific adaptation projects (e.g. sediment management, beach nourishment, green infrastructure, habitat restoration), construction of public access features, the purchase of deed restrictions, easements, or similar interests, and structural buyouts and related opportunities for acquisition and removal of structures encroaching within the established sandy beach area. Potential funding opportunities may include in-lieu fees (including those generated from mitigation for shoreline armoring per Policy 6.4.6), grants, or other state or federal funds. Opportunities to integrate adaptation strategies with other planning processes (e.g. Local Hazard Mitigation Plans, Capital Improvement Plans, Climate Action Plans) in order to leverage such funding options shall also be explored.
- **GHADs/CSAs.** Identification of measures necessary to support creation of Geologic Hazard Abatement Districts, County Service Areas, or other similar entities involving one or more sections of the coastline, as a preferred mechanism for implementation of SMP requirements.

In addition, the County shall also develop an overall County SMP that addresses all of the same requirements of the individual SMPs, but that takes into account cumulative and overall consequences of potential actions taken, including so as to inform the individual SMPs and to identify potential regional minimum requirements and/or mitigation strategies.

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~~Coastal Bluffs and Beaches~~

~~Policies~~

~~6.2.10 Site Development to Minimize Hazards~~

~~(LCP) Require all developments to be sited and designed to avoid or minimize hazards as determined by the geologic hazards assessment or geologic and engineering investigations. (Revised by Res. 81-99)~~

~~6.2.11 Geologic Hazards Assessment in Coastal Hazard Areas~~

~~(LCP) Require a geologic hazards assessment or full geologic report for all development activities within coastal hazard areas, including all development activity within 100 feet of a coastal bluff. Other technical reports may be required if significant potential hazards are identified by the hazards assessment. (Revised by Res. 81-99)~~

~~6.2.12 Setbacks from Coastal Bluffs~~

~~(LCP) 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. (Revised by Res. 81-99)~~

~~6.2.13 Exception for Foundation Replacement and/or Upgrade~~

~~(LCP) Foundation replacement and/or foundation upgrades that meet the definition of development activity shall meet the 25 foot minimum and 100 year stability setback requirements. An exception to those requirements may be granted for existing structures that are located partly or wholly within the setback if the Planning Director determines that:~~

~~(1) the area of the structure that is within the setback does not exceed 25% of the area of the structure, OR~~

~~(2) the structure cannot be relocated to meet the setback due to inadequate parcel size. (Revised by Res. 81-99)~~

~~6.2.14 Additions to Existing Structures~~

~~(LCP) Additions, including second story and cantilevered additions, shall comply with the setback requirements of 6.2.12. (Revised by Res. 81-99)~~

~~6.2.15 New Development on Existing Lots of Record~~

~~(LCP) Allow development activities in areas subject to storm wave inundation or beach or bluff erosion on existing lots of record, within existing developed neighborhoods, under the following circumstances:~~

~~(a) A technical report (including a geologic hazards assessment, engineering geology report and/or soil engineering report) demonstrates that the potential hazard can be mitigated over the 100 year lifetime of the structure. Mitigations can include, but are not limited to, building setbacks, elevation of the structure, and foundation design;~~

~~(b) Mitigation of the potential hazard is not dependent on shoreline or coastal bluff protection structures, except on lots where both adjacent parcels are already similarly protected; and~~

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~~(c) — The owner records a Declaration of Geologic Hazards on the property deed that describes the potential hazard and the level of geologic and/or geotechnical investigation conducted. (Revised by Res. 81-99)~~

~~6.2.16 Structural Shoreline Protection Measures~~

~~(LCP) — Limit structural shoreline protection measures to structures which protect existing structures from a significant threat, vacant lots which through lack of protection threaten adjacent developed lots, public works, public beaches, or coastal dependent uses.~~

~~Require any application for shoreline protection measures to include a thorough analysis of all reasonable alternatives, including but not limited to, relocation or partial removal of the threatened structure, protection of the upper bluff or area immediately adjacent to the threatened structure, engineered shoreline protection such as beach nourishment, revetments, or vertical walls. Permit structural protection measures only if non-structural measures (e.g. building relocation or change in design) are infeasible from an engineering standpoint or not economically viable.~~

~~The protection structure must not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, increase erosion on adjacent properties, or cause harmful impacts on wildlife and fish habitats or archaeological or paleontological resources.~~

~~The protection structure must be placed as close as possible to the development requiring protection and must be designed to minimize adverse impacts to recreation and to minimize visual intrusion.~~

~~Shoreline protection structures shall be designed to meet approved engineering standards for the site as determined through the environmental review process.~~

~~Detailed technical studies shall be required to accurately define oceanographic conditions affecting the site. All shoreline protective structures shall incorporate permanent survey monuments for future use in establishing a survey monument network along the coast for use in monitoring seaward encroachment or slumping of revetments or erosion trends.~~

~~No approval shall be given for shoreline protective structures that do not include permanent monitoring and maintenance programs. Such programs shall include a report to the County every five years or less, as determined by a qualified professional, after construction of the structure, detailing the condition of the structure and listing any recommended maintenance work. Maintenance programs shall be recorded and shall allow for County removal or repair of a shoreline protective structure, at the owner's expense, if its condition creates a public nuisance or if necessary to protect the public health and safety. (Revised by Res. 81-99)~~

~~6.2.17 Prohibit New Building Sites in Coastal Hazard Areas~~

~~(LCP) — Do not allow the creation of new building sites, lots, or parcels in areas subject to coastal hazards, or in the area necessary to ensure a stable building site for the minimum 100-year lifetime, or where development would require the construction of public facilities or utility transmission lines within coastal hazard areas or in the area necessary to ensure a stable building site for the minimum 100-year lifetime.~~

~~6.2.18 Public Services in Coastal Hazard Areas~~

~~(LCP) — Prohibit utility facilities and service transmission systems in coastal hazard areas unless they are necessary to serve existing residences. (Revised by Res. 81-99)~~

~~6.2.18.1 Density Calculations~~

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~~(LCP) Exclude areas subject to coastal inundation, as defined by geologic hazard assessment or full geologic report, from use for density calculations. (Added by Res. 81-99)~~

~~6.2.19 Drainage and Landscape Plans~~

~~(LCP) Require drainage and landscape plans recognizing potential hazards on and off site to be approved by the County Geologist prior to the approval of development in the coastal hazard areas. Require that approved drainage and landscape development not contribute to offsite impacts and that the defined storm drain system or Best Management Practices be utilized where feasible. The applicant shall be responsible for the costs of repairing and/or restoring any off-site impacts.~~

~~6.2.20 Reconstruction of Damaged Structures on Coastal Bluffs~~

~~(LCP) Permit reconstruction of structures on or at the top of a coastal bluff which are damaged as a result of coastal hazards, including slope instability and seismically induced landslides, or are damaged by non-coastal related hazards (fire, etc.) and where the loss is less than 50 percent of the value, in accordance with the recommendations of the hazards assessment. Encourage relocation to a new footprint provided that the new location is landward of the previous site at the best possible site not affecting resources (e.g. the most landward location, or landward of the area necessary to ensure a stable building site for the minimum 100-year lifetime, or not necessitating a future shoreline protective structure).~~

~~When structures located on or at the top of a coastal bluff are damaged as a result of coastal hazards, including slope instability and seismically induced landslides, and where the loss is greater than 50 percent of the value, permit reconstruction if all applicable regulations can be met, including minimum setbacks. If the minimum setback cannot be met, allow only in-kind reconstruction, and only if the hazard can be mitigated to provide stability over a 100-year period.~~

~~For structures damaged by other than coastal hazards, where the loss is greater than 50% of the value, allow in-kind reconstruction, subject to all regulations except for the minimum setback. Allow other than in-kind reconstruction only if the minimum setback is met.~~

~~Exemption: Public beach facilities and replacements consistent with Coastal Act Policy 30610(g). (Revised by Res. 81-99)~~

~~6.2.21 Reconstruction of Damaged Structures due to Storm Wave Inundation~~

~~(LCP) Permit reconstruction of individual structures located in areas subject to storm wave inundation, which are damaged as a result of coastal hazards, and loss is less than 50 percent of the value, in accordance with recommendations from the geologic hazards assessment and other technical reports, as well as with policy 6.2.16.~~

~~When structures located in areas subject to storm wave inundation are damaged as a result of coastal hazards and the loss is greater than 50 percent of the value, permit reconstruction if all applicable regulations can be met. If the minimum setback cannot be met, allow only in-kind reconstruction, and only if the hazard can be mitigated to provide stability over a 100-year period.~~

~~For structures damaged greater than 50 percent of the value by other than coastal hazards, allow in-kind reconstruction which meets all regulations except for the coastal bluff setback. Allow other than in-kind reconstruction only if the minimum setback is met.~~

~~Exceptions: Public beach facilities and replacements consistent with Coastal Act Policy 30610(g). (Revised by Res. 81-99)~~

Programs

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~~(LCP) a. — Relocate if feasible, essential public facilities such as sewer lines to locations outside of coastal hazard areas when they are due for expansion or replacement. (Responsibility: Public Works)~~

~~b. — Zone areas subject to coastal erosion, inundation, and potential bluff failure to the Geologic Hazards Combining district. (Responsibility: Planning Department)~~

~~(LCP) c. — Develop and implement a program to correct existing erosion problems along coastal bluffs caused by public drainage facilities. (Responsibility: Public Works)~~

~~d. — Review existing coastal protection structures to evaluate the presence of adverse impacts such as pollution problems, loss of recreational beach area, and fishkills and implement feasible corrective actions. (Responsibility: Environmental Health, Planning Department)~~

~~(LCP) e. — Support, encourage, and seek funding from FEMA and other appropriate agencies for the initiation of a review of all shoreline protective structures to evaluate their effectiveness and potential for becoming public hazards. Shoreline protective structures can become public hazards, for example, if they are in such a state of disrepair that portions have fallen or are in imminent danger of falling onto beaches. Where it is determined that such structures are public hazards or where they provide ineffective protection due to inadequate maintenance, consider notifying the property owner and requiring the property owner to either maintain the structure to a reasonable level or remove and replace the structure within one year of the notice. Consider County action to maintain or remove and replace the structure and recover costs by a lien against the property if the property owner does not act within one year of such notice. (Responsibility: Planning Department, Board of Supervisors)~~

~~(LCP) f. — Support, encourage, seek funding, and cooperate with the Coastal Conservancy, Coastal Commission, State Lands Commission, and the Corps of Engineers for the establishment and maintenance of a permanent survey monument monitoring network along the coast. Utilize existing monuments set by Caltrans, other public agencies, geologic consultants, and others to the greatest degree possible. Incorporate the use of these monuments into all future planning for shoreline protective structures. Provide georeference (latitude and longitude) for each monument and structure. (Responsibility: Planning Department, Public Works)~~

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COASTAL BLUFFS AND BEACHES: INFORMATION AND REVIEW OF POLICY INTENT

Coastal communities are particularly vulnerable to impacts from sea level rise and hazards that result from extreme weather, including flooding and inundation, erosion, and wave impacts. State law and current scientific projections regarding climate change and sea level rise require that the County update policies related to development on coastal bluffs and beaches, and relationship of such to shoreline and coastal bluff armoring, in order to acknowledge and incorporate sea level rise into development standards and into conditions of approval that apply to projects proposed on sites subject to coastal hazards. Policies are needed to guide regulatory responses by the County and Coastal Commission to proposed changes on existing developed properties due to involuntary damage (from coastal hazards or other hazards such as fire), as well as to proposed demolition/replacement projects or reconstructions that are pursued voluntarily by property owners. Policies are also needed to address projects that involve only existing shoreline protection structures themselves, such as proposals to maintain, rehabilitate or replace such structures in a manner that would reduce existing impacts on coastal resources, or that would act to protect critical public infrastructure. Areas that are anticipated to accommodate shoreline protection structures in the mid-to-longer term are considered to be "shoreline protection exception areas", which would be designated only within certain portions of the existing urbanized area of unincorporated Santa Cruz County.

Much of the Santa Cruz County coastline, particularly in the urbanized developed areas, has some level of armoring (walls, riprap, etc.). The primary type of coastal armoring in this area is riprap, but concrete, steel, wood, and gabion basket armoring also exist. Such improvements are themselves considered "structures" and some of the protection structures existed (within "existing developed areas") prior to the Coastal Act. Some of these structures are well-maintained and some less so, with varying levels of impacts on coastal resources depending upon condition and location.

East Cliff Drive is located within an urbanized area that was an existing developed area at the time the Coastal Act was adopted, and it is one of the four primary east-west transportation corridors in Santa Cruz County which include Highway One, Soquel Drive/Avenue, the Santa Cruz Branch Rail Line (not presently used for but publicly owned and planned for multi-modal transportation) and East Cliff Drive/Portola Drive/Opal Cliffs Drive. East Cliff Drive, along with its transition as it becomes Opal Cliffs Drive, connects the Santa Cruz Harbor area to the Capitola Village area. A modern seawall has been constructed by the County of Santa Cruz in the Pleasure Point area along East Cliff Drive that should greatly reduce potential damage from coastal erosion to East Cliff Drive as well as the homes on the inland side of the road. This seawall is featured in the Coastal Commission's Sea Level Rise Guidance document as a model and desired approach for protecting public access and scenic and visual qualities when armoring is necessary and allowable. Transition to this type of seawall between Pleasure Point and the City of Capitola city limits, which is considered to be a "shoreline protection exception area" is a desired outcome for this portion of the urbanized coastal area of Santa Cruz County, which will open up more beach and shoreline area through removal of rip rap and the like, avoid future deposition of emergency protection that is typically rip rap, reduce visual impacts, and increase coastal access for the general public.

It is not uncommon for East Cliff Drive, a key arterial road, to be closed or damaged where it crosses Schwann Lake, Corcoran Lagoon and Moran Lake during large winter storms. In flood hazard areas it is not appropriate to construct hard armoring structures that divert or block flood waters or that artificially modify lagoon areas. Future sea level rise may require that bridges be built to cross the lagoon frontages, if it is necessary to maintain the East Cliff Drive transportation corridor in either the current or a nearby/modified road location. Such bridges would be designed to maximize lagoon function.

Expectations about the "design life" of improvements are an important consideration when establishing policies related to coastal bluff and other development on an eroding coastline. County policies in the 1994 General Plan/Local Coastal Program required throughout the unincorporated area a geologic setback from

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the top of a coastal bluff of 25 feet or a setback sufficient, at the time of application submittal, to provide a building site for an assumed 100-year design life of the structure, whichever is greater. Updated County policies require evaluation of the geologic setback for development projects on coastal bluffs considering not only historical shoreline and bluff retreat data, but also acceleration of shoreline and bluff retreat due to continued and accelerated sea level rise, and other climate impacts according to best available science. The level of uncertainty regarding the rate and amount of future sea level rise and future effects on coastal properties makes it difficult to predict when, where, and how much the coast will change in the future. Current reasonable professional projections for the Santa Cruz coastal area (State of Californian Sea Level Rise Guidance 2018 medium risk aversion scenario for Monterey tide gauge), are 0.9 feet of sea level rise from the year 2000 conditions to 2040, and 3.1 to 4.3 feet from year 2000 conditions to the year 2100. In that this Safety Element is intended to address the 2020 to 2040 timeframe, an adaptive approach is reflected that anticipates refinement of policies in the future with subsequent update(s), as well as an implementation of policies and requirements within the 2020-2040 timeframe for conditioning and mitigating impacts of coastal developments.

The updated Safety Element includes new policies and requirements for development projects subject to coastal and geologic hazards. A key principle is "private internalization of the risks and costs of improving, maintaining and abating development projects/structures on sites that are subject to coastal hazards", so that the public (governments, taxpayers, insurance policyholders) are not the parties who ultimately bear the costs of private property owner investment decisions when the time comes that it is environmentally, practically and economically infeasible to continue the existence of portions or all of structures/improvements subject to coastal hazards. Property owners will be required to acknowledge and accept the risk of building along the coast within a context of rising sea levels. In this way, it is expected that property owners and future buyers and financiers of property along the coast will be well aware of and prepare for such risks, including potential future costs of adaptation, mitigation of on-going impacts on coastal resources, and eventual privately-funded removal of structures that can no longer feasibly exist due to sea level rise. Another key principle is to foster coordination between property owners along similarly-situated portions of the coastline, to pursue coordinated shoreline protection projects where such currently predominantly exist (i.e. within designated "shoreline protection exception areas", so that privately-financed replacement projects can greatly reduce impacts on coastal resources and improve public access, while also acting to protect critical public accessways and infrastructure so that local government/agencies may prioritize financial resources to other climate change adaptive responses (avoiding forest fires, managing flood risks, relocating pump stations, building bridges, and so forth).

Although shoreline armoring may reduce or delay coastal erosion processes as long as it remains functioning, ultimately coastal erosion continues, periodic maintenance and repair is needed, and shoreline armoring devices may eventually fail, especially as storm surge and episodic wave action destroys and/or impacts improvements. At some point in the future, which is not expected to occur within the 20-year term of this Safety Element (2020-2040) coastal erosion processes may overwhelm the capacity of shoreline and coastal bluff armoring, in terms of feasibility from both physical and cost considerations. Existing regulatory tools such as the Building Code provide legal mechanisms for local government to react to evolving conditions by requiring non-occupancy and/or removal of all or portions of a building or shoreline armoring device with consideration of any secondary impacts of such removal. Policies in this Safety Element establish "triggers" for when local officials will require private property owners to hire geologic and engineering professionals to more closely manage the required responses by owners of threatened properties, in order to protect public health and safety and coastal resources (i.e. protection of the structure itself is a lesser or deemed irrelevant priority).

While shoreline armoring remains in place, it modifies coastal erosion, coastal processes, and sand transport through the reduction of wave erosion energy, or reflection or refraction of wave energy. For example, focused erosion can occur at the ends of the armoring. More broadly, shoreline armoring has impacts on

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natural shoreline processes, including ultimately a loss of beach and public recreational opportunities in many areas, and thus the use of armoring as a response to coastal hazards must be carefully examined in this context. While shoreline armoring can be helpful in protecting against coastal erosion, proper setbacks from the brow of bluffs, drainage control, and special construction are all necessary to protect structures, roadways, and utilities from damage for the duration of the expected design life of the improvements.

Different Contexts: Within Urbanized Areas, Rural Areas, Areas of Lower Sandy Bluffs and Beaches, and Areas Subject to Different Geology/Geography

A fundamental land use policy of Santa Cruz County since adoption of the Measure J growth management framework in 1978 is to encourage new development to locate within existing developed urban areas, and to protect agricultural land and natural resources. Santa Cruz County has a long established Urban and Rural Services Line (USL/RSL) which defines an area of the county characterized by urban densities of development based on a pattern of existing supporting urban infrastructure. In contrast, areas along the coast that are not within the USL/RSL are characterized by low-intensity development, agriculture and open space. However, geologic and geographic contexts are not uniform within either the urban service area, rural service areas, or areas outside of the USL/RSL boundaries, especially for development built on/at beach level or on/along coastal lagoons. Along the coast the USL includes the communities of Live Oak, Soquel and Aptos/Seacliff/Rio del Mar, including the Beach Drive, Pot Belly Beach and Las Olas areas. The RSL includes locations that reflect urban patterns of development within more rural contexts, including La Selva Beach, Place de Mer, Sand Dollar Beach, Canon Del Sol, Sunset Beach, Via Gaviota and Pajaro Dunes. Projects located on beaches must be restricted to maximum permissible "elevation strategies" to elevate structures above coastal flood waters and hazards, which generally is established as a "one non-habitable story" amount of elevation (i.e. approximately 10 feet), and height variances to accommodate structural elevations for replacement/redeveloped structures should not exceed approximately 10 feet in any case and may be lower in certain locations to prevent impacts on coastal resources. This applies to projects on beaches where habitable portions of new structures are required to be elevated above flood levels, and not to projects on coastal bluff where new structures are required to be setback from the eroding bluff edge. In summary, the policy objectives reflected in this Safety Element are different depending upon history, location, urbanized character, and geologic/geographic context.

The area of the County along the coast within the USL is essentially urbanized and dominated by single-family residential development on top of coastal bluffs and on beaches or back beach areas. The USL boundary at the west is the Santa Cruz Harbor coastal resource and City of Santa Cruz city limit. The boundary at the east extends to and includes the community of Seascape. This urbanized area along the coast includes the City of Capitola city limits, and the Capitola shoreline is currently protected with rip rap, and coastal bluff armoring within the key coastal visitor serving resource of Capitola Village. This urbanized area along the coast also contains critical public infrastructure such as roads, sewer, water supply, drainage, parking lots and train tracks. In many areas, such as along Opal Cliffs Drive, only one row of residential lots establishes a buffer between public roads and infrastructure and the coastal bluff and beach. Those existing roads and infrastructure improvements support public access to the coast, and support structures, businesses and economic activity related to visitor accommodations and tourism, a key job and business sector for Santa Cruz County. As the existing homes become threatened by coastal bluff erosion it will be important to consider how the homes can be protected while also preserving infrastructure and increasing public access to the coast.

Shoreline and coastal bluff armoring are common within the USL/RSL, currently protecting about one-half of the existing urbanized area along the coast. These urban areas are part of an historical pattern of development that has been present for decades along the County's coast, and most of this urban development occurred before the Coastal Act became effective in 1977. The currently existing types of shoreline and coastal bluff armoring include natural stone riprap, concrete or wood retaining walls, gabion baskets, and concrete riprap of various shapes and sizes. Some of these existing measures take up areas of

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the beach that otherwise would be available to the public (at least in the near- to mid-term before sea level rise may consume the shoreline in certain locations), some have more visual impacts than others, and some are better-maintained than others.

Shoreline and coastal bluff armoring are not common outside of the urbanized coastal areas of Santa Cruz County. Armoring that does exist for development that has been built on or along beaches and coastal lagoons can have greater impacts on coastal resources. Given the distinctly different contexts that exist within the unincorporated area, the proposed coastal bluffs and beaches and armoring policies reflect a “hybrid approach”, with “managed natural retreat” (“MNR”) establishing the regulatory approach in the rural areas, beach and lagoon areas being subject to different FEMA-influenced regulations, and “conditional accommodation, acceptance of risk, and adaptation” (“AAA”) establishing the regulatory approach in certain urbanized areas. However, the AAA policies themselves differentiate between coastal bluff sites involving the less-erodible Purisima rock formation (e.g. higher existing bluffs along Opal Cliffs Drive that are included within a designated "shoreline protection exception area" or “SPEA”) and more-erodible sandy coastal bluff areas that are typically shorter and typically adjacent to higher-value coastal shorelines accessed by the public.

Objective

The objective of the coastal bluffs and beaches policies is to recognize and reasonably minimize risks to life, property, and public infrastructure in coastal hazard areas; and to minimize and mitigate for adverse impacts on coastal resources from permitted development within coastal hazard areas. Meeting this objective requires a careful balancing of impacts on public vs. private resources and investments, with appropriate mitigation based upon principles of nexus and proportionality consistent with the Coastal Act.

The approach of the County is one of balance: while climate change, sea level rise, and damage from greater storm wave attacks are realities; a practical and reality-based adaptive approach that recognizes different contexts and histories of sub-areas is necessary, given applicable legal and political constraints.

A key goal over the stated 20-year timeframe of the 2020 Safety Element is to “get ready” and have property owners obligated to “internalize private property owner risks and future costs of adaptation” so that the public does not bear costs or obligations. In order to establish this platform over the next twenty years, it is considered reasonable to allow property owners in certain defined areas to pursue new homes or redevelopment/replacement of existing homes only if subject to limitations and mitigations, unless located within a designated Shoreline Protection Exception Area or an adopted Shoreline Management Plan provides otherwise. Property owners would continue to be allowed to remodel, do smaller (<50%) additions, and maintain and repair their homes and existing shoreline protection structures. Property owners within the USL/RSL but outside of the SPEA would be allowed one “new” or reconstruction/redevelopment project in the future, but proposed major projects of that type would be subject to different standards, limitations and mitigations after that, and may not be approved based upon then-existing conditions. In exchange for approvals of coastal development permits that allow “new” homes or “redevelopment/replacement” (>50%) activity on properties that are also reliant on shoreline or coastal bluff armoring, a property owner must accept a package of conditions that include payment of sand mitigation in-lieu fees, recreation in-lieu fees, and otherwise minimizing public impacts and costs. Also, while Coastal Development Permits would not expire, conditions and/or terms of monitoring, maintenance, and repair programs would be written in such a way that there is a check-in every 20 years (or less time as may be warranted in the future), and a new phase of mitigation obligations may be imposed based on conditions/impacts on coastal resources that are occurring at the time of the check-ins.

The Coastal Act actually anticipated the difficulty of creating policy along the diverse coastline of California. It recognizes that at times, Coastal Act policies may conflict, and it is difficult to balance

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achievement of competing interests. Notably, Section 30007.5 of the Coastal Act (“Legislative findings and declarations; resolution of policy conflicts”) provides guidance for such balancing:

“The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, **serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.**” [bold text emphasis added]

Other key provisions of the Coastal Act which provide guidance for policy development include sections 30001(c) and (d) (regarding “Legislative findings and declarations; ecological balance”), which finds and declares:

(c) “That to promote the public safety, health and welfare, and to protect public and private property, wildlife, marine fisheries, and other ocean resources, and the natural environment, it is necessary to protect the ecological balance of the coastal zone and prevent its deterioration and destruction.”

(d) “That existing developed areas, and future developments that are carefully planned and developed consistent with the policies of this division, are essential for the economic and social well-being of the people of this state and especially to working persons employed within the coastal zone”. [emphasis added]

Section 30001.5 of the Coastal Act (“Legislative findings and declarations; goals”) includes the following goals for the coastal zone, and includes both natural and man-made (“artificial” or developed) resources: [Bold text emphasizes point that development was anticipated with "balance of developed & natural" policy basis; bolding not intended to minimize importance of natural coastal resources.]

- a. **Protect, maintain, and where feasible, enhance and restore the overall quality of ... its natural and artificial resources.**
- b. **Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.**
- c. **Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.**
- d. **Assure priority for coastal-dependent and coastal-related development over other development on the coast.**

County of Santa Cruz Coastal Bluffs and Beaches Guiding Principles

Key information and guiding principles related to coastal bluffs and beaches, and shoreline and coastal bluff armoring, which have guided formation of policies, include the following considerations supporting a “hybrid approach”. The approach reflects a strategy of “managed natural retreat” (“MNR”) for rural, agricultural and open space areas, as well as for developments located on beaches and along coastal lagoons, and of “conditional accommodation, acceptance of risk, and adaptation” (“AAA”), also known as “incentivized managed retreat”, for existing developed areas within the Urban and Rural Services Lines. However, the AAA Guiding Principles differentiate between coastal bluff sites involving the less-erodible portions of the Purisima rock formation (e.g. higher existing bluffs along Opal Cliffs Drive) and more-erodible coastal bluff areas backing the beaches between the harbor and Pleasure Point and the south county beaches (typically adjacent to higher-value coastal shorelines accessed by the public).

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GUIDING PRINCIPLES: REGULATION OF PROPOSED DEVELOPMENT ACTIVITIES ON COASTAL BLUFFS & BEACHES

- At the time the Coastal Act was effective in 1977, the urbanized areas of Santa Cruz County were largely developed in a similar form as today, and as of 2020 approximately one-half of the properties within the urbanized area (within the Urban and Rural Services Lines) are protected by some form of shoreline and coastal bluff armoring. Recognize that the 2020 update of policies and regulations for coastal bluffs and beaches does not affect terms of existing permits for shoreline and coastal bluff armoring unless a triggering event occurs such as a proposed development project or work that exceeds the scope of authorized maintenance and repair. Such armoring is typically subject to requirements for monitoring, maintenance and repair – which also confers an expectation of and a reasonable right to such monitoring, maintenance and repair activity.
- For certain urbanized properties along East Cliff Drive Parkway/Opal Cliffs Drive between Soquel Point (from and including APN 028-304-72 at the upcoast boundary) and Capitola city limit (downcoast boundary), which are located on less-erodible taller coastal bluffs (predominately Purisima Formation rock/geology) and which were predominately urbanized prior to approval of the Coastal Act, it is not considered reasonable or feasible to expect that existing legally permitted shoreline and coastal bluff armoring will be removed or cease to exist within the immediate or near future, even in the face of climate change and sea level rise. Nearly all of these properties with existing shoreline protection structures would have adverse impacts on adjacent properties/structures if existing shoreline protection is removed within the twenty-year timeframe of this Safety Element. Therefore, the goal for this geographic area is to maintain, rehabilitate and/or replace existing shoreline protection structures, and allow new shoreline protection structures, in a coordinated manner, largely at private expense, so that impacts on public coastal resources are reduced. This may include integration of existing shoreline protection structures with the new structures. Removal of a majority of existing rip rap and assorted disparate material, avoidance of emergency placement of rip rap, and mitigation of visual, beach, recreation and access impacts are broad goals for this area. However, any permitted armoring must be regularly monitored, properly maintained, and repaired when needed. This area would be designated as a Shoreline Protection Exception Area or “SPEA”.
- Recognize that the Coastal Act explicitly allows shoreline and coastal bluff armoring to be installed to protect existing structures and public beaches in danger from erosion, when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing structures, including but not limited to structures that existed prior to implementation of the Coastal Act in 1978, include roadways used to access coastal resources, critical public facilities such as water and sewer lines, and visitor-serving assets such as vacation rentals and commercial areas, in addition to private homes and other private improvements.
- Recognize that there is a different geologic/geographic context, even within the pre-Coastal Act urbanized areas within the USL/RSL, for developments/structures that exist on coastal bluffs and beaches and on/along coastal lagoons, due to greater impacts on valuable environmental and public coastal resources as well as greater vulnerability to sea level rise and associated risks. For these properties, unless located within a designated Shoreline Protection Exception Area or an adopted Shoreline Management Plan provides otherwise, allow new homes or "redevelopment/replacement" (defined as a project involving modification/reconstruction of 50% or more of major structural components of the structure or an addition of more than 50% of the existing habitable area of the structure for projects on coastal bluffs, as defined in SCCC 16.10) only as limited by this Public Safety Element and implementing coastal bluff and beaches provisions of the Santa Cruz County Code, and with mitigations. More strictly limit, or do not

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approve, new/replacement/reconstruction projects if structures on the site have been damaged by coastal processes.

- Recognize that the Coastal Act also recognizes that new development would occur after adoption of the Act in 1977, and that approved developments can be considered essential for economic and social well-being. New development within identified urbanized portions of the USL/RSL may be allowed to conditionally rely upon existing armoring, as determined appropriate through the coastal development permit process, however, new development outside of designated Shoreline Protection Exception Areas will be subject to stronger limitations on new or "replacement/redeveloped" homes for the 20-year timeframe of this 2020 Safety Element.
- Recognize that the Coastal Act and other land use laws require consideration of private property rights and ensure that policy and permitting decisions do not unduly expose the County of Santa Cruz to litigation.
- For projects located on coastal bluffs, beaches and lagoons, establish a threshold for requiring geologic review, as well as requirements for deed restriction, evaluation of existing armoring, and mitigation of the impact of existing armoring; to be projects that meet or exceed the definition of "development/development activities" as codified by Santa Cruz County Code Chapter 16.10 Geologic Hazards. This definition establishes the threshold for application of certain coastal bluffs and beaches policies (note that some projects may be considered "development" by Chapter 13.20 Coastal Regulations and may require a coastal development permit but may not meet the Chapter 16.10 definition of "development/development activities" with its 50% threshold that triggers assessment of consistency with these GP/LCP Coastal Bluffs and Beaches policies and implementing regulations). Those policies use the identifier, SCCC 16.10, after the term development to indicate the policy applies to development as defined in SCCC 16.10. This is to avoid confusion with the definition of development for purposes of the Coastal Zone Regulations (SCCC 13.20) and the need for a Coastal Development Permit, or "CDP". (California Code of Regulations §13252 provides that "maintenance" means less than 50% of a structure is worked on or improved; except that certain areas such as beaches, coastal lagoons and coastal bluffs are subject to more stringent permit requirements). Shoreline protection structures are also subject to different thresholds for being considered development that requires a CDP.
- Recognize that for projects located on beaches and dunes in flood hazard areas, the threshold for requiring geologic review, as well as requirements for deed restriction, evaluation and mitigation of the impact of existing armoring, and elevation of the structure above the flood hazard level, is established to be projects that meet or exceed the definition of substantial improvement found in Santa Cruz County Code Chapter 16.13 Floodplain Regulations. Additionally, establish policies to provide that development projects located on beaches must be restricted to maximum permissible "elevation strategies" for elevation of structures above waters and hazards, which generally is established as a "one non-habitable story" amount of elevation (approximately 10 feet), and height variances to accommodate structural elevations for replacement/redeveloped structures should not exceed approximately 10 feet in any case and may be lower in certain locations to prevent impacts on coastal resources.
- Recognize that it is the intention that developments on and along beaches and coastal lagoons are not protected by new coastal protection structures, and that impacts on coastal resources are generally greater from developments in these locations. In these areas strictly adhere to riparian setbacks requirements for development along coastal lagoons (GP/LCP 5.2.5).
- Recognize that existing legally permitted structures and armoring will continue to exist pursuant to existing valid coastal development permits and other historic and valid permits. New requirements can and shall only be imposed as a result of a triggering event pursuant to these policies including

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but not limited to an application for a new coastal development permit that exceeds a defined scope of work, a violation of County Code, or the structure or armoring becomes unsafe.

- Strive to avoid placement of new rip rap that is typically associated with “emergency permits”, in favor of early planning for construction of modern more-vertical armoring approaches in identified urbanized "shoreline protection exception areas" that would reduce or replace rip rap, in a manner that would lead to improved public access and improved visual resources during the planning horizon for the expected life of structures, when armoring is determined to be appropriate. Establish triggers for when property owners would be required to address imminent danger from coastal hazards.
- Recognize that roadways crossing the mid-County lagoons (Schwann, Corcoran, and Moran) are not candidates for seawall protection, and that future road designs for crossing the lagoons will likely require bridges if the roads are to continue in their current locations, which should be a priority adaptation project for the County and adjacent cities in light of regional significance.
- Recognize that the dredging practices of the Santa Cruz Port District, especially dredging spoils disposal location, have impacts to the amount of sand transported downcoast during winter months and to the amount of downcoast erosion. Work with the Santa Cruz Port District to implement dredging disposal policies which minimize downcoast impact and maximize beaches during high recreational seasons.
- Coordinate with jurisdictions in the County on a county-wide regional sediment management policy and plan.
- Pursue a “managed natural retreat” strategy within rural, agricultural and open space areas, which reflects accommodation of natural processes and policies which do not favor shoreline and coastal bluff armoring, with new development placed beyond a 75-year (100-year for critical structures) geologic setback line.
- Pursue an “adaptation” strategy within urbanized areas that conditionally accommodates improvements to and replacements of structures on coastal bluffs, but that emphasizes the risks due to sea level rise and increased coastal hazards. Implement different approaches within designated Shoreline Protection Exception Areas within the urbanized area, or for properties included within a Shoreline Management Plan that establishes Shoreline Protection Exception Areas for identified properties included in the Plan area. Impose more strict standards and limitations outside of those areas, including stronger mitigations or denial of projects for sites that have had structures damaged by coastal processes.
- Realize that adaptation will take place over decades, in light of past and existing conditions, private property rights, and uncertainty about future conditions; but prepare for the time that sea level rise and climate change will mean that development along the shoreline will need to be removed, and ensure that private property owners internalize the risks and ultimately bear the costs of adaptation and removal, if and when necessary based on conditions on the ground.
- Within identified urbanized areas, a primary goal is to establish a regulatory approach that will allow for replacement of existing armoring , where allowed, with modern measures that are considered near- to mid-term improvements. Strive to ensure that these measures are unified in appearance, remove rip rap as feasible to increase sandy beach areas, incorporate public access features as feasible, are colored and treated to better match natural materials, participate in programmatic mitigation approaches that fund priority investments in sand replenishment, public recreation and beach access, and provide funds for eventual removal of measures in the longer-term when repair and replacements are no longer feasible or appropriate.

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- Recognize that the County will periodically update the Safety Element and applicable regulations in order to reflect evolving conditions and best available science, with periodic review every five years when the Local Hazard Mitigation Plan (LHMP) that is incorporated by reference into the Safety Element is adopted. Amendment of the Safety Element would occur as needed to ensure ongoing internal consistency. The planning horizon and timeframe of this current Safety Element is to the year 2040 when these policies are expected to be more comprehensively updated. Applications submitted after the update is adopted would be subject to updated policies.
- Recognize that shoreline development may have impacts on surfing resources in the County.
- Recognize that in the near- to mid-term, expenditures by private owners of certain coastal bluff properties (e.g. within the SPEA along Opal Cliffs Drive) for shoreline and coastal bluff armoring will allow time for the County of Santa Cruz to identify funding for and carry out priority adaptation projects related to relocation of critical public infrastructure (which may also include roads and bridges) that must be undertaken in the future.
- Recognize that Shoreline Management Plans may be needed to plan for and implement sea level rise adaptation strategies in certain hazardous areas of the County, especially for the area between the Harbor /7th Avenue and Pleasure Point Drive where shorter sandy bluffs rather than taller Purisima Formation coastal bluffs exist. The area that would most benefit from development of a Shoreline Management Plan in order to establish a vision and refined guidance for future development rights, is for the Harbor/7th Avenue to Pleasure Point Drive/Soquel Point area, and grant applications will be submitted as feasible for available sources. The County will strive to support development of Shoreline Management Plans to be adopted by 2035 as Local Coastal Program implementation regulations. Shoreline Management Plans will need to address potential effects of development, shoreline armoring, at-grade and elevated buildings, especially on beach and at lagoon areas, and could identify potential opportunities to improve public access to the coast, protection of coastal resources, and adaptation of public roads and infrastructure.
- Development projects located on beaches (including within certain Rural Service Areas such as for Beach Drive, Las Olas and Pot Belly Beach properties), must be restricted to maximum permissible "elevation strategies" to elevate structures above waters and hazards as sea level rises in the future, which generally is established as a "one non-habitable story" amount of elevation (approximately 10 feet), and height variances to accommodate structural elevations for replacement/redeveloped structures should not exceed approximately 10 feet in any case and may be lower in certain locations to prevent impacts on coastal resources. This would apply only to projects on beaches and not on coastal bluffs.
- Strive to ensure that public access to the coastline and coastal dependent resources is preserved, and take actions to require correction and/or mitigation when the loss of such access and/or resources results from activities or inaction by private property owners.
- In conjunction with approval of coastal development permits for a new home or major project involving an existing home located on a coastal bluff or on the shoreline, impose conditions of approval consistent with principles of nexus and proportionality, including:
 - Acceptance of risk associated with geologic and coastal hazards by owners.
 - Waiver of any claim of damage or liability against and indemnification of the County for any damages or injury in connection with the permitted development.

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- Ensure monitoring, maintenance and repair programs are implemented for existing or approved shoreline and coastal bluff armoring.
- Ensure property owners are aware of their responsibilities to respond to coastal hazards should the site or structure become unsafe.
- Require property owners to recognize that local jurisdictions have the power to require that unsafe/dangerous structures be vacated and/or abated/removed, under the County Building Code (including the Uniform Code for Abatement of Structural and Geologic Hazards), and notice and order of the Building Official, when site conditions are such that hazards to life and public safety are no longer acceptable.
- When otherwise allowable, require new or repaired or modification of existing shoreline armoring to be the least environmentally damaging alternative and ensure that all impacts are mitigated.
- Require property owners to recognize that as sea level rises, the public trust boundary will in most cases migrate inland, resulting in currently private lands becoming public land that is held in the public trust for public trust purposes, including public access and recreation and other coastal-dependent uses.

Objective 6.4 Coastal Bluffs and Beaches

(LCP) To reduce, minimize to an acceptable level, and internalize costs of private property investments, the risks to life, property, and public infrastructure from coastal hazards, including projected hazards due to sea level rise, wave run-up and coastal erosion, and to minimize impacts on coastal resources from developments granted coastal development permits and granted extensions to Monitoring & Maintenance and Repair Programs for shoreline protection structures.

General Shoreline Policies

6.4.1 Shoreline Policy Framework and Time Horizon

(LCP) Recognize the diverse nature of the coastline and coastal development in the County and implement a policy hierarchy with general policies that apply to all projects, policies that apply to shoreline type, policies that apply to project type, and policies that address ongoing adaptation to sea level rise along the County's coastline and in specific shoreline areas.

Recognizing that shoreline and blufftop areas are inherently dynamic and hazardous places to build, particularly with respect to climate change and sea level rise in the coming decades, while at the same time understanding that property owners and project applicants seek a level of assurance regarding County land use policies that apply to proposed projects, the shoreline and coastal bluff policies of this Safety Element shall be considered to be in effect until the year 2040, by which time the expectation is that shoreline management plans and an updated set of policies within a Safety Element Amendment will have been adopted. More information will be available in the year 2040 that may cause the County to change its land use goals and development criteria or allow for further refinement. Projects proposed after adoption of any updated policies and regulations would be subject to the updated policies and regulations. Carry out 5-year reviews and amend policies as warranted, at the time each Local Hazard Mitigation Plan is adopted (2025, 2030, 2035) to ensure internal consistency (the LHMP is required to be updated every five years).

6.4.2 Site Development to Minimize Coastal Hazards and Protect Coastal Resources

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(LCP) Require all development/development activities (SCCC 16.10) to be sited and designed to avoid, and where unavoidable to minimize, coastal hazards affecting the proposed development, and to not contribute to increased coastal hazards on adjacent or nearby properties, as determined by the geologic hazards assessment or through geologic and engineering investigations and reports, and within acceptable risk levels for the nature of the proposed development. Consider the effects of projected sea level rise in designing proposed improvements. Protect coastal resources (e.g. public access, beaches, and coastal habitats) from significant impacts through project design. Where impacts are unavoidable either deny the project or impose mitigation measures to reduce risks to acceptable levels and reduce impacts on coastal resources to less than significant levels.

6.4.3 Coastal Hazard Technical Reports to Use Best Available Science for Sea Level Rise Projections and Calculations of Geologic/Coastal Hazards Setbacks

(LCP) Recognize the scientific uncertainty by using within technical reports and project designs reasonably foreseeable projections of sea level rise (SLR) within the acceptable range established by the best available science and statewide guidance. The projection to be used in technical reports shall be based upon current best professional practices and best available science, which as of 2020 is considered to be) 0.9 feet of sea-level rise between 2000 and 2040, and 3.1 feet to 4.3 feet of sea-level rise between 2000 and 2100. (State of California Sea Level Rise Guidance medium risk aversion scenario for the Monterey tide gauge). This policy may mean that certain developments are proposed, conditioned and mitigated based upon a shorter “expected design life” as defined by a site-specific geologic study and application filed with the County.

6.4.4 Identifying Planning Horizons and Expected Design Life Timeframes for New Structures

(LCP) The time horizon to use to evaluate the impacts of projected future sea level rise on a proposed development is an expected "standard" design life; applications for a “less-than-standard” design life may be considered through a geologic setback exception request included in the project development entitlements application. Under the Santa Cruz County regulatory approach, a residential or commercial structure has an expected standard design life of 75 years. A critical structure or facility has an expected standard design life of 100 years. The hazards analysis prepared in association with a coastal development permit application shall evaluate the site over the applicable 75- or 100-year standard and shall include analysis supporting any requested exception to the design life/geologic setback. The proposed structure would be set back or designed to avoid hazards over the proposed "expected life" planning horizon. In areas subject to future hazards, the expected design life of any particular development may be limited by site conditions. The expected life of development in the coastal zone is not an entitlement to maintain development in hazardous areas for the stated, requested or approved “design life”, but rather shall be used for sea level rise planning, structure siting, and permitting purposes. The actual life of the development shall be as dictated by actual conditions on the ground at any time in the future, and subject to conditions of approval which include triggers/requirements for monitoring, maintenance, repair, and abatement as appropriate over time.

6.4.5 Geologic Hazards Assessment and Technical Reports in Coastal Hazard Areas

(LCP) Require a geologic hazards assessment or full geologic, geotechnical, hydrologic, and/or other engineering report(s) for all development/development activities (SCCC 16.10), and foundation replacement or upgrade, within coastal hazards areas. Other technical reports may be required if significant potential hazards are identified by the hazards assessment. Reports must be prepared based on current best professional practices and best available science, consistent with this Safety Element and implementing provisions of the Santa Cruz County

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Code. Setback calculations shall consider historical shoreline and bluff retreat factors but must also consider projected acceleration of retreat due to sea level rise, wave run-up and other climate impacts according to best available science, which may include requirements for alternatives analysis under a range of future possible scenarios. Reports must be accepted by the County in order to use report findings as the basis for design of proposed structures or improvements.

6.4.6 Prohibit New Lots or Parcels in Coastal Hazard Areas

(LCP) Do not allow the creation of new lots or parcels in areas subject to coastal hazards, or within geologic setback areas necessary to ensure a building site for an expected 75 or 100-year lifetime, or where development would require the construction of public facilities or utility transmission lines within coastal hazard areas.

6.4.7 New Development on Existing Undeveloped Lots of Record in Hazardous Areas Not Located Within a Shoreline Protection Exception Area (“SPEA”)

(LCP) Outside Shoreline Protection Exception Areas, allow new construction or placement of any habitable structure, including a manufactured home and including a non-residential structure occupied by property owners, employees and /or the public in areas subject to storm wave inundation or beach or bluff erosion on existing undeveloped lots of record, only under the following circumstances:

(a) A technical report(s), including a geologic hazards assessment, geologic, geotechnical, hydrologic, and/or other engineering report(s), demonstrates that the potential hazard can be adequately mitigated by providing a minimum 75 or 100-year geologic/coastal hazards setback calculated at the time of submittal of the development application without consideration of any proposed new shoreline armoring, or that a geologic setback would be requested.

(b) As an alternative to the 75 or 100-year hazard setback, the property owner may apply for a Geologic/Coastal Hazards Setback Exception to request that the geologic setback applicable to the site reflect a shorter “expected design life” for the development on condition that the property owner fully accepts the risk of same and agrees to future removal of all development on the site (including any shoreline armoring) as may be required by triggers or other conditions identified in the conditions of development approval and to be incorporated within the Notice that is required and recorded pursuant to Policy 6.4.9.

(c) Outside the USL/RSL, mitigation of the potential hazard will not be dependent on existing or proposed shoreline or coastal bluff armoring. Within the USL/RSL, mitigation of the potential hazard may be dependent on shoreline or coastal bluff armoring provided such armoring is existing, legally established, and is required to be monitored, maintained, and repaired, and to mitigate its coastal resource impacts; and

(d) The owner records a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release on the property deed pursuant to Policy 6.4.9.

6.4.8 Density Calculations

(LCP) Exclude areas subject to coastal inundation, as defined by geologic hazard assessment or full geologic report, as well as bluff faces, sandy beach areas, and areas subject to the public trust from use for density calculations.

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6.4.9 Required Recordation on Deed of Notice of Geologic/Coastal Hazard, Acceptance of Risk, Liability Release, and Indemnification as a Condition of Coastal Development Permit Approval

(LCP) As a condition of approval of Coastal Development Permits for development/development activities (SCCC 16.10) on sites subject to coastal hazards, require the applicant to record on title/deed to the property, prior to issuance of a building permit or grading permit, a Notice of Geologic/Coastal Hazard, Acceptance of Risk, Liability Release, and Indemnification. The Notice shall be in a form approved by the County of Santa Cruz, and shall include, but not be limited to, the following acknowledgements and agreements, on behalf of the applicant and all successors and assigns, as applicable to the specific project:

Coastal Hazards. That the site is subject to coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storm surges, tsunami, tidal scour, coastal flooding, liquefaction and the interaction of same, with these hazards all expected to increase due to impacts of climate change and sea level rise;

Assume and Accept Risks. To assume and accept the risks to the Applicant and the properties that are the subject of a Coastal Development Permit of injury and damage from such coastal and geologic hazards in connection with the permitted development;

Waive Liability. To unconditionally waive any claim of damage or liability against the County of Santa Cruz its officers, agents, and employees, for injury or damage to the permitted development, occupants of the site, or the general public in connection with the permitted development as related to geologic/coastal hazards;

Indemnification. To indemnify and hold harmless the County its officers, agents, and employees, with respect to the County's approval of the development against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement to the extent arising from any injury or damage in connection with the permitted development and geologic/coastal hazards (along with other standard indemnification provisions applied to all development permits by the County);

Property Owner Responsible. That any adverse effects to property caused by the permitted development, as related to geologic/coastal hazards potential or actual effects, shall be fully the responsibility of the property owner. That cost of monitoring, maintenance, repair, abatement and/or future removal of structures shall be fully the responsibility of the property owner;

Flood Insurance. If the structure is built so that it does not comply with an effective BFE data as may be shown on future final Flood Insurance Rate Maps (FIRM), acknowledging that the structure may be subject to a higher flood insurance rating, likely resulting in higher-risk annual flood insurance premium if the property owner purchases flood insurance (voluntarily, or as required by mortgage lenders). If a program is created in the future that removes the subject location from being eligible for FEMA flood insurance, agree to abide with the terms of such a program.

Formation of GHAD or CSA. The property owner and / or any future heirs or assigns, by accepting a Coastal Development Permit, acknowledges that a Geologic Hazard Abatement District (GHAD) or County Service Area (CSA) may be formed in the future by the County (or other public agency) or a private entity to address geologic and coastal hazards along the shoreline and coastal bluff (or related unit thereof) and coastal resources that exist in the project area, and assessments may be proposed and/or imposed for costs of projects and/or activities related to the protection against and/or abatement of geologic and coastal hazards.

Public Funds. That public funds may not be available in the future to repair or continue to provide services to the site (e.g., maintenance of roadways or utilities) and under such circumstances the County does not guarantee essential services to the site will continue to be

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provided, especially to sites that have or will soon become public trust lands as the mean high tide line migrates inland due to sea-level rise;

Occupancy. That the occupancy of structures where sewage disposal or water systems are rendered inoperable may be prohibited;

Public Trust Lands. That the structure may eventually be located on public trust lands, which removes private ownership rights from such areas; and

Removal or Relocation. In accordance with County regulations and Orders of the Chief Building Official, County Geologist, and/or Civil Engineer, that all development on the site, including shoreline and coastal bluff armoring, may be required to be removed or relocated and the site restored at the owner's expense if future site conditions and coastal hazards warrant such action.

6.4.10 Exceptions Takings Analysis

(LCP) Where full adherence to all LCP policies, including for setbacks and other hazard avoidance measures, would preclude a reasonable economic use of the property as a whole in such a way as to result in an unconstitutional taking of private property without just compensation, the County of Santa Cruz or Coastal Commission if having primary jurisdiction or on appeal, may allow some form of development that provides for the minimum economic use necessary to avoid an unconstitutional taking of private property without just compensation. There is no taking that needs to be avoided if the proposed development constitutes a nuisance or is otherwise prohibited pursuant to other background principles of property law (e.g., public trust doctrine). In no case shall the coastal bluff setback be less than 25 feet except as specifically allowed by Policies 6.4.13 and 6.4.28. Continued use of an existing structure, including with any permissible repair and maintenance (which may be exempt from permitting requirements), may provide a reasonable economic use. If development is allowed pursuant to this policy, it must be consistent with all LCP policies to the maximum extent feasible. Approval of a lesser level of hazard reduction based upon accepting a lower than normal expected lifespan for the proposed improvements, may be based on conditions of approval to include requirements to remove improvements as life safety hazards become more imminent and upon notice of the County Building Official and County Geologist, and possible other limitations on future reconstruction or redevelopment of improvements.

Shoreline Policies by Shoreline Type

6.4.11 Geologic/Coastal Hazards Setbacks from Coastal Bluffs for New Development, Redevelopment and Reconstruction on Coastal Bluffs Located Within the Urban and Rural Services Lines

(LCP) All development (SCCC 16.10) on a coastal bluff site, and all nonhabitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff on sites located within the Urban and Rural Services Lines (USL/RSL). A setback greater than 25 feet may be required based on conditions on and adjoining the site, based upon recommendations of required geologic, soil engineering and/or other technical reports, in order to provide a stable building site for the reasonably foreseeable future. Within the USL/RSL, the geologic/coastal hazards setback shall be sufficient to provide a stable building site for a 75 or 100-year assumed "expected design life" of the improvements, calculated at the time of application for permits when the technical reports are submitted, unless a geologic setback exception is approved.

Within the Urban and Rural Services Lines, the calculation of the 75 or 100-year geologic/coastal setback, or alternate timeframe setback requested under an exception procedure, will take into consideration the effect of existing legally established shoreline or

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coastal bluff armoring. If the geologic setback relies on existing armoring, the applicants will be required to re-evaluate such armoring consistent with Policy 6.4.25 regarding shoreline armoring, including that and such armoring is required to be monitored, maintained and repaired and to mitigate its coastal resource impacts. However, armoring installed under an emergency coastal permit will not be factored into the setback calculation unless a regular Coastal Development Permit is issued, and all conditions of the permit are met. In addition, technical reports prepared for sites within the Urban and Rural Services Lines will also include analysis based upon an alternative calculation of the 75 or 100-year setback that neglects any effect of existing armoring, in order to provide a measure of the effects of the existing armoring on the site conditions and provide information for decision making.

Furthermore, in areas within the USL/RSL that are NOT within designated Shoreline Protection Exception Areas (the area from Soquel Point, from and including APN 028-304-72 upcoast along East Cliff/Opal Cliffs Drives, and to the Capitola city limit downcoast, is within a Shoreline Protection Exception Area; other areas may be established in conjunction with adoption of future Shoreline Management Plans), allow one project that qualifies as new, a substantial remodel or "redevelopment/replacement" (defined as modification/reconstruction of 50% or more of major structural components of the structure or an addition of more than 50% of the existing habitable area of the structure for projects on coastal bluffs, as defined in SCCC 16.10) prior to 2040 or prior to any amendment of this policy provision, whichever is later. After the allowed new or major project, subsequent development may be considered subject to and in accordance with Policy 6.4.12. More strictly limit, or do not approve, new/replacement/reconstruction projects if structures on the site have been damaged by coastal processes.

6.4.12 Geologic/Coastal Hazards Setbacks from Coastal Bluffs for New Development, Redevelopment and Reconstruction Outside of the Urban and Rural Services Lines

(LCP) All development (SCCC 16.10) on a coastal bluff site, and all nonhabitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff on sites located outside of the Urban and Rural Services Lines (USL/RSL). A setback greater than 25 feet may be required based on conditions on and adjoining the site, based upon recommendations of required geologic, soil engineering and/or other technical reports, in order to provide a stable building site for the reasonably foreseeable future. Outside the USL/RSL, the geologic/coastal hazards setback shall be sufficient to provide a stable building site for a 75 or 100-year setback, calculated at the time of application for permits when the technical reports are submitted, unless a geologic setback exception is approved by the County.

Outside the Urban and Rural Services Lines, for properties located on coastal bluffs, the calculation of the 75 or 100-year geologic/coastal hazards setback shall be based on existing site conditions and shall not take into consideration the effect of any existing shoreline or coastal bluff armoring. New shoreline or coastal bluff armoring is not allowed outside the Urban and Rural Services Lines. Authorized maintenance and repair of existing armoring is allowed to continue under an approved monitoring, maintenance, and repair program.

6.4.13 Modification, Reconstruction, or Replacement of Damaged Structures on Coastal Bluffs

(LCP) If structures located on or at the top of a coastal bluff are damaged as a result of coastal hazards, including slope instability and seismically induced landslides, and where the loss involves 50 percent or more of Major Structural Components, allow reconstruction if all applicable LCP policies and regulations can be met, including the minimum 25-foot and the applicable 75 or 100-year geologic/coastal setbacks, or alternate setback authorized by an approved setback exception that establishes a shorter-term expected design life for the structure

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For structures involuntarily damaged by other than coastal hazards (fire, for example), where the loss involves 50 percent or more of the Major Structural Components of the structure, allow repair “in kind” but encourage relocation to increase the setback if feasible. Allow other than “in-kind” reconstruction, redevelopment or replacement of involuntarily damaged structures in accordance with all applicable LCP policies and regulations.

Exemption: Public beach facilities and replacements consistent with Coastal Act Section 30610(g).

6.4.14 Bluff Face Development

(LCP) Structures, grading, and landform alteration on bluff faces are prohibited, except for the following: public access structures with connection to public roads and/or public access easements, or as appropriate where no feasible alternative means of public access exists, or shoreline or coastal bluff armoring if otherwise allowed by the LCP. Such structures shall be designed and constructed to be visually compatible with the surrounding area to the maximum extent feasible and to minimize effects on erosion of the bluff face. Ensure that public access to the coastline and coastal dependent resources is preserved when the loss of such access and/or resources is due to inaction on the part of private property owners.

6.4.15 Flood Hazard Policies

(LCP) As further addressed in Section 6.6 Flood Hazards, all structures shall be located outside of the flood hazard area, wherever possible, and to incorporate floodproofing measures as required by FEMA and local flood regulations in areas subject to flood hazards, provided such floodproofing measures are consistent with the shoreline armoring policies for development along coastal bluffs and the shoreline.

6.4.16 Flood Hazard Mitigation

(LCP) If it is infeasible for development to avoid flooding hazards, it shall be designed to minimize risks from flooding, including as influenced by sea level rise, over the anticipated life of the development to the maximum extent feasible and otherwise constructed using design techniques that will limit damage caused by floods. (See Policies in Section 6.6 and the Floodplain Regulations.)

6.4.17 Reconstruction or Replacement of Damaged Structures due to Storm Wave Inundation

(LCP) If structures located in areas subject to storm wave inundation are damaged as a result of any cause and the loss involves 50 percent or more of the value of the structure before the damage occurred (substantial damage), allow such repair (substantial improvement) only if all applicable regulations and LCP policies can be met. Also see policies in Section 6.6 Flood Hazards.

Exceptions: Public beach facilities and replacements subject to Coastal Act Section 30610(g).

6.4.18 Pajaro Dunes

(LCP) Siting and design of new development and other development activities in the Pajaro Dunes Community shall take into account the extent of erosion of the primary frontal dune during the 100-year flood (or 1% annual chance flood). Development shall be elevated a sufficient amount to prevent impacts to coastal resources, assure structural stability of the development, and avoid coastal hazards over the expected lifespan of the development in accordance with the Flood Hazard policies in Section 6.6 and the Floodplain Regulations.

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6.4.19 Rocky Shoreline Development

(LCP) Development atop rocky shoreline areas with no beach or limited beach shall not impact existing public access to the shoreline and shall incorporate conditions of approval as appropriate to increase public access to the shoreline. Ensure that public access to the coastline and coastal dependent resources is preserved, and take actions to require correction and/or mitigation if the loss of such access and/or resources results from activities or inaction by private property owners.

6.4.20 Development Along Creeks and Rivers in the Coastal Zone

(LCP) Where creeks and rivers discharge to the coastal zone recognize the combined effects of riverine flooding and coastal storm flooding causing elevated flood levels relative to existing FEMA flood mapping. Require hydrologic analysis to determine risk and appropriate development restrictions and flood resistant designs in these areas.

6.4.21 Habitat Buffers

(LCP) Provide buffers from the edge of wetlands or other environmentally sensitive habitat areas including riparian habitat, in accordance with habitat protection policies. Development shall ensure that as sea level rises buffer areas shall also expand appropriately to allow for migration of wetlands and other shoreline habitats. Uses and development within buffer areas shall be limited to uses allowed under the County's policies and ordinances involving sensitive habitat and riparian corridor protection. All development, such as grading, buildings and other improvements, adjacent to or draining directly to a habitat area must be sited and designed so it does not disturb habitat values, impair functional capacity, or otherwise degrade the habitat area.

Shoreline Policies by Project Type

6.4.22 Publicly Owned Facilities

(LCP) Existing publicly-owned and quasi-public facilities that are coastal-dependent or visitor serving uses such as public access improvements and lifeguard facilities, that are located on the beach or within 25 feet or within a calculated 75 or 100-year setback from the edge of the bluff, may be maintained, repaired, and/or replaced. Any repair or replacement shall be designed and sited to avoid the need for shoreline protection to the extent feasible.

6.4.23 Public Works Facilities

(LCP) Public works projects as defined in the Coastal Act shall be consistent with the Local Coastal Program.

6.4.24 Public Services in Coastal Hazard Areas

(LCP) Prohibit utility facilities and service transmission systems, including internet/broadband service, in coastal hazard areas, unless they are necessary to serve existing development or public facilities.

6.4.25 Structural Shoreline and Coastal Bluff Armoring

(LCP) (a) Limit shoreline and coastal bluff armoring within the Urban and Rural Services Lines to serve coastal dependent uses or to protect existing structures or public beaches from significant threats, unless located within and proposed in accordance with adopted policies and/or plans under a Shoreline Protection Exception Area or Shoreline Management Plan, in which cases the projects must be determined to be in substantial conformance with such policies and Plan(s). Armoring shall be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Armoring may also be considered for vacant lots where both adjacent parcels are

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already similarly protected, or vacant lots which through lack of protection threaten adjacent or nearby developed lots; or those which protect public roads and infrastructure, and coastal recreation areas. Developments on and along beaches and coastal lagoons shall not be protected by new shoreline protection structures. New shoreline or coastal bluff armoring is not allowed outside the Urban and Rural Services Lines unless required by the Coastal Act. Authorized maintenance and repair of existing armoring is allowed to continue under approved monitoring, maintenance, and repair programs.

(b) Through the coastal development permit review process for projects involving development (SCCC 16.10), require evaluation of existing shoreline and coastal bluff armoring in accordance with all applicable sub-sections of this policy 6.4.25. Unless triggered by a proposed development project or work that exceeds the scope of maintenance and repair of an existing shoreline or coastal bluff armoring structure, the term of a permit for an existing armoring structure shall not be altered.

Project Review

(c) Require any coastal development permit applications for shoreline and coastal bluff armoring located outside of Shoreline Protection Exception Area(s) to include a thorough analysis of all reasonable alternatives to the proposed armoring including, but not limited to, the following:

- (1) Consistency with an approved shoreline management plan, if applicable.
- (2) Relocation or partial removal of the threatened structure.
- (3) Protection of the upper bluff and blufftop (including through planting appropriate native or non-invasive vegetation and removing invasive plant species, and better drainage controls) or the area immediately adjacent to the threatened structure.
- (4) Natural or “green” infrastructure (like vegetated beaches, dune systems, and wetlands).
- (5) Engineered shoreline or coastal bluff armoring (such as beach nourishment, revetments, or vertical walls).
- (6) Other engineered systems to buffer coastal areas.
- (7) Combinations or hybrids of the above.

(d) Shoreline or coastal bluff armoring projects shall be designed as close as possible to the coastal bluff or structure requiring protection and must be designed to minimize adverse impacts. Design considerations include but are not limited to the following:

- (1) Minimize the footprint of the armoring on the beach.
- (2) Provide for public recreational access.
- (3) Provide for future access for maintenance of the armoring.
- (4) Strive for a continuous lateral pedestrian access as physically feasible.
- (5) Minimize visual intrusion by using materials that blend with the color or natural materials in the area, contouring to match nearby landforms as much as possible, and using vegetation for screening.

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- (6) Meet approved engineering standards and applicable County Code provisions for the site as determined through the coastal development, building, and grading permit process.
 - (7) The design must be based on detailed technical studies to accurately define geologic, hydrologic and oceanographic conditions affecting the site.
 - (8) Eliminate or mitigate adverse impacts on local shoreline sand supply.
 - (9) All armoring structures shall incorporate permanent survey monuments for future use in establishing a survey monument network along the coast for use in monitoring seaward encroachment or slumping of armoring and erosion trends.
- (e) Unless the existing armoring is being appropriately maintained by an approved Geologic Hazard Abatement District Plan of Control or other joint maintenance agreement, for development activities (SCCC 16.10) protected by existing shoreline and coastal bluff armoring, the coastal permit application shall include:
- (1) Re-assessment of the need for the armoring (see paragraph (l) below).
 - (2) A report on the need for any repair or maintenance of the device (see paragraph (k) below).
 - (3) Evaluation of the stability and condition of the armoring and recommendations for maintenance, repair, or modification, and potential for removal based on changed conditions.
 - (4) A report on changed geologic and hydrologic site conditions including but not limited to changes relative to sea level rise.
 - (5) Assessment of impacts to sand supply and public recreation.
 - (6) Recommendation to avoid or mitigate impacts to sand supply and public recreational resources.
 - (7) If approved, such development associated with existing shoreline or coastal bluff armoring shall meet all other applicable requirements of this policy, including with respect to the impact mitigation requirements.
- (f) For sites protected by existing rip rap or similar material, or nonengineered legacy structures, require that the applicant submit a report at the time of filing an application for a coastal development permit for development (SCCC 16.10), including an evaluation of the stability and condition of the armoring and recommendations for maintenance, repair, or modification, and potential for removal based on changed conditions. The report shall include a Recovery Plan for the maintenance and repair, or potential removal of all or a portion of the existing rip rap revetment, to recover migrated rip rap and to provide for least disturbance of the beach and shoreline while also functioning as necessary to protect the structures on and adjacent to the parcel. The Recovery Plan must incorporate Best Management Practices for maintenance and repair to address potential impacts to sensitive species and environmental resources, as well as Best Management Practices for construction during maintenance and repair activities.

Conditions of Approval

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- (g) Shoreline or coastal bluff armoring requiring a coastal development permit should be the least environmentally damaging feasible alternative to serve coastal-dependent uses or to protect a structure or a public beach in danger from erosion.
- (1) Hard armoring (such as seawalls and revetments, etc.) shall only be allowed if soft alternatives (such as managed retreat/relocation, beach nourishment, vegetative planting, and drainage control, etc.) are not feasible, or are not the least environmentally damaging feasible alternative.
 - (2) Permit shoreline or coastal bluff armoring only if non-structural measures are infeasible from an engineering standpoint or not economically viable.
 - (3) Hard armoring is limited as much as possible to avoid coastal resource impacts.
 - (4) Alternatively, an approved Shoreline Management Plan or projects within a designated Shoreline Protection Exception Area may authorize hard armoring for identified sections of the coast.
- (h) No coastal development permit application for shoreline or coastal bluff armoring shall be approved for the sole purpose of protecting an accessory structure.
- (i) All proposed shoreline and coastal bluff armoring shall be sited and designed to eliminate or mitigate adverse impacts on coastal resources to the maximum feasible extent. All unavoidable coastal resource impacts shall be appropriately mitigated. Any approved new, replacement, reconstructed or redeveloped shoreline protection structure must not result in unmitigated impacts to coastal resources including:
- (1) Reduced or restricted public beach access.
 - (2) Adverse effects on shoreline processes and sand supply.
 - (3) Increased erosion or flooding on adjacent properties.
 - (4) Adverse effects on coastal visual or recreational resources, or harmful impacts on wildlife and fish habitats or archaeological or paleontological resources.
- (j) Mitigation Programs. Require mitigation of unavoidable adverse impacts on coastal resources, including payment of in lieu fees where on-site or in-kind options are not possible. The shoreline or coastal bluff armoring project shall include proportional mitigation for all unavoidable coastal resource impacts, including impacts on shoreline sand supply, sandy beaches, public recreational access, public views, natural landforms, and water quality. At a minimum, the effects of the armoring with respect to retention of sand generating materials, the loss of beach/sand due to its footprint, and passive erosion shall be evaluated. Proportional in-lieu fees may be used as a proxy for impact mitigation if in-kind options (such as developing new public access facilities) are not possible, and if such in-lieu fees are deposited in an interest-bearing account managed by the County and used only for mitigations offsetting unavoidable adverse impacts of the project. Required mitigation shall be determined based on reasonable calculation of unavoidable adverse impacts of a specific project on coastal resources, and may include the following:
- (1) Sand Mitigation - to mitigate for loss of beach quality sand which would otherwise have been deposited on the beach the County may collect a fee proportional to the impact of the project on the deposit of beach quality sand which would have otherwise occurred to implement projects which mitigate for loss of beach quality sand due to or

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coastal bluff armoring. The methodology used to determine the appropriate mitigation fee will be as approved by the California Coastal Commission and which may be administratively amended from time to time by the Commission. Unless amended, the methodology applies to coastal bluff environments and does not apply to sand dune environments such as Pajaro Dunes. The mitigation fee shall be deposited in an interest-bearing account designated by the Planning Director or County Parks Director.

- (2) Public Recreation Mitigation - to mitigate for public recreational impacts associated with actual loss of public recreational opportunities, including access, caused by the armoring, the County shall identify mitigation that allows for objective quantification of the value of beach and shoreline area that is related in both nature and extent to the impact of the project. Project applicants have the option of proposing an on-site or in-kind public recreation/access project or payment of fees to the County in lieu of on-site or in-kind mitigation of impacts. The in-kind public recreational/access project may be an on-site easement or improvement or other off-site public use or access amenity. At the County's discretion, these projects may be accepted if it can be demonstrated that they would provide a directly related recreation and/or access benefit to the general public. Fees paid to the County to mitigate public recreational impacts shall be calculated based on the cost to provide alternative public recreational opportunity, proportional to the loss of public recreational opportunity caused by the project. Unless an alternative method is adopted, the methodology used to calculate fees paid to the County for use of County-owned property, such as rights-of-way, shall be the methodology for calculating the public recreation in-lieu fee that would satisfy this mitigation requirement. Fees for use of County-owned property may be established and amended by the County from time to time.
- (k) No approval shall be given for any coastal development permit involving shoreline or coastal bluff armoring that does not include a requirement for submittal and County acceptance of a Monitoring, Maintenance and Repair Program prior to finalization of the building/grading permit for the structure. The Program shall include, but is not limited to the following elements:
- (1) Monitoring by a professional engineer or geologist familiar and experienced with coastal structures and processes.
 - (2) Report to the County upon completion of construction of the armoring and every five years or less thereafter, as determined by either the County Geologist or a qualified professional, for as long as the armoring remains authorized. Reports shall be reviewed and accepted by the County Geologist.
 - (3) The report shall detail the condition of the structure and list any recommended maintenance and repair work.
 - (4) The monitoring plan and periodic report shall address impacts to shoreline processes and beach width, public access, and availability of public trust lands for public use.
 - (5) The monitoring, maintenance and repair program shall be recorded on the title/deed of the property.
 - (6) The program shall allow for County removal or repair of shoreline or coastal bluff armoring, at the owner's expense, if its condition creates a public nuisance or if necessary, to protect the public health and safety and to ensure that public access to the coastline and coastal dependent resources is preserved. Take actions to require

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correction and/or mitigation if the loss of such access and/or resources results from activities or inaction by private property owners.

(7) The program shall include any other monitoring, maintenance, and repair activities the County determines necessary to avoid or mitigate impacts to coastal resources.

(8) The term of the Program shall be 20-years. Extension beyond 20 years will require an application to amend the condition of approval of the Coastal Development Permit to extend the Monitoring, Maintenance, and Repair Program at which time the Program shall be updated if necessary, to address changed shoreline conditions, and may include additional and/or renewed requirements for mitigation of then-existing impacts of the project on coastal resources for the requested term of extension.

(l) Armoring Duration. The shoreline or coastal bluff armoring shall only be authorized until the time when the existing structure that is protected by such a device 1) is no longer present; or 2) no longer requires armoring. Unless already authorized within an approved Monitoring, Maintenance and Repair Program pursuant to approved coastal development permit that addresses the anticipated removal of the protection structure, permittees shall be required to submit a coastal permit application to remove the authorized shoreline or coastal bluff armoring within six months of a determination that the armoring is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring.

(m) Maintenance and Repair Authorized. Approved shoreline or coastal bluff armoring may be maintained and repaired (with building or grading permits as needed) in accordance with conditions of approval of Coastal Development Permits authorizing the armoring; but exceeding authorized maintenance and repair may require updated technical reports and may require approval of an amendment of the coastal development permit. Repair and maintenance activities may require issuance of a coastal development permit, consistent with the Title 14, Section 13252, of the California Code of Regulations.

Emergency Authorization

(n) In cases of emergency, an emergency shoreline protective device may be approved on a temporary basis only, and only under the condition that the device is required to be removed unless a regular coastal development permit is approved for retention of the structure. In such cases, a complete coastal development permit application shall be required to be submitted within 60 days following construction of the temporary emergency shoreline protective device, unless an alternate deadline is authorized by the Planning Director for good cause and good faith efforts continue toward submittal of the application. Any such temporary emergency shoreline protective device shall be sited and designed to be the minimum necessary to abate the identified emergency, and to be as consistent as possible with all LCP shoreline protective device standards, including in terms of avoiding coastal resource impacts to the maximum feasible extent. Mitigation for impacts will be required through the regular coastal development permit process, although mitigation commensurate with the duration of impacts caused by the emergency temporary device may also be required as determined by the County to be warranted. The County shall notify the Coastal Commission upon receipt of a request for an emergency shoreline protective device within the County's coastal permit jurisdiction.

6.4.26 Drainage and Landscape Plans

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(LCP) Require drainage and landscape plans to consider potential hazards on and off site, to require removal of invasive plants and replacement with native bluff and/or other county-approved acceptable species in the area within 15 feet of the blufftop edge and below and be approved by the County Geologist prior to the approval of development in coastal hazard areas. Require that approved drainage and landscape development not contribute to offsite impacts and that the defined storm drain system or Best Management Practices be utilized where feasible. The applicant shall be responsible for the costs of repairing and/or restoring any off-site impacts caused by drainage and landscape work on the site.

6.4.27 Drainage and Improvements within 25 feet or applicable setback from coastal bluff.

(LCP) Drainage systems shall be designed to ensure that no drainage will flow over the coastal bluff. The drainage system (including water from landscaping and irrigation) shall not contribute to coastal bluff erosion. Furthermore, all drainage system components shall be maintained in good working order. All deck, stairs etc. within the 25-foot or applicable geologic/coastal setback are required to be structurally detached from other structures and not require a building permit.

6.4.28 Foundation Replacement and/or Upgrade

(LCP) Foundation replacement and/or foundation upgrades involving 50% or more of the existing foundation shall meet the 25-foot minimum and the applicable 75- or 100-year geologic setback requirements. An exception to those requirements is allowed for foundation replacement and/or upgrade for existing structures that are located partly or wholly or partially within the setback if the property owner agrees to record a Notice of Geologic/Coastal Hazard prior to issuance of the building permit, and if the Planning Director determines that:

(1) the structure will be relocated to maximize the geologic setback from the coastal bluff or shoreline; or

(2) the structure cannot be relocated to meet the setback due to inadequate parcel size.

6.4.29 Additions to Existing Structures Located on Coastal Bluff and Beaches

(LCP) Additions of any size to existing structures located on coastal bluff sites, including second story and cantilevered additions that extend the existing structure in a seaward direction, shall comply with the applicable geologic/coastal hazards setback requirements of Policies 6.2.11 and 6.2.12. Prohibit additions of any size to existing structures located on beaches or in the wave run-up zone, including second story and cantilevered additions, that extend the existing structure in a seaward direction.

6.4.30 Swimming Pools and Spas

(LCP) All new swimming pools, spas and similar in-ground and above-ground water recreation or fishpond types of features shall be located landward of the applicable geologic/coastal hazard setback. Any new water-containing features of this nature shall have double-wall construction with leak detection systems and drains to facilities and locations approved by the County.

6.4.31 Accessory Structures

(LCP) Coastal Development Permits are required for accessory structures in coastal hazard areas (including on blufftops and in the shoreline area), whether habitable or nonhabitable, and whether or not a building permit is required under Chapter 12.10 Building Regulations. CDPs authorizing accessory structures must include a condition of approval that requires the property owner and all successors in interest to remove the structure if the County Geologist, the Building Official or a licensed geotechnical engineer determines that the accessory structure is at risk of failure due to erosion, landslide or other form of bluff collapse or geologic/coastal

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hazard. In the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner shall be required to remove all recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site.

Ongoing Adaptation

6.4.32 Removal Conditions/Development Duration

(LCP) Coastal development permits for projects involving development (SCCC 16.10) on private property located in areas subject to coastal hazards shall be conditioned to indicate that it may be required that it be removed, and the affected area restored if:

(a) the Building Official and/or the County Geologist has issued a final Notice and Order that the structure has become permanently unsafe to occupy due to bluff failure, erosion of the bluff, or coastal hazards;

(b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads);

(c) removal is required pursuant to implementation of an adopted Shoreline Management Plan; or

(d) as provided by conditions of approval for a permit that has been accepted and implemented by an owner of the property.

Such condition shall be recorded on a deed restriction against the subject property. See Policy 6.4.9.

6.4.33 Abatement of Unsafe Site or Structure

(LCP) If coastal hazards result in an unsafe site or unsafe structure, dangerous conditions shall be abated in accordance with County regulations and Orders of the Chief Building Official. If all or any portion of improvements are deemed uninhabitable, the improvements shall be removed, and the affected area restored, unless an alternative response is approved by the County of Santa Cruz, and by the California Coastal Commission if the project is within the Coastal Commission's original jurisdiction. Alternative responses to coastal hazards may include (1) pursuit of a Coastal Development Permit consistent with County Code regulations in Chapter 13.20 (Coastal Zone Regulations) and Chapter 16.10 (Geologic Hazards); and/or (2) pursuit of an alternative consistent with an adopted shoreline management plan.

6.4.34 Bluff or Beach Erosion Trigger for Technical Report

(LCP) If the mean high tide line or the blufftop edge migrates to within 15 feet of a principal structure or to any other point where the site or structure is deemed unsafe by County regulations and/or the County Geologist, Civil Engineer, or Chief Building Official, the property owner shall retain a licensed geologist or civil engineer with experience in coastal processes and hazard response to prepare a geotechnical investigation and Coastal Hazards Report that addresses whether all or any portions of the residence and related development are threatened by coastal hazards, and that identifies actions that should be taken to ensure safe use and occupancy, which may include removal or relocation of all or portions of the threatened development and improvements, or other alternate responses. The property owner shall undertake activities to pursue an appropriate response in accordance with adopted and applicable County of Santa Cruz and California Coastal Commission regulations. The geotechnical investigation and Coastal Hazards Report shall be submitted to the Executive Director of the California Coastal Commission, and to the Planning Director, Chief Building Official and County Geologist of Santa Cruz County. If the residence or any portion of the residence is proposed to be removed, the Applicant shall submit a Removal and Restoration Plan. In the event that any structure in the future is located below mean high tide on state lands and subject to a state lease, strive to retain local control of any lease revenue.

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6.4.35 Removal and Restoration

(LCP) If an appropriate government agency so orders, or as a result of the above-referenced geotechnical investigation and Coastal Hazards Report, it is determined that any portion of the approved development must be removed due to coastal hazards, or if removal is required pursuant to Policies 6.4.9 or 6.4.32 or 6.4.33, a Removal and Restoration Plan shall be submitted to the County for review and approval. No removal activities shall commence until the Removal and Restoration Plan and all other required plans and permits are approved. The plan shall specify that in the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site. If it is determined that separate grading and coastal development permits are required in order to authorize the activities, the application shall be submitted as soon as immediately feasible, including all necessary supporting information to ensure it is complete. The Removal and Restoration Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, and shall be implemented immediately upon County approval, or County approval of required permit applications, as may be required.

6.4.36 Properties Classified as Repetitive Loss Under FEMA Floodplain Regulations

(LCP) Repetitive loss properties shall be subject to the requirements of Policy 6.4.17 regarding damage due to flooding, storm wave impacts, and inundation. Repetitive loss means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

6.4.37 Shoreline Management Plan(s)

(LCP) Seek funding to assist with more specific planning that would assess alternatives and identify preferred strategies for how various segments of the urbanized area shoreline/coastal bluffs could transition if more comprehensive modern approaches to shoreline protection were implemented by the County and/or private property owners through Geologic Hazard Abatement District(s) or County Service Area(s); rather than property-by-property measures. Consistent with Policy 6.4.1, the shoreline and coastal bluff policies of this Safety Element shall be considered to be in effect until the year 2040, by which time the expectation is that shoreline management plan(s) and/or an updated set of policies within a Safety Element Amendment will have been adopted. Should a future Shoreline Management Plan(s) become effective, all future proposed development shall be found to be substantially consistent with the provisions of the approved management Plan. Shoreline Management Plan(s) would identify any subareas that would be designated as Shoreline Protection Exception Areas, would identify the nature of planned improvements, would identify appropriate adaptation options to implement if and when shoreline and coastal bluff armoring is no longer a feasible solution, would identify triggers for when other adaptation options should be implemented, and would identify priority areas for future adaptation responses.

6.4.38 Repair and Maintenance Requiring a Coastal Development Permit

(LCP) Ensure consistency with Title 14, Section 13252, of the California Code of Regulations regarding repair and maintenance activities requiring a coastal development permit which identifies different thresholds depending on the nature and location of the repair and maintenance activity.

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Programs

- (LCP) a. Relocate if feasible, essential public facilities such as sewer lines and sanitation pump stations to locations outside of coastal hazard areas when they are due for expansion or replacement or major upgrade. (Responsibility: Public Works)
- (LCP) b. Develop and implement a program to correct existing erosion problems along coastal bluffs caused by public drainage facilities and monitor and enforce compliance of private drainage facilities with approved designs and applicable standards. (Responsibility: Public Works)
- (LCP) c. Review existing public coastal protection structures to evaluate the presence of adverse impacts such as pollution problems, loss of recreational beach area, and fish kills and implement feasible corrective actions. (Responsibility: Public Works, Environmental Health, Planning Department)
- (LCP) d. Support, encourage, and seek funding from FEMA and other appropriate agencies for the initiation of a review of all shoreline protective structures to evaluate their effectiveness and potential for becoming public hazards. Shoreline armoring can become public hazards, for example, if they are in such a state of disrepair that portions have fallen or are in imminent danger of falling onto beaches. Where it is determined that such structures are public hazards or where they provide ineffective protection due to inadequate maintenance, notify the property owner and require the property owner to either maintain the structure to a reasonable level or remove and replace the structure as feasible consistent with applicable policies and regulations. Consider County action to maintain or remove and replace the structure and recover costs by a lien against the property if the property owner does not act within one year of such notice. (Responsibility: Planning Department, Board of Supervisors)
- (LCP) e. Notify private property owners in areas subject to coastal hazards they are responsible for costs of responding to property damage due to coastal erosion, coastal flooding, and wave run-up hazards, including but not limited to repair, replacement, relocation and/or removal of a portion or all of damaged structures. Encourage property owners to create a contingency fund to cover future costs to modify, relocate and/or remove development that may become threatened in the future by sea level rise and/or when removal triggers are met. Costs for removal and restoration may be based on estimates provided by a licensed building moving/demolition contractor for the amount of contingency funds necessary to remove the structure, including any seawall and restore the site. The amount of contingency funds should be reviewed every ten years and adjusted to account for changed site conditions, inflation and other conditions that effect the amount of future contingency funds needed. (Responsibility: Planning Department)
- (LCP) f. Support, encourage, seek funding, and cooperate with the Coastal Conservancy, Coastal Commission, State Lands Commission, and the Army Corps of Engineers for the establishment and maintenance of a permanent survey monument monitoring network along the coast. Utilize existing monuments set by Caltrans, other public agencies, geologic consultants, and others to the greatest degree possible. Incorporate the use of these monuments into all future planning for shoreline protective structures. Provide geo-reference (latitude and longitude) for each monument and structure. (Responsibility: Planning Department, Public Works)
- (LCP) g. Explore, with regional, state and federal agencies as appropriate, whether it is desirable or feasible to create a program that would exclude certain areas of the coast and/or certain types of projects, from being eligible for FEMA insurance or other programs that involve shifting

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- costs of private property repair, replacement or abatement to public agencies or to insurance ratepayers in general.
- (LCP) h. Consider the best available and most recent scientific information with respect to the effects of coastal hazards and long-range sea level rise when establishing sea level rise maps, scenarios, and assumptions for use in geologic, geotechnical, hydrologic and engineering investigations, including coastal hazards analyses. Support scientific studies that increase and refine the body of knowledge regarding potential sea level rise in the County, and possible responses to it.
- (LCP) i. Research and identify a range of financing mechanisms to support the implementation of adaptation strategies, including through grant programs (e.g. State Coastal Conservancy Climate Ready grants, NOAA Coastal Resilience grants, FEMA/Cal OES Hazard Mitigation funding) and utilization of in-lieu fees collected as mitigation for shoreline armoring.
- (LCP) j. Work with entities that plan or operate infrastructure, such as Public Works, Santa Cruz County Sanitation District, Water Districts, the Regional Transportation Commission, Caltrans and PG&E, to plan for potential realignment of public infrastructure impacted by sea level rise, with emphasis on critical accessways.
- (LCP) k. Support efforts to develop and implement innovative design alternatives that reduce or eliminate flood damage, especially those which would qualify through FEMA as acceptable alternatives to elevation under the National Flood Insurance Program (NFIP). Encourage homeowners to implement voluntary floodproofing measures in conjunction with development that is not required to be elevated.
- (LCP) l. **Shoreline Management Plan(s)** Pursue grant funding to enable creation of Shoreline Management Plan(s) for the shoreline areas within the Urban and Rural Services Lines, where such Plans would be structured around sections of the shoreline with similar existing conditions and potential hazards. Shoreline Management Plans will need to address potential effects of development, shoreline armoring, at-grade and elevated buildings, especially on beach and at lagoon areas, and could identify potential opportunities to improve public access to the coast, protection of coastal resources, and adaptation of public roads and infrastructure. Shoreline management plans would include the short- and long-term goals for the specified area, the management actions and policies necessary for reaching hazard reduction, environmental and public access goals, and necessary monitoring and maintenance to ensure effectiveness. Shoreline Management Plan(s) would examine priorities for shoreline management, timelines, options, specific projects to be implemented, phasing and action triggers. As components of the management plans, assess seasonal and long-term shoreline changes and the potential for flooding or damage from erosion, sea level rise, waves, and storm surge. Plans would provide requirements for adapting existing development, public improvements, coastal access, recreational areas, and other coastal resources. Plans would assess the impact of existing and future development, and evaluate the feasibility of hazard avoidance, managed retreat, restoration of the sand supply and beach nourishment in appropriate areas. Plans would incorporate strategies necessary to manage and adapt to changes in wave, flooding, and erosion hazards due to sea level rise.
- (LCP) m. The County will work with coastal property owners to seek funding for preparation of Shoreline Management Plan(s), which would identify specific objectives for defined (sub)area(s) of the County's coastline. Any subareas would be defined geographically where

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multiple adjacent properties would be managed toward the same objective, with policies that apply in the areas.

Chapter 16.10

GEOLOGIC HAZARDS

Sections:

16.10.010	Purpose.
16.10.020	Scope.
16.10.022	Statutory authorization.
16.10.025	Basis for establishing the areas of special flood hazard <u>Reserved.</u>
16.10.030	Amendment procedure.
16.10.035	Conflict with existing regulations.
16.10.036	Warning and disclaimer of liability.
16.10.037	Severability.
16.10.040	Definitions.
16.10.050	Requirements for geologic assessment.
16.10.060	Assessment and report preparation and review.
16.10.070	Permit conditions <u>Incorporation of technical recommendations into project.</u>
16.10.080	Project density limitations.
16.10.090	Project denial.
16.10.100	Exceptions.
16.10.105	Notice of geologic hazards in cases of dangerous conditions.
16.10.110	Appeals.
16.10.120	Violations.
16.10.130	Fees.

16.10.010 Purpose.

The purposes of this chapter are:

- (A) Policy Implementation. To implement the policies of the ~~National Flood Insurance Program of the Federal Insurance Administration,~~ the State of California Alquist-Priolo Earthquake Fault Zoning Act, the Santa Cruz County General Plan, and the Land Use Plan of the Local Coastal Program; ~~and~~
- (B) Public Health and Safety. To minimize injury, loss of life, and damage to public and private property caused by the natural physical hazards of earthquakes, floods, landslides, and coastal processes; ~~and~~
- (C) Development Standards. To set forth standards for development and building activities that will reduce public costs by preventing inappropriate land uses and development in areas where natural dynamic processes present a potential threat to the public health, safety, welfare, and property; and
- (D) Notice of Hazards. To ~~assure~~ ensure that potential buyers are notified of property located in an area of ~~special flood~~ geologic and coastal hazard, and to ~~assure~~ ensure that those who occupy areas of ~~special flood~~ geologic and coastal hazard assume responsibility for their actions.

16.10.020 Scope.

This chapter sets forth regulations and review procedures for development and construction activities including grading, septic systems installation, development permits, changes of use as specified in SCCC 16.10.040(49N)(h6), building permits, minor land divisions, and subdivisions throughout the County ~~and particularly within mapped geologic hazards areas and areas of special flood hazard (SFHAs).~~ These regulations and procedures shall be administered through a system of geologic hazard assessment, technical review, development and building permits.

16.10.022 Statutory authorization.

The State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local government units the authority to adopt regulations designed to promote public health, safety, and general welfare of its citizenry through the adoption of the ~~following geologic hazard and floodplain management regulations~~ of this chapter.

~~16.10.025 Basis for establishing the areas of special flood hazard.~~

~~The areas of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in the flood insurance study (FIS) dated April 15, 1986, and accompanying flood insurance rate maps (FIRMs) and flood boundary and floodway maps (FBFMs), dated April 15, 1986, and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this chapter. This FIS and attendant mapping is the minimum area of applicability of the flood regulations contained in this chapter, and may be supplemented by studies for other areas. The FIS, FIRMs, and FBFMs are on file at the County Government Center, Planning Department. [Ord. 4518 C § 2, 1999].~~

16.10.030 Amendment procedure.

Any revision to this chapter which applies to the Coastal Zone shall be reviewed by the Executive Director of the California Coastal Commission to determine whether it constitutes an amendment to the Local Coastal Program. When an ordinance revision constitutes an amendment to the Local Coastal Program, such revision shall be processed pursuant to the hearing and notification provisions of ~~Chapter~~SCCC 13.03-~~SCCC~~ and shall be subject to approval by the California Coastal Commission.

16.10.035 Conflict with existing regulations.

This chapter is not intended to repeal, nullify, or impair any existing easements, covenants, or deed restrictions. If this chapter and any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

~~16.10.036 Warning and disclaimer of liability.~~

~~The degree of flood protection required by this chapter is considered reasonable for regulatory purposes based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by artificial or natural causes. This chapter does not imply that land outside the special flood hazard areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Santa Cruz County, any officer or employee thereof, the State of California, or the Federal Insurance Administration, Federal Emergency Management Agency, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. [Ord. 4518 C § 2, 1999].~~

16.10.037 Severability.

This chapter and the various parts hereof are hereby declared to be severable. Should any section of this chapter be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the chapter as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

16.10.040 Definitions.

For the purposes of this chapter, the following definitions apply:

~~(1) “Accessory use” means any use which is clearly incidental and secondary to the main use and does not change the character of the main use.~~

~~(2A) “Active fault” means a geologic feature (fault or landslide) which shows evidence of movement, that has had surface displacement, or activity within Holocene time (about the last 11,000 years).~~

~~(B) “Active landslide” means a landslide that is presently moving or has recently moved as indicated by distinct topographic slide features such as sharp, barren scarps, cracks, or tipped (jackstrawed) trees.~~

~~(3C)~~ “Addition” means improvement to an existing structure that increases ~~theits~~ area, measured in square feet. The use of breeze ways, corridors, or other non-integral connections between structures shall not cause separate buildings or structures to be considered additions to an existing structure.

~~(4D)~~ “Adjacent/contiguous parcel” means a parcel touching the subject parcel and not separated from the subject parcel by a road, street or other property.

~~(5)~~ —“Area of special flood hazard” means an area having special flood hazard as identified by the Federal Insurance Administration, through the Federal Emergency Management Agency, and shown on an FHBM or FIRM map as Zone A, AO, A1—A30, AE, A99, V1—V30, VE or V. Also known as special flood hazard area (SFHA).

~~(6)~~ —“Base flood” means a flood which has a one percent chance of being equaled or exceeded in any given year. For flood insurance purposes “100-year flood” and “base flood” have the same meaning.

~~(7)~~ —“Basement” means, for the purposes of this chapter, any area of the building having its floor subgrade (below ground level) on all sides.

~~(8E)~~ “Beach erosion” means temporary or permanent reduction, transport or removal of beach sand by littoral drift, tidal actions, storms or tsunamis.

~~(9)~~ —“Certified engineering geologist” means a registered geologist who is licensed by the State of California to practice the subspecialty of engineering geology.

~~(10F)~~ “Coastal bluff” means a bank or cliff along the coast subject to coastal erosion processes, including historic wave erosion. “Coastal bluff” refers to the top edge, face, and base of the subject bluff.

~~(G)~~ “Bluff line or edge” means the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a step like feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge. The termini of the bluff line, or edge along the seaward face of the bluff, shall be defined as a point reached by bisecting the angle formed by a line coinciding with the general trend of the bluff line along the seaward face of the bluff, and a line coinciding with the general trend of the bluff line along the inland facing portion of the bluff. Five hundred feet shall be the minimum length of bluff line or edge to be used in making these determinations.

~~(11H)~~ “Coastal dependent uses” means any development or use which would not function or operate unless sited on or adjacent to the ocean.

~~(12I)~~ “Coastal erosion processes” means natural forces that cause the breakdown and transportation of earth or rock materials on or along beaches and bluffs. These forces include, but are not limited to, landsliding, surface runoff, wave action and tsunamis.

~~(13J)~~ “Coastal hazard areas” means areas which are subject to physical hazards as a result of coastal processes such as landsliding, erosion of a coastal bluff, and inundation or erosion of a beach by wave action.

~~(14)~~ —“Coastal high hazard area” means areas subject to high velocity waters, including tidal and coastal inundation. These areas and base flood elevations are identified on a Flood Insurance Rate Map (FIRM) as Zones V1—30, VE or V.

~~(15K)~~ “County geologist” means a County employee who is registered as a California licensed Professional Geologist licensed with the State of California ~~California Board for Professional Engineers, Land Surveyors and Geologists (R.G.) and who~~ has been authorized by the Planning Director to assist in the administration of this chapter, or a California licensed registered Professional Geologist

~~licensed with the California Board for Professional Engineers, Land Surveyors and Geologists~~ under contract by the County who has been authorized by the Planning Director to assist in the administration of this chapter.

~~(16L)~~ “County geologic advisor” means an individual who is a California licensed pProfessional gGeologist licensed with the California Board for Professional Engineers, Land Surveyors and Geologists~~who is registered as a geologist with the State of California (R.G.)~~, who may be employed by the County to provide geologic services.

~~(17M)~~ “Critical structures and facilities” means structures and facilities which are subject to specified seismic safety standards because of their immediate and vital public need or because of the severe hazard presented by their structural failure. These structures include hospitals and medical facilities, fire and police stations, disaster relief and emergency operating centers, large dams and public utilities, public transportation and communications facilities, buildings with involuntary occupancy such as schools, jails, and convalescent homes, and high occupancy structures such as theaters, churches, office buildings, factories, and stores.

~~(18)~~—“Cumulative improvement” means, for the purposes of calculating “substantial improvement” as defined in subsection (65) of this section, ~~two or more instances of repair, reconstruction, alteration, addition, or improvement to a structure, over the course of five consecutive years. If the value of such activities, when added together, equals or exceeds 50 percent of the market value of the structure, the activity as a whole shall be considered to be a “substantial improvement.”~~

~~(19N)~~ Development/Development Activities. For the purposes of this chapter, ~~and this chapter only~~, any project that includes activity in any of the following categories is considered to be development or development activity. This chapter does not supersede SCCC 13.20.040 for purposes of determining whether a certain activity or project is considered development that requires a coastal development permit; some activities and projects will require coastal development permits although they do not fall under the following specific definition:

~~(a1)~~ The construction or placement of any habitable structure, including a manufactured home and including a non-residential structure occupied by property owners, employees and/or the public;

~~(b2)~~ Modification, reconstruction or replacement of ~~65~~50 percent of the major structural components—consisting of the foundation, floor framing, exterior wall framing, and roof framing—of an existing habitable structure within any consecutive five-year period, or modification, reconstruction or replacement of 50 percent of the major structural components of an existing critical structure or facility, as defined by this chapter, within any consecutive five-year period, whether the work is done at one time or as the sum of multiple projects. For the purpose of this ~~section~~chapter, the following are not considered major structural components: exterior siding; nonstructural door and window replacement; roofing material; decks; chimneys; and interior elements including but not limited to interior walls and sheetrock, insulation, kitchen and bathroom fixtures, mechanical, electrical and plumbing fixtures. The extent of alterations to major structural components will be calculated in accordance with administrative guidelines adopted by resolution of the Board of Supervisors;

~~(e3)~~ The addition of habitable square footage to any structure, where the addition increases the habitable square footage by more than 50 percent or 500 square feet, whichever is greater, over the existing habitable space within a consecutive five-year period. This allows a total increase of up to 50 percent of the original habitable space of a structure, whether the additions are constructed at one time or as the sum of multiple additions over a consecutive five-year period;

~~(d4)~~ An addition of any size to a structure that is located on or adjacent to ~~on~~ a coastal bluff, on a dune, or in the coastal hazard area, that extends the existing structure in a seaward direction;

(e5) A division of land or the creation of one or more new building sites, except where a land division is accomplished by the acquisition of such land by a public agency for public recreational use;

(f6) Any change of use from nonhabitable to habitable, according to the definition of “habitable” found in this section, or a change of use from any noncritical structure to a critical structure;

(g7) Any repair, alteration, reconstruction, replacement or addition affecting any structure that meets either of the following criteria:

(ia) Posted “Limited Entry” or “Unsafe to Occupy” due to geologic hazards, or

(ib) Located on a site associated with slope stability concerns, such as sites affected by existing or potential debris flows;

(c) Defined as a critical structure or facility;

(h8) Grading activities of any scale in the 100-year floodplain or the coastal hazard area, and any grading activity which requires a permit pursuant to ~~Chapter~~SCCC 16.20-~~SCCC~~;

(i9) Construction of roads, utilities, or other facilities;

(j10) Retaining walls which require a building permit, retaining walls that function as a part of a landslide repair whether or not a building permit is required, shoreline and coastal bluff protection structures, sea walls, rip-rap erosion protection or retaining structures, and gabion baskets;

(k11) Installation of a septic system;

(l12) Any human-made change to developed or undeveloped real estate in the special flood hazard area, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials. This is in addition to any activity listed in ~~subsections paragraphs (19)(a)(1)~~ through (k11) of this subsection; or

(m13) Any other project that is defined as development under SCCC 13.20.040, and that will increase the number of people exposed to geologic hazards, or that is located within a mapped geologic hazard area, or that may create or exacerbate an existing geologic hazard, ~~shall~~may be determined by the Planning Director to constitute development for the purposes of geologic review.

(200) “Development envelope” means a designation on a site plan, ~~or~~ parcel map or grading plan indicating where buildings, access roads and septic systems, and other development are to be located.

(21P) “Fault zones” ~~means~~ are areas delineated by the State Geologist, pursuant to the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 et seq.) which encompasses the traces of active faults; as well as a zone or zones of fracture designated in the General Plan or Local Coastal Program Land Use constraints maps, or other maps and source materials authorized by the Planning Director.

(Q) “Fault trace” is that line formed by the intersection of a fault and the earth’ surface and is the representation of a fault as depicted on a map, including maps of earthquake fault zones.

(22R) “Fill” means the deposition of earth or any other substance or material by artificial means for any purpose, or the condition resulting from a fill taking place.

~~(23) —“Flood boundary floodway map” means the map adopted by the Board of Supervisors and used for land use planning and permit review on which the Federal Insurance Administration has delineated the areas of special flood hazard.~~

~~(24) —“Flood control structure” means any structure or material, including but not limited to a berm, levee, dam or retaining wall, placed in areas where flooding occurs, and constructed for the purpose of protecting a structure, road, utility or transmission line.~~

~~(25S)~~ “Flood insurance rate map (FIRM)” means the map adopted by the Board of Supervisors and used for insurance purposes on which the Federal Insurance Administration has delineated the special flood hazard areas, base flood elevations and the risk premium zones applicable to the community. The FIRM became effective on April 15, 1986, for insurance purposes.

~~(26) —“Flood insurance study” means the official report on file with the Planning Department provided by the Federal Emergency Management Agency entitled, “The Flood Insurance Study, Santa Cruz County, California” that includes flood profiles, the FIRM, the flood boundary floodway map, and the water surface elevation of the base flood.~~

~~(27) —“Floodplain” means any land area susceptible to being inundated by water from any source. The 100-year floodplain is used for planning purposes by Federal agencies and the County. For many larger and more densely populated drainages, the 100-year floodplain is designated on flood boundary and floodway maps prepared by the Federal Insurance Administration. See also “area of special flood hazard.”~~

~~(28) —“Floodplain Administrator” means the Planning Director, or single staff member that is designated by the Director, to manage the administration and implementation of the National Flood Insurance Program regulations and the flood control provisions of this chapter.~~

~~(29) —“Floodproofing” means any combination of structural and nonstructural additions, changes or adjustments to nonresidential structures which reduce or eliminate flood damage to real estate or improved property.~~

~~(30) —“Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to carry and discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot at any point. Also referred to as the regulatory floodway.~~

~~(31T)~~ “Geologic hazard” means a threat to life, property, or public safety caused by geologic or hydrologic processes such as flooding, wave inundation, landsliding, erosion, surface fault ground rupture~~faulting~~, ground cracking, and secondary seismic effects including liquefaction, landsliding, tsunami and ground shaking.

~~(32U)~~ “Geologic hazards assessment” means a summary of the possible geologic hazards present at a site conducted by the ~~staff County geologist~~Geologist or a California licensed pProfessional gGeologist.

~~(33V)~~ “Geologic report, full” means a complete geologic investigation conducted by an certified engineering professional geologist hired by the applicant, ~~and~~ completed in accordance with the County geologic report guidelines, and accepted by the County.

~~(W)~~ “Geotechnical investigation / report” means a report prepared by a Professional Engineer, hired by the applicant, completed in accordance with the requirements of this chapter, and County soils (geotechnical) report guidelines, and accepted by the County. This term is synonymous with the term “soils investigation,” or “soils report.”

~~(34X)~~ “Grading” means excavating or filling land, or a combination thereof.

~~(35Y)~~ “Habitable” means, for the purposes of this chapter, any structure or portion of a structure, whether or not enclosed, that is usable for living purposes, which includes working, sleeping, eating, recreation, or any combination thereof. The purpose and use of the space, as described above, defines the habitable nature of the space. The term “habitable” also includes any space that is heated or cooled, humidified or dehumidified for the provision of human comfort, and/or is insulated and/or finished in plasterboard, and/or contains plumbing other than hose bibs.

~~(36Z)~~ “Hardship” means, for the purposes of administering SCCC 16.10.100, the exceptional hardship that would result from failure to grant the requested exception. The specific hardship must be exceptional, unusual, and peculiar to the property involved. Economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, personal preferences, or the disapproval of neighbors also cannot qualify as exceptional hardship, as these problems can be resolved through means other than granting an exception, even if those alternative means are more expensive, require a property owner to build elsewhere, or put the parcel to a different use than originally intended or proposed.

~~(37AA)~~ “High and very high liquefaction potential areas” means areas that are prone to liquefaction caused by ground shaking during a major earthquake. These areas are designated on maps which are on file with the Planning Department, and other areas may be identified by a geotechnical report that describes the site conditions.

~~(38)~~ —“Historic structure” means any structure that is: (a) listed individually in the National Register of Historic Places, or preliminarily determined by the Secretary of the Interior to meet the requirements for such listing; (b) certified as or preliminarily determined by the Department of the Interior to be contributing to the historical significance of a registered historical district or a district preliminarily determined to qualify as a historic district by the Secretary of the Interior; (c) individually listed on the State Register of Historic Places which has been approved by the Secretary of the Interior; or (d) individually listed in the inventory of historic structures in a community with a historic preservation program that has been certified either by an approved State program or directly by the Secretary of the Interior.

~~(39BB)~~ “Hydrologic investigation” means a report prepared by a certified engineering professional geologist or civil engineer with expertise in hydrology which analyzes surface hydrology and/or groundwater conditions.

~~(40CC)~~ “Littoral drift” means the movement of beach sand parallel to the coast due to wave action and currents.

~~(41DD)~~ “Liquefaction” means the process whereby saturated, loose, granular materials are transformed by ground shaking during a major earthquake from a stable state into a fluid-like state.

~~(42)~~ —“Lowest floor” means, for flood purposes, the lowest floor of the lowest enclosed area of a structure, including any basement.

~~(a)~~ — An unfinished or flood-resistant enclosure, below the lowest floor, that is usable solely for parking of vehicles, building access or storage in an area other than a basement area, for the purposes of this chapter, is not considered a building’s lowest floor, provided it conforms to applicable nonelevation design requirements, including, but not limited to:

~~(i)~~ — The wet floodproofing standards in SCCC 16.10.070(F)(3)(h)(i);

~~(ii)~~ — The anchoring and construction materials and methods in SCCC 16.10.070(F)(3)(b);

~~(iii)~~ — The standards for septic systems and water supply in SCCC 16.10.070(F)(5) and (6).

~~(b)~~ — For residential structures, all fully enclosed subgrade areas are prohibited as they are considered to be basements. This prohibits garages and storage areas that are below grade on all sides.

~~(43) —“Manufactured home” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term “manufactured home” also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.~~

~~(44) —“Manufactured home park or subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.~~

~~(45) —“Mean sea level” means the National Geodetic Vertical Datum (NGVD) of 1929, or other measurement, to which base flood elevations shown on a community’s flood insurance rate map are referenced.~~

~~(46EE) “Multiple-residential structure” means a single structure containing four or more individual residential units.~~

~~(47FF) “Natural disaster” means any situation in which the force or forces of nature causing destruction are beyond the control of people.~~

~~(48) —“New construction” means, for the purposes of SCCC 16.10.070(F), (G), and (H), structures for which the start of construction commenced on or after April 15, 1986, including any subsequent improvements to such structures.~~

~~(49GG) “Nonessential public structures” means public structures which are not integral in providing such vital public services as fire and police protection, sewer, water, power and telephone services.~~

~~(50) —“Obstruction” includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across, or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, snare or collect debris carried by the flow of water, or is likely to be carried downstream.~~

~~(51) —“One hundred year flood” means a flood that statistically could occur once in 100 years on the average, although it could occur in any year. For flood insurance purposes, “100 year flood” and “base flood” have the same meaning. See “base flood.”~~

~~(52HH) “Planning Director” means the Planning Director of the County of Santa Cruz or his or her their authorized employee designee.~~

~~(II) —“Professional Engineer” means an engineer who is licensed by the State of California to practice engineering.~~

~~(JJ) —“Professional Geologist” means a geologist who is licensed by the State of California to practice geology.~~

~~(53KK) “Public facilities” means any structure owned and/or operated by the government directly or by a private corporation under a government franchise for the use or benefit of the community.~~

~~(54LL) “Recent” means a geologic feature (fault or landslide) which shows evidence of movement or activity within Holocene time (about the last 11,000 years).~~

~~(MM) —“Shoreline or coastal bluff armoring” means any structure or material, including but not limited to riprap or a seawall, placed in an area where coastal processes operate.~~

~~(55) —“Registered geologist” means a geologist who is licensed by the State of California to practice geology.~~

~~(56) —“Registered geotechnical (soils) engineer” means a civil engineer licensed in the State of California, experienced in the practice of soils and foundation engineering.~~

~~(57)~~—Regulatory Floodway. See “floodway.”

~~(58)~~—“Recreational vehicle” means a vehicle which is built on a single chassis; is 400 square feet or less when measured at the largest horizontal projection; designed to be self-propelled or permanently towable by a light-duty truck; and designed primarily not for uses as a permanent dwelling but a temporary living quarters for recreation, camping, travel, or seasonal use.

~~(NN)~~ “Shoreline Protection Exception Area” (“SPEA”) means the coastal bluffs and beaches between Soquel Point and the Capitola city limit and any other area geographic area that may be designated in an adopted Shoreline Management Plan, and describes locations where shoreline and coastal bluff protection structures are acceptable.

~~(5900)~~ “Shoreline and coastal bluff protection structure” means any structure or material, including but not limited to riprap or a seawall, placed in an area where coastal processes operate with the intention of preventing erosion of shoreline and coastal bluff materials.

~~(60PP)~~ “Soils investigation / report” means a report prepared by a ~~registered soils engineer~~ Professional Engineer, hired by the applicant, ~~and~~ completed in accordance with the County soils report guidelines, and accepted by the County. This term is synonymous with the term “geotechnical investigation.”

~~(61QQ)~~ Special Flood Hazard Area (SFHA). See “area of special flood hazard.” The land in a flood plain subject to a 1 percent or greater annual chance of flooding in any given year. Special flood hazard areas are in general shown on a FIRM as Zones A, AO, A1-A30, AE, A99, AH, V1-V30, VE and V, but can also be determined by the Floodplain Administrator to occur where not shown on the FIRM. Also known as the flood hazard area, FHA, area of special flood hazard, or area of the 1% annual chance flood.

~~(62)~~—“Start of construction” means the date the first building permit was issued, provided actual construction, repair, reconstruction, alteration, addition, rehabilitation, placement, or other improvement was begun within the terms of the permit. “Actual construction” means either the first placement of a structure on the site, such as pouring a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds which are not occupied as dwelling units or are not part of the main structure. For the purposes of the phrase “substantial improvement,” “actual construction” means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

~~(63RR)~~ “Structure” means anything constructed or erected which requires a location on the ground, including, but not limited to, a building, manufactured home, gas or liquid storage tank, or facility such as a road, retaining wall, pipe, flume, conduit, siphon, aqueduct, telephone line, electrical power transmission or distribution line.

~~(64)~~—“Substantial damage” means damage of any origin, sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure as it existed before the damage occurred.

~~(65)~~—“Substantial improvement” means any repair, reconstruction, rehabilitation, addition, alteration or improvement to a structure, or the cumulative total of such activities as defined in subsection (18) of this section, the cost of which equals or exceeds 50 percent of the market value of the structure either immediately prior to the issuance of the building permit. This term includes structures that have incurred “substantial damage” regardless of the actual repair work proposed or performed. This term does not

~~include any project or portion of a project to upgrade an existing habitable structure to comply with current State or local health, sanitary, or safety code specifications which are the minimum necessary to assure safe living conditions, any alteration of an historic structure; provided, that the alteration will not preclude the structure's continued designation as an historic structure. (See also "cumulative improvement.")~~

~~(66SS) "Subsurface geologic investigation" means a geologic report prepared by a certified engineering professional geologist that provides information on subsurface materials through trenching, test pits, and borings or other methods acceptable to the County Geologist.~~

~~(67) — V Zone. See "coastal high hazard area."~~

~~(68) — "Violation" means the failure of a structure or other development to be fully compliant with this chapter. A structure or other development without the elevation certificate, other certifications or required permits, or other evidence of compliance required in this chapter is presumed to be in violation until such time as the required documentation has been provided.~~

~~(69) — "Watercourse" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. "Watercourse" includes specifically designated areas in which substantial flood damage may occur.~~

16.10.050 Requirements for geologic and geotechnical assessment.

~~(A) All development is required to comply with the provisions of this chapter, specifically including, but not limited to, the placement of manufactured homes in the areas designated as SFHAs in the flood insurance study.~~

~~(B) Hazard Assessment Required. A geologic hazards assessment shall be required for all development activities, and foundation replacements or upgrades, in the following designated areas: fault zones, sites with suspected instability, 100-year floodplains and floodways, and coastal hazard areas, except: as specified in subsections (C)-(D) and (E) of this section, where a full geologic report will be prepared according to the County guidelines for engineering geologic reports, or where the County Geologist may waive the requirement for a hazard assessment based upon a determination finds that there is adequate information on file. A geologic hazards assessment shall also be required for development located in other areas of geologic hazard, as identified by the County Geologist or designee, using available technical resources, from environmental review, or from other field review.~~

~~(C) Geotechnical (Soils) Report Required. A geotechnical report shall be required when determined to be necessary by County civil engineering staff, the County geologist, or the California Building Code (CBC).~~

~~(D) Geologic Report Required. A full geologic report shall be required for the following:~~

- ~~(1) For all proposed land divisions and critical structures and facilities in the areas defined as earthquake fault zones on the State Alquist-Priolo Earthquake Fault Zoning Act maps;~~
- ~~(2) Whenever a significant potential hazard is identified by a geologic hazards assessment;~~
- ~~(3) For all new reservoirs to serve major water supplies;~~
- ~~(4) Prior to the construction of any critical structure or facility in designated fault zones; and~~

(5) When a property has been identified as “Unsafe to Occupy” due to adverse geologic conditions, no discretionary approval or building permit (except approvals and permits that are necessary solely to mitigate the geologic hazard) shall be issued prior to the review and approval of geologic reports and the completion of mitigation measures, as necessary.

(6) For all new water tanks in excess of 10,000 gallons either as a single tank or multiple tanks on a site, which are located in an area of geologic hazards as identified by the County Geologist;

~~(DE)~~ Potential Liquefaction Area. A site-specific geotechnical/soil investigation (with input from a Professional Geologist, when required by County civil engineering staff or the County Geologist) ~~by a certified engineering geologist and/or soil engineer~~ shall be required for all development applications for more than four residential units, ~~and for structures greater than one story~~ in areas of high or very high liquefaction potential, or when required by the California Building Code. Development applications for four units or less, one story structures and nonresidential projects shall be reviewed for liquefaction hazard through environmental review and/or geologic hazards assessment. When a significant hazard may exist, a site-specific soils investigation shall be required.

~~(EF)~~ Additional Report Requirements. Additional information (including but not limited to full geologic, subsurface geologic, hydrologic, geotechnical or other engineering investigations and reports) shall be required when a hazard or foundation constraint requiring further investigation is identified.

16.10.060 Assessment and report preparation and review.

(A) Timing of Geologic Review. Any required geologic, soil, or other technical report shall be completed, reviewed and accepted pursuant to the provisions of this section before any public hearing is scheduled for consideration of approval of a proposed project, and before any discretionary ~~or~~ development application or building permit is approved or issued. The County Geologist may agree to defer the date for completion, review, or acceptance of any technical report where the technical information is (1) unlikely to significantly affect the size or location of the project, and (2) the project is not in the area of the Coastal Zone where decisions are appealable to the Coastal Commission. In no event shall such be deferred until after the approval or issuance of a building permit.

(1) An application for a geologic hazards assessment shall include a plot plan showing the property boundaries and location of proposed development activities. Any other information deemed necessary by the County Geologist (including but not limited to topographic map, building elevations or grading plans) shall be submitted upon request.

(2) An application for a geologic hazards assessment or a technical report review constitutes a grant of permission for the Planning Director, or agents, to enter the property for the purposes of responding to the application.

(B) ~~Report-Geologic Hazards Assessment~~ Preparation. The geologic hazards assessment shall be prepared by County staff. Alternately, the assessment may be conducted by a private ~~p~~Professional ~~g~~Geologist at the applicant’s choice and expense. Such privately prepared assessments shall, however, be subject to review and ~~approval~~acceptance as specified in this section. Application for review and acceptance of a geologic hazards assessment is not an application for a development permit.

(C) Report Acceptance. All geologic, geotechnical/soils, engineering, and hydrologic reports or investigations submitted to the County as a part of any development application ~~shall~~must be found by the County to conform to State and County report guidelines and requirements. The Planning Director may

require an inspection in the field of all exploratory trenches, test pits, and borings excavated for a technical report.

(D) Geologic Hazard Assessment and Report Expiration. A geologic hazards assessment and all recommendations and requirements given therein shall remain valid for three years from the date of completion, ~~unless a shorter period is specified in the report by the preparer.~~ ~~A full Geotechnical and geologic reports shall beremain valid and all recommendations therein shall remain in effect for three years from the date of completion of the report unless a shorter period is specified in the report by the preparer.~~ ~~The~~An exception to the three-year period of validity is where a change in site conditions, development proposal, technical information or County policy significantly affects the technical data, analysis, conclusions or requirements of the assessment or report; in which case the Planning Director may require a new or revised assessment or report.

(E) Change or Cancellation of Professional In Responsible Charge. When the professional in responsible charge of a report accepted by the County is changed or is no longer involved in the project, notice shall be given by the professional and the property owner to the County within 7 days of such change or cancellation.

16.10.070 Permit conditionsIncorporation of technical recommendations into project.

The recommendations of the geologic hazards assessment, full geologic report, and/or the recommendations of other technical reports (if ~~evaluated~~reviewed and ~~authorized~~accepted by the Planning Director), shall be incorporated into the project plans or included as permit conditions of any permit or approvals subsequently issued for the development. In addition, the requirements described below for specific geologic hazards shall become standard conditions for development, building and land division permits and approvals. No development, building and land division permits or approvals shall be issued, and no final maps or parcel maps shall be recorded, unless such activity is in compliance with the requirements of this section.

(A) General. If a project is not subject to geologic review because the structure is nonhabitable and is not otherwise considered to be development under this chapter, a declaration of restrictions for the nonhabitable structure shall be recorded on the property deed that includes an acknowledgment that any change of use to a habitable use, or physical conversion to habitable space, shall be subject to the provisions of this chapter.

(B) Notice and Acknowledgement of Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required, as a condition of development approval and building permit approval, to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The Notice shall be in a form approved by the County of Santa Cruz, and shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted, and shall include acknowledgements and agreements, as applicable to the specific project.

~~(B)~~ (C) Fault Zones.

(1) Location. Development shall be located away from potentially hazardous areas as identified by the geologic hazards assessment or full geologic report.

(2) Setbacks. Habitable structures shall be set back a minimum of 50 feet from the edge of the area of fault induced offset and distortion of active and potentially active fault traces. This setback may be reduced to a minimum of 25 feet from the edge of this zone, based upon paleoseismic studies that include observation trenches. Reductions of the required setback may

only occur when both the consulting ~~engineering~~ Professional ~~g~~Geologist preparing the study and the County Geologist observe the trench and concur that the reduction is appropriate. Critical structures and facilities shall be set back a minimum of 100 feet from the edge of the area of fault induced offset and distortion of active and potentially active fault traces.

~~(3) — Notice of Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required, as a condition of development approval and building permit approval, to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted.~~

(43) Other Conditions. Other permit conditions, including but not limited to project redesign, elimination of building sites, and the delineation of development envelopes, building setbacks and foundation requirements, shall be required as deemed necessary by the Planning Director.

(CD) Groundshaking.

(1) New Dams. Dams shall be constructed according to high seismic design standards of the Dam Safety Act and as specified by structural engineering studies.

(2) Public Facilities and Critical Structures and Facilities. All new public facilities and critical structures shall be designed to withstand the expected groundshaking during the design earthquake on the San Andreas fault or San Gregorio fault.

(3) Other Conditions. Other permit conditions including but not limited to structural and foundation requirements shall be required as deemed necessary by the Planning Director.

(DE) Liquefaction Potential.

(1) Permit Conditions. Permit conditions including, but not limited to, project redesign, elimination of building sites, delineation of development envelopes and drainage and foundation requirements shall be required as deemed necessary by the Planning Director.

~~(2) — Notice of Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required, as a condition of development approval and building permit approval, to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted.~~

(EF) Slope Stability.

(1) Location. All development activities shall be located away from potentially unstable areas as identified through the geologic hazards assessment, full engineering geologic report, soils (geotechnical) report or other environmental or technical assessment.

(2) Creation of New Parcels. Allow the creation of new parcels in areas with potential slope instability as identified through a geologic hazards assessment, full geologic report, soils (geotechnical) report or other environmental or technical assessment only under the following circumstances:

(a) New building sites, roadways, and driveways shall not be permitted on or across slopes exceeding 30 percent grade.

(b) A full engineering geologic report and any other appropriate technical report shall demonstrate that each proposed parcel contains at least one building site and access which are not subject to significant slope instability hazards, and that public utilities and facilities such as sewer, gas, electrical and water systems can be located and constructed to minimize potential for landslide damage and not cause a health or safety hazard.

(c) New building sites shall not be permitted which would require the construction of engineered protective structures such as retaining walls, diversion walls, debris walls or slough walls, or foundations designed to mitigate potential slope instability problems such as debris flows, slumps or other types of landslides.

(3) Drainage. Drainage plans designed to direct runoff away from unstable areas (as identified from the geologic hazards assessment or other technical report) shall be required. New drainage improvements shall not adversely affect slope stability and not increase the danger that any other property or public improvements will be impacted by potentially unstable slopes or landsliding. Drainage plans shall be completed by a Professional Engineer and reviewed by both the Professional Geologist (if required by the County Geologist) and other Professional Engineers as part of the design team. Such plans shall be reviewed and ~~approved~~accepted by the County Geologist.

(4) Leach Fields. Septic leach fields shall not be permitted in areas subject to landsliding as identified through the geologic hazards assessment, environmental assessment, or full geologic report.

(5) Road and Driveway Reconstruction. Where washouts or landslides have occurred on public or private roads and driveways, road and driveway reconstruction shall meet the conditions of appropriate geologic, soils (geotechnical) and/or engineering reports and shall have adequate geologic, soils, and other engineering supervision and permits as required by the County Code.

(6) New Road and Driveway Construction. New roads and driveways shall be located away from potentially unstable areas as identified through the geologic hazards assessment, full engineering geologic report, soils (geotechnical) report or other environmental or technical assessment.

~~(6) — Notice of Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted.~~

(7) Other Conditions. Other permit conditions including but not limited to project redesign, building site elimination and the development of building and septic system envelopes, building setbacks and foundation and drainage requirements shall be required as deemed necessary by the Planning Director.

~~(FG)~~ Floodplains. The provisions of SCCC 16.13 Flood Hazards shall apply to all development, as defined in that chapter, that is wholly within, partially within, or in contact with any flood hazard area, or other areas as identified by the Floodplain Administrator, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, replacement, repair, relocation or demolition of any building or structure; placement, installation, or replacement of manufactured homes; installation or replacement of tanks;

placement of temporary structures and temporary storage; installation of swimming pools; and miscellaneous and utility structures.

~~(1) Critical and Public Facilities. Critical facilities and nonessential public structures and additions shall be located outside of the 100-year floodplain unless such facilities are necessary to serve existing uses, there is no other feasible location and construction of these structures will not increase hazards to life or property within or adjacent to the floodplain.~~

~~(2) Creation of New Parcels. Allow the creation of new parcels including those created by minor land division or subdivision in the 100-year floodplain only under the following circumstances:~~

~~(a) A full hydrologic report and any other appropriate technical report must demonstrate that each proposed parcel contains at least one building site, including a septic system and leach field site, which is not subject to flood hazard, and that public utilities and facilities such as sewer, gas, electrical and water systems can be located and constructed to minimize flood damage and not cause a health hazard.~~

~~(b) A declaration indicating the limits and elevations of the 100-year floodplain certified by a registered professional engineer or surveyor must be recorded with the County Recorder.~~

~~(c) Adequate drainage to reduce exposure to flood hazards must be provided.~~

~~(d) Preliminary land division proposals shall identify all flood hazard areas and the elevation of the base flood.~~

~~(3) Development Criteria and Design Requirements. All development within the 100-year floodplain shall meet the following criteria. Any addition, repair, reconstruction, rehabilitation, alteration, or improvement of structures for which building permits were issued prior to April 15, 1986, when subject to the definition of "cumulative improvement," does not meet the definition of "substantial improvement" (pursuant to SCCC 16.10.040(18) and (65)), is exempt from this section.~~

~~(a) Location of proposed structures outside of the 100-year floodplain when a buildable portion of the property exists outside the floodplain;~~

~~(b) Anchoring of foundations and the structures attached to them by a method adequate to prevent flotation, collapse and lateral movement of the structures due to the forces that may occur during the base flood, including hydrostatic and hydrodynamic loads and the effects of buoyancy.~~

~~A project involving a manufactured home shall achieve this by one of the following methods:~~

~~(i) By providing an anchoring system designed to withstand horizontal forces of 15 pounds per square foot and uplift forces of nine pounds per square foot; or~~

~~(ii) By the anchoring of the unit's system, designed to be in compliance with the Department of Housing and Development Mobile Home Construction and Safety Standards;~~

~~(c) Shall be constructed with materials and utility equipment resistant to flood damage and using construction methods and practices that minimize flood damage;~~

~~(d) Shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding;~~

~~(e) In flood zones A-O and A-H, provide drainage paths adequate to guide water away from structures and reduce exposure to flood hazards;~~

~~(f) For residential structures, including manufactured homes, the lowest floor, including the basement, and the top of the highest horizontal structural member (joist or beam) which provides support directly to the lowest floor, and all elements that function as a part of the structure, such as furnace, hot water heater, etc., shall be elevated at least one foot above the 100-year flood level. Foundations shall be designed to minimize flood-water displacement and flow damage. Where a piling or caisson foundation system is used the space below the lowest floor shall be free of obstruction or be enclosed with wood-constructed lattice work or screens designed to collapse or be carried away under the stress of flood waters without jeopardizing the structural support of the building. Compliance with the elevation requirement shall be certified by a registered professional engineer, architect, or surveyor and submitted to the Planning Director prior to a subfloor building inspection. Failure to submit elevation certification may be cause to issue a stop work notice for a project. The Planning Director will maintain records of compliance with elevation requirements;~~

~~(g) Nonresidential structures shall be floodproofed if elevation above the 100-year flood level in accordance with subsection (F)(3)(f) of this section is not feasible. Floodproofed structures shall:~~

~~(i) Be floodproofed so that below an elevation one foot higher than the 100-year flood level, the structure is watertight with walls substantially impermeable to the passage of water based on structural designs, specifications and plans developed or reviewed by a registered professional engineer or architect;~~

~~(ii) Be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and~~

~~(iii) Be certified by a registered professional engineer or architect that floodproofing standards and requirements have been complied with; the certification shall be submitted to the Planning Director and shall indicate the elevation to which floodproofing was achieved prior to a final building inspection. The Planning Director shall maintain records of compliance with floodproofing requirements;~~

~~(h) In flood zone AO, residential structures shall have the lowest floor at or above the highest adjacent grade, at least as high as the depth number given on the FIRM, and nonresidential structures, where elevation is not feasible, shall have the lowest floor completely floodproofed at or above the highest adjacent grade, at least as high as the depth number given on the FIRM;~~

~~(i) Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or shall provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices; provided, that they permit the automatic entry and exit of flood waters. Nonresidential structures that are floodproofed in compliance with subsection (F)(3)(g) of this section are an exception to this requirement.~~

~~(4) Recreational Vehicles. RVs that are placed on a site that is within the A, A1-A30, AH, AO or AE zones as designated in the FIS, and that are not fully licensed and highway ready, shall meet the criteria given in subsections (F)(3)(b) and (3)(f) of this section, unless they are on the site for less than 180 consecutive days. For the purposes of this chapter, "highway ready" means on wheels or jacking system, attached to the site by quick disconnect type utilities and security devices, and having no attached additions.~~

~~(5) Septic Systems. New septic systems and leach fields shall not be located within the 100-year floodplain. The capacity of existing septic systems in the floodplain shall not be increased.~~

~~(6) Water Supplies and Sanitary Sewage Systems. All new and replacement water supplies and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.~~

~~(7) Placement of Fill. Allow the placement of fill within the 100-year floodplain in the minimum amount necessary, not to exceed 50 cubic yards. Fill shall only be allowed if it can be demonstrated that the fill will not have cumulative adverse impacts.~~

~~(8) Flood Control Structures. Flood control structures shall be permitted only to protect existing development (including agricultural operations) where no other alternative is feasible or where such protection is needed for public safety. Such structures shall not adversely affect sand supply, increase erosion or cause flooding on adjacent properties or restrict stream flows below minimums necessary to maintain fish and wildlife habitats or be placed further than necessary from the development requiring protection.~~

~~(9) Notice of Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic or flood hazards shall be required, as a condition of development approval and building permit approval, to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel or parcels and the level of prior hydrologic or geologic investigation conducted.~~

~~(10) Other Conditions. Other permit conditions, including but not limited to project redesign, building site elimination, development of building and septic envelopes, and foundation requirements shall be required as deemed necessary by the Planning Director. When base flood elevation data are not provided in the flood insurance study, the Planning Director shall obtain, review, and reasonably utilize the best base flood data available from Federal, State or other sources, as a basis for elevating residential structures and floodproofing nonresidential structures, to at least one foot above the base flood level. Residential structures shall be elevated no less than two feet above natural grade when base flood data do not exist. Nonresidential structures may elevate or flood proof to meet this standard.~~

~~(11) Alteration or Relocation of Watercourse. Adjacent communities, the California Department of Water Resources and the Federal Emergency Management Agency shall be notified prior to any alteration or relocation of a major watercourse. The flood-carrying capacity of any altered or relocated watercourses must be maintained.~~

~~(12) Permit Requirements. All other required State and Federal permits must be obtained.~~

~~(G) Permit Conditions—Floodways. Located within areas of special flood hazard as established in SCCC 16.10.025, and within some areas not mapped as part of the flood insurance study, are areas designated as floodways (see also SCCC 16.10.040(30)). The floodway is an extremely hazardous area due to the quantity and velocity of flood waters, the amount of debris which may be transported, and the high potential for erosion during periods of large stream flows. In the floodway the following provisions apply:~~

~~(1) Development and Building within Floodway Prohibited. All development activity, except for the reconstruction, repair, alteration or improvement of an existing structure, is prohibited within the floodway unless exempted by State or Federal laws. Any encroachment which would cause any increase in the base flood level is prohibited.~~

~~(2) Sites Where Floodway Not Established. Where the Flood Insurance Study or other technical report has identified a flood hazard area but has not designated a floodway, the applicant must demonstrate, through hydrologic analysis, that the project will not adversely affect the carrying capacity of the area. For the purposes of this chapter, "adversely affects" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development in the watershed, will increase the water surface elevation of the base flood more than one foot at any point. The hydrologic analysis must identify the boundaries of the floodway, and the project must comply with the provisions of subsection (G)(1) of this section.~~

~~(3) Setback from Floodway. Where neither a base flood elevation nor a floodway has been identified by the flood insurance study or by a site specific hydrologic study, a minimum setback of 20 feet from the top edge of the banks of a drainage course shall be maintained, and all activity that takes up flood storage area within this setback shall be prohibited. This floodway setback may be reduced by the Planning Director only if a full hydrologic analysis identifies the boundaries of the floodway, demonstrates that a smaller setback will not increase the susceptibility of the proposed activity to flood related hazards, and there is no alternative location outside of the 20 foot setback. (See also Chapter 16.30 SCCC, Riparian Corridor and Wetlands Protection, for vegetation related setbacks from streams.)~~

~~(4) Location of Septic Systems. New septic systems and leach fields shall not be located in the floodway. The capacity of existing systems in the floodway shall not be increased.~~

~~(5) Alteration of Structures in Floodway. Reconstruction, repair, alteration or improvement of a structure in a floodway shall not cause any increase in the base flood elevation. Substantial improvements, regardless of cause, shall only be permitted in accordance with subsection (F) of this section. Repair, reconstruction, alteration, or replacement of a damaged structure which does not exceed the ground floor square area of the structure before the damage occurred shall not be considered an increase in the base flood elevation.~~

~~(6) Permit Requirements. All other required local, State and Federal permits must be obtained.~~

(H) Coastal Bluffs and Beaches.

(1) Criteria in Areas Subject to Coastal Bluff Erosion. Projects in areas subject to coastal bluff erosion shall meet the following criteria:

(a) ~~For all development and for nonhabitable structures, demonstration of the stability of the site, in its current, pre-development application condition, for a minimum of 100 years as determined by either a geologic hazards assessment or a full geologic report. 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 as the required geologic setback. A geologic setback greater than 25 feet may be required based on conditions on and adjoining the site. The geologic setback shall be sufficient to provide a stable site for the subject structure over the expected design life of the structure, as determined through geologic, geotechnical, hydrologic, or other engineering reports, unless a geologic setback exception is approved pursuant to SCCC 16.10.100. The standard for a new or redeveloped residential or commercial structure is an expected design life of 75 years and for a critical structure or facility the expected design life is 100 years.~~

(b) ~~For all development, including that which is cantilevered, and for nonhabitable 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. Within a designated Shoreline Protection Exception Area or other area within the Urban and Rural Services Lines otherwise addressed by an adopted Shoreline Management Plan, the determination of the minimum geologic setback are allowed to and will take into consideration the effect of a proposed protection measure, such as shoreline or coastal bluff armoring structures, retaining walls, or deep piers if the armoring is consistent with the requirements of this Chapter and allowed under the adopted Shoreline Management Plan.~~

~~(c) 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. For all other areas within the Urban and Rural Services Lines, outside a designation Shoreline Protection Exception Area or other area addressed by an adopted Shoreline Management Plan, the calculation of the 75 or 100-year geologic setback, or reduced geologic setback requested under an exception procedure, is allowed to and will take into consideration the effect of legally established shoreline or coastal bluff armoring. However, armoring installed under an emergency coastal permit will not be factored into the setback calculation unless a regular Coastal Development Permit is issued, and all conditions of the permit are met. In addition, technical reports prepared for sites within the Urban and Rural Services Lines should also include analysis based upon an alternative calculation of the 75 or 100-year setback that neglects any effect of an existing shoreline or coastal bluff armoring, in order to provide information and a measure of the effects of the existing protection measure on the site conditions-~~

~~(d) Outside the Urban and Rural Services Lines the calculation of the 75 or 100-year geologic/coastal hazards setback shall not take into consideration the effect of any existing or proposed shoreline or coastal bluff armoring.~~

~~(e) Foundation replacement and/or foundation upgrades involving 50% or more of the existing foundation that meet the definition of development per SCCC 16.10.040(19) and pursuant to SCCC 16.10.040(18) shall meet the 25-foot minimum or the 75 or 100-year geologic setback requirements, setback described in subsection (H)(1) of this section, except that a~~ An exception to the setback requirement may be granted for existing structures that are wholly or partially within the setback ~~if the property owner agrees to record a Notice of Geologic/Coastal Hazard prior to issuance of the building permit, and if the Planning Director determines that:~~

~~(i) The area of the structure that is within the setback does not exceed 25 percent of the total area of the structure will be relocated to maximize the setback from the coastal bluff or shoreline; or~~

~~(ii) The structure cannot be relocated to meet the setback because of inadequate parcel size.~~

~~(ef) Additions, including second story and cantilevered additions, which extend the existing structure in a seaward direction, shall comply with the minimum 25-foot and 75 or 100-year setback, unless an exception to the 75- or 100-year geologic setback is approved.~~

~~(f) — The developer and/or the subdivider of a parcel or parcels in an area subject to geologic hazards shall be required, as a condition of development approval and building permit approval, to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel and the level of geologic and/or geotechnical investigation conducted~~

(g) ~~Approval/Acceptance~~ of drainage and landscape plans for the site by the County Geologist. ~~Drainage plans shall be prepared by a Professional Engineer, and reviewed by both the project Professional Geologist and other Professional Engineer when part of the design team to ensure consistency between other technical reports and project design.~~

(h) Service transmission lines and utility facilities are prohibited unless they are necessary to serve existing ~~residences~~development or public facilities.

~~(i) — New swimming pools, spas and similar in-ground and above-ground water recreation or fishpond types of features shall be located landward of the applicable geologic/coastal hazard setback. Any new water-containing features of this nature shall have double-wall construction with leak detection systems and drains to facilities and locations approved by the County.~~

~~(j) — Accessory structures must include a condition of approval that requires the property owner and all successors in interest to remove the structure if the County Geologist, the Building Official or a Professional Engineer determines that the accessory structure is at risk of failure due to erosion, landslide or other form of bluff collapse or geologic/coastal hazard. In the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site.~~

~~(k)~~ All other required local, State and Federal permits shall be obtained.

~~(l) — Beginning upon adoption of the 2020 Public Safety Element update and its certification by the California Coastal Commission, within the Urban and Rural Services Lines but outside of designated Shoreline Protection Exception Area(s), for structures on coastal bluffs and beaches the following limitations shall not be exceeded more than once prior to 2040 or prior to any substantial amendment of this Section of this Chapter, whichever is later. After the allowed new or major project, subsequent development shall be in accordance with SCCC 16.10.070(H)(1)(a). More strictly limit, or do not approve, new/replacement/reconstruction projects if structures on the site have been damaged by coastal processes.~~

~~(i) — Modification, reconstruction or replacement of 50 percent or more of the major structural components - consisting of the foundation, floor framing, exterior wall framing, and roof framing - of an existing habitable structure, or modification, reconstruction or replacement of 50 percent of the major structural components of an existing critical structure or facility, as defined by this chapter.~~

~~(ii) — The addition of habitable square footage to any structure, where the addition increases the habitable square footage by more than 50 percent over the existing habitable space. This allows a total increase of up to 50 percent of the original habitable space of a structure.~~

(2) Exemption.

(a) Any project which does not specifically require a building permit pursuant to ~~subsection (B) of this section~~ Section 12.10.315 (exempted work) of the County Code is exempt from subsection (HG)(1) of this section, with the exception of: nonhabitable accessory structures that are located within the minimum 25-foot setback from the coastal bluff where there is space on the parcel to accommodate the structure outside of the setback, above-ground pools, water tanks, projects (including landscaping) which would unfavorably alter drainage patterns, and projects involving grading.

For the purposes of this section, “the unfavorable alteration of drainage” is defined as a change that would significantly increase or concentrate runoff over the bluff edge or significantly increase infiltration into the bluff, and “Grading” is defined as any earthwork other than minor leveling, of the scale typically accomplished by hand, necessary to create beneficial drainage patterns or to install an allowed structure, that does not excavate into the face or base of the bluff.

Examples of projects which may qualify for this exemption include: decks which do not require a building permit and do not unfavorably alter drainage, play structures, showers (where runoff is controlled), benches, statues, landscape boulders, benches, and gazebos which do not require a building permit.

(b) If a structure that is constructed pursuant to this exemption subsequently becomes unstable due to erosion or slope instability, the threat to the exempted structure shall not qualify the parcel for a coastal bluff retaining structure or shoreline protection structure. If the exempted structure itself becomes a hazard it shall either be removed or relocated, rather than protected in place at the direction of the County.

(3) Shoreline and coastal bluff protection structures shall be governed by the following:

(a) New Shoreline and coastal bluff protection structures requiring a coastal development permit shall only be allowed within the Urban and Rural Services Line on parcels where both adjacent parcels are already similarly protected, or where necessary to protect existing structures from a significant threat, or on vacant parcels which, through lack of protection threaten adjacent or nearby developed lots, or to protect public works, roads and infrastructure, critical facilities, public beaches, and coastal dependent uses. Developments on and along beaches and coastal lagoons shall not be protected by new shoreline protection structures. New shoreline or coastal bluff armoring is not allowed outside the Urban and Rural Services Lines.

(b) ~~Note:~~ Note: New shoreline and coastal bluff protection structures shall not be allowed where the existing structure proposed for protection was granted an exemption pursuant to subsection (HG)(2) of this section.

~~(b) Seawalls, specifically, shall only be considered where there is a significant threat to an existing structure and both adjacent parcels are already similarly protected.~~

(c) For sites located outside of a designated Shoreline Protection Exception Area, and unless authorized by an adopted Shoreline Management Plan, A application for shoreline and coastal bluff protective structures shall include thorough analysis by a Professional Engineer or Professional Geologist of all reasonable alternatives to such

structures, including but not limited to ~~the following: relocation or partial removal of the threatened structure, protection of only the upper bluff area or the area immediately adjacent to the threatened structure, beach nourishment, and vertical walls. Structural protection measures on the bluff and beach shall only be permitted where nonstructural measures, such as relocating the structure or changing the design, are infeasible from an engineering standpoint or are not economically viable.~~

(i) Relocation or partial removal of the threatened structure;

(ii) Protection of the upper bluff and blufftop (including through planting appropriate native or non-invasive vegetation and removing invasive plant species, and better drainage controls) or the area immediately adjacent to the threatened structure;

(iii) Natural or “green” infrastructure (like vegetated beaches, dune systems, and wetlands);

(iv) Engineered shoreline or coastal bluff armoring (such as beach nourishment, revetments, or vertical walls);

(v) Other engineered systems to buffer coastal areas;

(vi) Combinations or hybrids of the above; and

(vii) Consistency with an approved shoreline management plan, if applicable.

(d) Shoreline and coastal bluff protection measures requiring a coastal development permit may be approved within existing developed areas designated as Shoreline Protection Exception Areas, including projects that replace or modify existing measures in order to reduce and mitigate for impacts on coastal resources. Any new or replacement/redeveloped ~~S~~shoreline and coastal bluff protection structures shall be placed as close as possible to the ~~development~~ coastal bluff or structure requiring protection and must be designed to minimize adverse impacts. Design considerations include but are not limited to the following:

(i) Minimize the footprint of the armoring on the beach;

(ii) Provide for public recreational access;

(iii) Provide for future access for maintenance of the armoring;

(iv) Strive for a continuous lateral pedestrian access as physically feasible;

(v) Minimize visual intrusion by using materials that blend with the color or natural materials in the area, contouring to match nearby landforms as much as possible, and using vegetation for screening;

(vi) Meet approved engineering standards and applicable County Code provisions for the site as determined through the coastal development, building, and grading permit process;

(vii) The design must be based on detailed technical studies to accurately define geologic, hydrologic and oceanographic conditions affecting the site;

(viii) Eliminate or mitigate adverse impacts on local shoreline sand supply; and

(ix) All armoring structures shall incorporate permanent survey monuments for future use in establishing a survey monument network along the coast for use in monitoring seaward encroachment or slumping of armoring and erosion trends.

(e) Unless the existing armoring is being appropriately maintained by a Geologic Hazard Abatement District Plan of Control, or other joint maintenance agreement, for development activities protected by existing shoreline and coastal bluff armoring, the coastal permit application shall include:

(i) Re-assessment of the need for the armoring;

(ii) A report on the need for any repair or maintenance of the device (see paragraph (k) below);

(iii) Evaluation of the stability and condition of the armoring and recommendations for maintenance, repair, or modification, and potential for removal based on changed conditions;

(iv) A report on changed geologic and hydrologic site conditions including but not limited to changes relative to sea level rise;

(v) Assessment of impacts to sand supply and public access and recreational resources;

(vi) Recommendation to avoid or mitigate impacts to sand supply and public access and recreational resources; and

(vii) If approved, such development associated with existing shoreline or coastal bluff armoring shall meet all the other applicable requirements of this policy, including with respect to the impact mitigation requirements, which may include payment of in lieu fees.

(f) For proposed development activities involving a new structure or modification or addition to an existing structure protected by existing riprap, require that the applicant submit a report at the time of filing an application for a coastal development permit for development activities, including an evaluation of the stability and condition of the armoring and recommendations for maintenance, repair, or modification, and potential for removal based on changed conditions. The report shall include a Recovery Plan for the maintenance and repair and potential removal of all or a portion of the existing rip rap revetment, to recover migrated rip rap and to provide for least disturbance of the beach and shoreline while also functioning as necessary to protect the structures on and adjacent to the parcel. The Recovery Plan must incorporate Best Management Practices for maintenance and repair to address potential impacts to sensitive species and

environmental resources, as well as Best Management Practices for construction during maintenance and repair activities.

(g) Proposed shoreline or coastal bluff armoring requiring a coastal development permit should be the least environmentally damaging feasible alternative to serve coastal-dependent uses or to protect a structure or a public beach in danger from erosion:

(i) Unless located within a Shoreline Protection Exception Area or as consistent with an approved Shoreline Management Plan, hard armoring (such as seawalls and revetments, etc.) shall only be allowed within the Urban and Rural Services Line if soft alternatives (such as managed retreat/relocation, beach nourishment, vegetative planting, and drainage control, etc.) are not feasible, or are not the least environmentally damaging feasible alternative;

(ii) Permit shoreline or coastal bluff armoring only if non-structural measures are infeasible from an engineering standpoint or not economically viable;

(iii) Hard armoring by new shoreline and coastal bluff protection measures is not allowed on sites located outside of the Urban and Rural Services Line.; and

(iv) An approved Shoreline Management Plan or projects within a designated Shoreline Protection Exception Area, may authorize hard armoring for identified sections of the coast.

(h) No coastal development permit application for shoreline or coastal bluff armoring shall be approved for the sole purpose of protecting an accessory structure.

(ei) All proposed Sshoreline and coastal bluff armoring protection structures shall be sited and designed to eliminate or mitigate adverse impacts on coastal resource. All unavoidable coastal resource impacts shall be appropriately mitigated. Any approved new, replacement, reconstructed or redeveloped shoreline protection structure must not result in unmitigated impacts to coastal resources including: not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, adversely impact recreational resources, increase erosion on adjacent property, create a significant visual intrusion, or cause harmful impacts to wildlife or fish habitat, archaeologic or paleontologic resources. Shoreline protection structures shall minimize visual impact by employing materials that blend with the color of natural materials in the area.

(i) Reduced or restricted public beach access;

(ii) Adverse effects on shoreline processes and sand supply;

(iii) Increased erosion or flooding on adjacent properties; and

(iv) Adverse impacts on coastal visual or recreational resources, or harmful impacts on wildlife and fish habitats or archaeological or paleontological resources.

(f) All protection structures shall meet approved engineering standards as determined through environmental review.

(j) Mitigation Programs. Require mitigation of unavoidable adverse impacts on coastal resources, including payment of in lieu fees where on-site and/or in-kind options are not possible.

(gk) All shoreline and coastal bluff armoring protection structures requiring a coastal development permit shall include a permanent, County approved, monitoring, and maintenance, and repair program. The program shall include, but is not limited to the following elements:

(i) Monitoring by a professional engineer or geologist familiar and experienced with coastal structures and processes;

(ii) Report to the County upon completion of construction of the armoring and every five years or less thereafter, as determined by either the County Geologist or a qualified professional, for as long as the armoring remains authorized. Reports shall be reviewed and accepted by the County;

(iii) The report shall detail the condition of the structure and list any recommended maintenance and repair work;

(iv) The monitoring plan and periodic report shall address impacts to shoreline processes and beach width, public access, and availability of public trust lands for public use;

(v) The monitoring, maintenance and repair program shall be recorded on the title/deed of the property;

(vi) The program shall allow for County removal or repair of shoreline or coastal bluff armoring, at the owner's expense, if its condition creates a public nuisance or if necessary to protect the public health and safety;

(vii) The program shall include any other monitoring, maintenance, and repair activities the County determines necessary to avoid or mitigate impacts to coastal resources; and

(viii) The initial term of the monitoring, maintenance, and repair program shall be 20 years. Extension beyond 20 years will require an application to amend the conditions of approval of the Coastal Development Permit to extend the monitoring, maintenance, and repair program at which time the program shall be updated if necessary, to address changed shoreline conditions, and may include additional and/or renewed requirements for mitigation of then-existing impacts of the project on coastal resources for the requested term of extension.

(hl) Applications for shoreline or coastal bluff armoring protection structures shall include a construction and staging plan that minimizes disturbance to the beach, specifies the access and staging areas, and includes a construction schedule that limits presence on the beach, as much as possible, to periods of low visitor demand. The plan for repair projects shall include recovery of rock and other material that has been dislodged onto the beach.

(im) All other required local, State and Federal permits shall be obtained.

(n) Within a designated Shoreline Protection Exception Area new shoreline and coastal bluff protection structures shall be allowed on all parcels to protect existing structures, or on vacant parcels which, through lack of protection, threaten adjacent or nearby developed lots, or to protect public roads and infrastructure, public beaches, and coastal dependent uses subject to the following criteria:

(i) Compliance with all applicable provisions of this chapter; and

(ii) New protection structures shall follow the pattern in terms of engineering design, aesthetics, and public access established by the County projects to armor East Cliff Drive at Pleasure Point and the Hook. New protection structures may integrate existing protection materials or structures if approved by the County.

(o) For purposes of determining what repair and maintenance activities require a coastal development permit, use the following criteria found in Title 14, Section 13252, of the California Code of Regulations.

Any method of repair or maintenance of a seawall revetment, bluff retaining wall, breakwater, groin, culvert, outfall, or similar shoreline work that involves:

(i) Repair or maintenance involving substantial alteration of the foundation of the protective work including pilings and other surface or subsurface structures;

(ii) The placement, whether temporary or permanent, of rip-rap, artificial berms of sand or other beach materials, or any other forms of solid materials, on a beach or in coastal waters, streams, wetlands, estuaries and lakes or on a shoreline protective work except for agricultural dikes within enclosed bays or estuaries;

(iii) The replacement of 20 percent or more of the materials of an existing structure with materials of a different kind; or

(iv) The presence, whether temporary or permanent, of mechanized construction equipment or construction materials on any sand area, bluff, or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams.

(p) For purposes of this section the replacement of 50 percent or more of an existing shoreline or coastal bluff protection structure constitutes a new structure.

(4) ~~Alteration of Damaged Structures. Reconstruction, repair, rebuilding, replacement, alteration, improvement, or addition to damaged structures located on a coastal bluff shall proceed according to the following chart: Modification, Reconstruction, or Replacement of Damaged Structures on Coastal Bluffs.~~ If structures located on or at the top of a coastal bluff are damaged as a result of coastal hazards, including slope instability and seismically induced landslides, and where the loss involves 50 percent or more of Major Structural Components, allow repair (development activities) if all applicable regulations can be met, including the minimum 25-foot and the applicable 75 or 100-year geologic/coastal setbacks, or alternate setback authorized by an approved setback exception.

For structures involuntarily damaged by other than coastal hazards (fire, for example), where the loss involves 50 percent or more of the Major Structural Components, allow repair in kind, but encourage relocation to increase the setback if feasible.

Allow other than in-kind reconstruction or replacement of involuntarily damaged structures in accordance with all applicable LCP policies and regulations.

Exemption: Public beach facilities and replacements consistent with Coastal Act Policy 30610(g).

(5) Reconstruction or Replacement of Damaged Structures due to Storm Wave Inundation. If structures located in areas subject to storm wave inundation are damaged as a result of any cause and the loss meets or exceeds 50 percent of the value of the structure before the damage occurred (substantial damage), allow such repair (substantial improvement) only if all applicable regulations in SCCC 16.13 Floodplain Management Regulations and all applicable LCP policies can be met.

Exceptions: Public beach facilities and replacements

Extent of Damage	50% or More of the Value of Structure		Less Than 50% of the Value of Structure	
	Coastal Hazards and Slope Instability	All Other Causes (fire, etc.)	Coastal Hazards and Slope Instability	All Other Causes (fire, etc.)
Location of Existing Structure (vertical axis)				
Existing structure meets setback (less than 10% extends into setback).	Meet all regulations.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations.
Existing structure does not meet setback but could by relocating.	Meet all regulations, including setback for existing structure.	To repair or replace in kind, meet all regulations except setback. Otherwise meet all regulations, including prescribed minimum setback.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations, including prescribed minimum setback.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations, including prescribed minimum setback.
Existing structure does not meet setback	If hazard can be mitigated to provide stability for a period of 100	May repair or replace in kind. To repair or replace in kind, meet all regulations except	May repair or replace in kind. Hazards shall be mitigated to a level that provides	May repair or replace in kind. To repair or replace in kind, meet all regulations except

Extent of Damage	50% or More of the Value of Structure		Less Than 50% of the Value of Structure	
Cause of Damage (horizontal axis)	Coastal Hazards and Slope Instability	All Other Causes (fire, etc.)	Coastal Hazards and Slope Instability	All Other Causes (fire, etc.)
Location of Existing Structure (vertical axis)				
and cannot meet setback by relocating:	years, repair or replace in kind. Meet all regulations except setback. Cannot be rebuilt, even in kind, if hazard cannot be mitigated to a level that provides stability for a period of 100 years.	setback. Hazards shall be mitigated to a level that provides stability for a period of 100 years, if feasible. Projects in excess of "in-kind" shall meet all regulations, including prescribed minimum setback.	stability for a period of 100 years, if feasible. Projects in excess of "in-kind" shall meet all regulations.	setback. Hazards shall be mitigated to a level that provides stability for a period of 100 years, if feasible. Projects in excess of "in-kind" shall meet all regulations including prescribed minimum setback.

~~Public beach facilities are exempt from the provisions of this chart.~~

~~(56) Coastal High Hazard Area Development Criteria. All development, specifically including the placement of and construction on manufactured homes, shall meet the following criteria. For structures that had a building permit issued prior to April 15, 1986, any addition, repair, reconstruction, rehabilitation, alteration, or improvement, which, when subject to the definition of "cumulative improvement," does not meet the definition of "substantial improvement" (pursuant to SCCC 16.10.040(18) and (65)), is exempt from this section. The provisions of SCCC 16.13 Flood Hazards shall apply to all development, as defined in that chapter, that is wholly within, partially within, or in contact with any coastal high hazard area, or other areas as identified by the Floodplain Administrator, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, replacement, repair, relocation or demolition of any building or structure; placement, installation, or replacement of manufactured homes; installation or replacement of tanks; placement of temporary structures and temporary storage; installation of swimming pools; and miscellaneous and utility structures.~~

~~(a) Demonstration that the potential hazards on the site can be mitigated, over the 100-year lifetime of the structure, as determined by the geologic hazards assessment or full geologic report and any other appropriate technical reports. Mitigations can include but are not limited to building setbacks, elevation of the proposed structure and foundation design;~~

~~(b) Location of the proposed structure landward of the reach of mean high tide and outside of the area of storm wave inundation where a buildable portion of the property is outside of the area of storm wave inundation;~~

~~(c) Elevation of all structures (including manufactured homes) on pilings and columns so that the bottom of the lowest portion of the lowest structural member of the lower floor (excluding the pilings or columns) and elements that function as part of the structure, such as furnace, hot water heater, etc., are elevated to or above the base flood level;~~

~~(d) Anchoring of the pile or column foundation and structure attached thereto to prevent flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval);~~

~~(e) A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of subsections (H)(5)(c) and (d) of this section prior to permit issuance;~~

~~(f) The space below the lowest floor shall either be free of obstruction or constructed with nonsupporting breakaway walls, open wood lattice work or insect screening intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall be of nonmasonry construction and have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which do not meet the above material and strength criteria may be permitted only if a registered professional engineer or architect certifies that the designs proposed will permit the breakaway wall to collapse under a water load less than that which would occur during the base flood and that the elevated portion of the building or supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water loads acting simultaneously on all building components. Such enclosed space shall be useable solely for vehicle parking, building access or storage, and shall not be a finished area or habitable area;~~

~~(g) The use of fill for structural support of buildings is prohibited;~~

~~(h) The alteration of sand dunes which would increase potential flood damage is prohibited;~~

~~(i) Compliance with the provisions of subsections (H)(5)(c) and (d) of this section shall be certified by a registered professional engineer or architect and submitted to the Planning Director when the foundation work has been completed. Failure to submit elevation and structural certification may be cause to issue a stop-work notice for a project. The Planning Director shall maintain records of compliance with the elevation requirements;~~

~~(j) Recreational vehicles that are placed on a site that is within the V, V1—V30, or VE zones as designated in the FIS, and that are not fully licensed and highway ready, must meet all the provisions of subsection (H)(5) of this section unless they are on the site for less than 180 consecutive days. For the purposes of this chapter, “highway ready” means on wheels or jacking system, attached to the site by quick disconnect utilities and security devices, and having no attached additions;~~

~~(k) Determination by the Planning Director on the basis of the geologic hazards assessment or geologic report that the mitigation of the hazards on the site is not dependent on shoreline protection structures except on lots where both adjacent parcels are already similarly protected;~~

~~(l) The developer and/or the subdivider of a parcel or parcels in an area subject to geologic hazards shall be required, as a condition of development approval and building permit approval, to record a declaration of geologic hazards with the County Recorder. The declaration shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted;~~

~~(m) All other required State and Federal permits must be obtained.~~

(67) New and Expanded Critical Structures and Facilities. Construction of critical structures and facilities, including the expansion of existing critical structures and facilities, and nonessential public structures shall be located outside areas subject to coastal hazards; unless such facilities are necessary to serve existing uses, there is no other feasible location, and construction of these structures will not increase hazards to life and property within or adjacent to coastal inundation areas.

(78) Creation of New Parcels and Location of New Building Sites. New parcels or building sites created by minor land divisions, subdivisions or development approvals or permits, and multi-residential structures in coastal hazard areas shall conform to the following criteria:

(a) Demonstration by a full geologic report that each proposed building site on the parcel is not subject to any potential hazards and that each site meets the minimum setback given in subsection (HG)(1) of this section;

(b) Determination by the Planning Director based on the geologic report that the long-term stability and safety of the development does not depend on or require shoreline or coastal bluff armoring~~protection structures~~;

(c) The proposed development does not reduce or restrict public access and the proposed development does not require the construction of public facilities, structures, or utility transmission lines in coastal hazard areas or within the 25-foot or 75 or 100-year stability (whichever is greater) setback; and

(d) The developer and/or the subdivider of a parcel or parcels in an area subject to geologic hazards shall be required, as a condition of development approval and building permit approval, to record on the property title/deed a declaration~~Notice~~ of gGeologic/Coastal hHazards. Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The ~~declaration~~Notice shall include a description of the hazards on the parcel and the level of geologic and/or geotechnical investigation conducted~~;~~, and additional acknowledgements and agreements as applicable to the specific project.

(9) Removal Conditions/Development Duration. Development/development activities on private property located in areas subject to coastal hazards shall be conditioned to indicate that it may be required that improvements be removed and the affected area restored if:

(a) the Building Official and/or the County Geologist has issued a final Notice and Order that the structure has become permanently unsafe to occupy due to bluff failure, erosion of the bluff, or coastal hazards;

(b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads);

(c) removal is required pursuant to implementation of an adopted Shoreline Management Plan; or

(d) as provided by conditions of approval for a permit that has been accepted and implemented by an owner of the property.

Such condition shall be recorded on a deed restriction against the subject property.

(10) Abatement of Unsafe Site or Structure. If coastal hazards result in an unsafe site or unsafe structure, dangerous conditions shall be abated in accordance with County regulations and Notice and Orders of the Chief Building Official. If all or any portion of improvements are deemed uninhabitable, the improvements shall be removed and the affected area restored, unless an alternative response is approved by the County of Santa Cruz, and by the California Coastal Commission if the project is within the Coastal Commission's primary jurisdiction. Alternative responses to coastal hazards may include (1) pursuit of a Coastal Development Permit consistent with SCCC 13.20 (Coastal Zone Regulations) and SCCC 16.10 (Geologic Hazards); and/or (2) pursuit of an alternative consistent with an adopted shoreline management plan or plan of control of a Geologic Hazard Abatement District.

(11) If the mean high tide line or the blufftop edge migrates to within 15 feet of a principal, habitable structure to a point where the site or structure is deemed potentially unsafe by County regulations and/or the County Geologist, Civil Engineer, or Chief Building Official, the property owner shall retain a Professional Engineer with experience in coastal processes and hazard response to prepare a geotechnical investigation and Coastal Hazards Report (with input from a Professional Geologist, when required by civil engineering staff or the County Geologist) that addresses whether all or any portions of the residence and related development are threatened by coastal hazards, and that identifies actions that should be taken to ensure safe use and occupancy, which may include removal or relocation of all or portions of the threatened development and improvements, or other alternate responses. The property owner shall undertake activities to pursue an appropriate response in accordance with adopted and applicable County of Santa Cruz and California Coastal Commission regulations. The geotechnical investigation and Coastal Hazards Report shall be submitted to the Executive Director of the California Coastal Commission, and to the Planning Director, Chief Building Official and County Geologist of Santa Cruz County. If the residence or any portion of the residence is proposed to be removed, the Applicant shall submit a Removal and Restoration Plan.

(12) If an appropriate government agency so orders, or as a result of the above-referenced geotechnical investigation and Coastal Hazards Report, it is determined that any portion of the approved development must be removed due to coastal hazards, a Removal and Restoration Plan shall be submitted to the County for review and approval. No removal activities shall commence until the Removal and Restoration Plan and all other required plans and permits are approved. The Plan shall specify that in the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an

approved disposal site. If it is determined that separate grading and coastal development permits are required in order to authorize the activities, the application shall be submitted as soon as immediately feasible, including all necessary supporting information to ensure it is complete. The Removal and Restoration Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, and shall be implemented immediately upon County approval, or County approval of required permit applications, as may be required.

(13) Repetitive loss properties shall be subject to the requirements of SCCC 16.10.070(H)(5) regarding damage due to flooding, storm wave impacts, and inundation. Repetitive loss means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

~~(814)~~ Other Conditions. Other permit conditions including, but not limited to, project redesign, building site elimination, delineation of building and septic system envelopes, building elevation, foundation requirements and drainage plans shall be required as deemed necessary by the Planning Director, or other decision making body.

16.10.080 Project density limitations.

The following requirements shall apply to density calculations for new building sites created through minor land division, subdivision, or other development approval or permit:

(A) Fault Zones.

(1) Exclusion from Density Calculations. The portion of a property within 50 feet of the edge of the area of fault induced offset and distortion of an active or potentially active fault trace shall be excluded from density calculations.

(2) Creation of New Parcels and/or New Building Sites. The following standards shall apply to the creation of new parcels and/or building sites within State Alquist-Priolo earthquake fault zones and County seismic review zones:

(a) All new structures shall meet setbacks as specified in SCCC 16.10.070(B)(2).

(b) Outside of the urban services line and the rural services line, a 20-gross-acre minimum parcel size shall be required, and a 10-gross-acre minimum parcel size shall be required for parcels within the portions of the County seismic review zones that are not also part of a State Alquist-Priolo earthquake fault zone, and are outside the Coastal Zone, if at least 25 percent of the perimeter of the original parcel to be divided is bounded by parcels of one acre or less in size.

(B) Landslides and Steep Slopes. The portion of a property with slopes over 30 percent in urban areas and 50 percent in rural areas, and the portion of a property within recent or active landslides, shall be excluded from density calculations. Landslide areas determined by a geologic report to be stable and suitable for development shall be granted full density credit.

(C) ~~Floodways~~Special Flood Hazard Area. The portion of a parcel within the special flood hazard area~~100-year floodway~~ shall be excluded from any density calculations.

~~(D) Floodplains. The portion of a property within the 100-year floodplain shall be excluded from density calculations.~~

~~(ED) Coastal Hazards. The portions of a property subject to coastal inundation, as determined by a geologic hazards assessment, geologic report, or adopted flood insurance rate map (FIRM), as well as bluff faces, sandy beach areas, and areas subject to the public trust, shall be excluded from density calculations.~~

16.10.090 Project denial.

A development permit or the location of a proposed development shall be denied if the Planning Director determines that geologic hazards cannot be adequately mitigated or the project would conflict with National Flood Insurance Program regulations. Development proposals shall be approved only if the project density reflects consideration of the degree of hazard on the site, as determined from the technical information as reviewed and ~~approved~~accepted by the Planning Director or the decision making body.

16.10.100 Exceptions.

(A) Request for Exception. A request for an exception to the provisions of this chapter including but not limited to an exception to the applicable geologic setback requirement, or the permit conditions, may be considered by the Planning Director, or decision making body, if the exception is necessary to mitigate a threat to public health, safety and welfare or if the exception is necessary to avoid an unconstitutional taking of private property without just compensation pursuant to Policy 6.4.10.

(B) Reason for Request. A request for an exception shall state in writing the reason why the exception is requested, the proposed substitute provisions, when the exception would apply, ~~and~~or the threat to public health, safety, or welfare that would be mitigated.

(C) Required Findings. In granting an exception, the Planning Director or decision making body shall make the following findings:

- (1) That hardship, as defined in SCCC 16.10.040(~~3627~~), exists;~~and~~
- (2) The project is necessary to mitigate a threat to public health, safety, or welfare or to avoid an unconstitutional taking of private property without just compensation pursuant to Policy 6.4.10; ~~and~~
- (3) The request is for the smallest amount of variance from the provisions of this chapter as possible; and
- (4) ~~Adequate m~~Measures will be taken to ensure consistency with the purposes of this chapter and the County General Plan to the maximum extent feasible.
- (5) Any approval of a geologic setback less than the applicable 75- or 100-year standard expected design life is acknowledged and accepted by the property owner and properly characterized and reflected within the Notice of Geologic Hazards to be recorded on the title to the subject property.

~~(D) Exceptions for Projects in the Special Flood Hazard Area. For projects in the SFHAs the following additional procedures and provisions also apply:~~

- ~~(1) Nature of Exception. The exception criteria set forth in this section are based on the general principle of zoning law that exceptions pertain to a piece of property and are not personal in nature. An exception may be granted for a parcel of property with physical characteristics so~~

~~unusual that complying with the requirements of this chapter would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.~~

~~The interest in protecting citizens from flooding is compelling, and the cost of insuring a structure built below flood level so onerous that exceptions from the flood elevation or other health and safety requirements in the flood ordinance shall be granted in rare circumstances and only where no other alternative is available.~~

~~(2) Criteria for Exceptions.~~

~~(a) In considering requests for exceptions, technical evaluations, all other relevant information and standards specified in other sections of this chapter shall be considered, including the following:~~

~~(i) Danger that materials may be swept onto other lands to the injury of others;~~

~~(ii) Danger of life and property due to flooding or erosion damage;~~

~~(iii) Susceptibility of the proposed structure and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;~~

~~(iv) Importance of the services provided by the proposed structure to the community;~~

~~(v) Necessity to the structure of a waterfront location, where applicable;~~

~~(vi) Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;~~

~~(vii) Compatibility of the proposed use with existing and anticipated development;~~

~~(viii) Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;~~

~~(ix) Safety of access to the property in time of flood for ordinary and emergency vehicles;~~

~~(x) Expected heights, velocity, duration, rate of rise, and sediment transport of the floodwater expected at the site; and~~

~~(xi) Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.~~

~~(b) Any applicant to whom an exception is granted shall be given written notice of the terms and conditions, if any, of the exception, and said notice shall also include the following:~~

~~(i) That the issuance of an exception to construct a structure below the base flood level will result in substantially increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage; and~~

~~(ii) That such construction below the base flood level increases risks to life and property; and~~

~~(iii) That a copy of the written notice shall be recorded on the deed so that it appears in the chain of title of the affected parcel of land.~~

~~(c) The Floodplain Administrator will maintain a record of all exception actions, including justification for their issuance, and report such exceptions issued in its biennial report submitted to the Federal Insurance Administration of the Federal Emergency Management Agency.~~

~~(3) Conditions for Exception.~~

~~(a) Exceptions may be issued for new construction, substantial improvement, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing that the procedures of SCCC 16.10.050, 16.10.070, and 16.10.080 have been considered. As the lot size increases beyond one-half acre, the justification required for issuing the exception increases.~~

~~(b) Exceptions shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result from the project.~~

~~(c) Exceptions shall only be issued upon a determination that the exception is the "minimum necessary" considering the flood hazard to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this chapter. For example, in the case of exceptions to an elevation requirement, exceptions need not be granted for permission for the applicant to build at grade, or even to whatever elevation the applicant proposes, but only to that elevation which will both provide relief and preserve the integrity of the regulatory requirements.~~

~~(d) Exceptions shall only be issued upon:~~

~~(i) Showing of good and sufficient cause;~~

~~(ii) Determination that failure to grant the exception would result in a "hardship" (as defined in SCCC 16.10.040) to the applicant; and~~

~~(iii) Determination that the granting of an exception will not result in increased flood heights, additional threats to public safety, or extraordinary public expense; create a nuisance, cause fraud or victimization of the public, or conflict with existing local laws or ordinances.~~

~~(e) Exceptions may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use (a functionally dependent use is one that would not function or operate unless sited on or adjacent to flood-prone location in question); provided, that the provisions of this section are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood, does not result in additional threats to public health or safety, and does not create a public nuisance.~~

~~(f) Exceptions may be issued for the repair or rehabilitation of historic structures (as defined in SCCC 16.10.040) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and that the exception is the minimum necessary to preserve the historic character and design of the structure.~~

~~(g) Upon consideration of the factors in subsection (D)(2)(a) of this section and the purposes of this chapter, conditions may be attached to the granting of exceptions as necessary to further the purposes of this chapter.~~

16.10.105 Notice of geologic hazards in cases of dangerous conditions.

(A) Whenever a site inspection, geologic hazards assessment or full geologic report identifies the presence of a geologic hazard that causes a site, building, structure, or portions thereof to be rendered unsafe or dangerous, then pursuant to the Uniform Code for the Abatement of Structural and Geologic Hazards as amended by SCCC 12.10.~~070(L)~~425, the Planning Director may issue a notice of geologic hazard and order thereon, and may record a notice of geologic hazard with the County Recorder.

(B) The Planning Director may initiate abatement procedures pursuant to the Uniform Code for the Abatement of Structural and Geologic Hazards as amended by SCCC 12.10.~~070(L)~~425.

16.10.110 Appeals.

Except as otherwise provided herein, appeals taken pursuant to the provisions of this chapter shall be made in conformance with the procedures of ~~Chapter~~SCCC 18.10-~~SCCC~~, including appeal of the requirement for geologic hazard assessment or technical report. All appeals taken concerning the decision to issue and record a notice of geologic hazard pursuant to the provisions of SCCC 16.10.105 shall be governed by the procedures commencing with Section 501 of the Uniform Code for the Abatement of Structural and Geologic Hazards as amended by SCCC 12.10.~~425~~~~070(A)(10) through (14)~~.

16.10.120 Violations.

(A) Compliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with all the provisions of this chapter and other applicable regulations. Nothing herein shall prevent the taking of lawful action as necessary to prevent or remedy any violation.

(B) Actions Constituting Violation. In the event of a violation of this chapter or of the provisions of permit conditions as specified in this chapter, or if the permit has been exercised in a manner which creates a nuisance or is otherwise detrimental to the public health, safety and welfare, the permittee shall be given notice of such violation, and a reasonable time shall be specified for its correction.

16.10.130 Fees.

Fees for the geologic hazards assessment, other field reviews, applications for exceptions, and the review of technical reports shall be set by resolution by the Board of Supervisors.