COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

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KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

February 19, 2015

AGENDA DATE: February 25, 2015
Agenda Item #: 7
Time: after 9:00 a.m.

Planning Commission
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

SUBJECT: PUBLIC HEARING TO CONSIDER RECOMMENDATION TO THE BOARD OF SUPERVISORS REGARDING AMENDMENT OF THE COUNTY GENERAL PLAN/LOCAL COASTAL PROGRAM PUBLIC SAFETY AND NOISE ELEMENT, AND AMENDMENT OF COUNTY CODE CHAPTER 16.10 GEOLOGIC HAZARDS ORDINANCE AND FLOODPLAIN REGULATIONS, CHAPTER 16.22 EROSION CONTROL ORDINANCE AND CHAPTER 16.20 GRADING REGULATIONS

Members of the Commission:

The Planning Department received a State grant to fund work on updating the General Plan/Local Coastal Program (GP/LCP) and associated County Code regulations to address reduction of impacts from natural hazards including floods, fires, and coastal hazards. The proposed amendments would be applicable throughout the unincorporated area of the County of Santa Cruz. Because the proposed amendments affect the Coastal Zone the proposal constitutes an amendment of the Local Coastal Program.

PROJECT DESCRIPTION

The proposed update of the GP/LCP Public Safety Element includes amendments to:

- Section 6.2 Coastal Bluffs and Beaches: acknowledge and incorporate sea level rise in policies, and address development on coastal bluffs and beaches, including coastal protection structures.
- Section 6.3 Erosion Control: reduce the amount of land clearing that can be done without a permit.
- Section 6.4 Flood Hazards: acknowledge and incorporate climate change and sea level rise in flood hazard policies, and make other clarifications and updates to flood hazard policies.
- Section 6.5 Fire Hazards: amend for consistency with state law, including road access standards and incorporating the state standard for defensible space of 100 feet around existing structures.
- Existing Sections 6.9a Noise Environment, 6.9b Noise, 6.10 Ground Transportation and 6.11 Air Transportation are removed from the Safety Element and incorporated into a stand-alone Noise Element, Chapter 9, with amendments proposed in order to add material from the State guidelines for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies.

The goals and policies contained in the General Plan and Local Coastal Program are implemented through regulations contained in the County Code. For this reason, the following County Code regulations are also proposed to be amended:

- Chapter 16.10 Geologic Hazards is amended to provide regulations consistent with the proposed GP/LCP Coastal Bluffs and Beaches policy amendments, to remove the floodplain regulations, and to update other regulations for hazards such as landslides, earthquakes and liquefaction.
- Chapter 16.10 currently also includes regulations that apply to floodplains. In order to achieve greater clarity for regulations that apply within floodplains (as opposed to within other geologic hazard areas), and to better incorporate guidance from the Federal Emergency Management Agency (FEMA), a new separate Chapter 16.13 "Floodplain Management Regulation" is proposed.
- Chapter 16.22 Erosion Control land clearing provisions are amended in order to reduce the threshold for when a land clearing permit is required from one acre to one-quarter acre in all areas of the County (the requirement for a permit for any amount of land clearing within sensitive habitat areas would not change). Amendments to provide greater clarity and consistency regarding permit processes are also proposed.
- Chapter 16.20 Grading Regulations are amended to incorporate road access standards consistent with the proposed amendments to the Fire Hazard section of the GP/LCP Safety Element.

BACKGROUND

This project to amend portions of the General Plan/Local Coastal Program (GP/LCP) and the County Code that address public safety was initiated to promote goals, policies and regulations that would increase the resilience of the community relative to the expected impacts of climate change in Santa Cruz County, provide for adaptation strategies, and implement several Priority Actions in the County's Local Hazard Mitigation Plan (LHMP). In 2011 the Planning Department obtained funding from the Department of Housing and Community Development (HCD) Community Development Block Grant (CDBG) Disaster Recovery Initiative grant program to implement recommendations of the LHMP related to flooding, coastal bluffs and beaches, erosion, and fire.

In 2013 the County adopted a Climate Action Strategy (CAS) to address the two pillars of community response to climate change: reduction of greenhouse gas emissions, and adaptation to the environmental changes that are expected to occur. Many of the proposed General Plan policies and code amendments in this package will implement the adaptation portion of the CAS, minimize impacts from climate change, and increase resilience in unincorporated area, including:

- New policies in the General Plan to incorporate the best available science on expected impacts from climate change into analyses of proposed development projects, recognizing that scientific information will improve over time and that the information used to evaluate development projects will be updated periodically;
- New policies and regulations that require "freeboard" in flood elevations, meaning that an extra amount of elevation is added to that required to meet FEMA regulations in order to accommodate sea level rise and other impacts of climate change, and to further reduce the potential for damage;
- Revised coastal bluff and beach policies that reflect a practical, reality-based approach to adapting to sea level rise and increased coastal risks with managed or natural bluff retreat supported in non-urban areas, and coastal protection structures allowed to continue to exist in urban areas.
- An inventory of vulnerable public infrastructure showed that critical transportation and utility infrastructure is in close proximity to coastal bluffs and beaches. A common condition in the urbanized coastal areas of the county is one row of homes along the top of the coastal bluff or beach, with a public street on the inland side of the homes. In these cases any coastal protection structures associated with the homes, and in fact the homes themselves, are protecting or have the potential to protect the street and the critical utilities under the street from damage from sea level rise and coastal erosion. In many cases it is therefore in the public interest to allow these homes to continue to exist and be protected from coastal hazards as sea level rises. An inventory

of coastal development shows that along the top of the coastal bluff from Twin Lakes to Seascape is a nearly unbroken series of homes, about half of which have existing coastal protection structures associated with them. This is not the case in the rural areas, however, which include large parcels of agricultural land, open space and sandy beaches on the North Coast and in the area around San Andreas in the south. Few of the back beaches in the rural have been stabilized in place by protection structures. New policies and regulations reflect these differences by treating rural areas, where managed and natural retreat is an option, differently from areas within the urban and rural services lines.

- Regulations that require property owners in hazard prone areas to acknowledge and accept future losses.

COASTAL BLUFFS AND BEACHES

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. Existing policies in the Local Coastal Program address development on coastal bluffs and beaches, coastal protection structures, and the need to minimize adverse impacts on coastal resources from development in coastal hazard areas. Current scientific predictions regarding climate change and sea level rise require that the County update these policies to acknowledge and incorporate sea level rise in development standards.

Differences Between Urbanized and Non-Urbanized Areas of the County

A fundamental land use policy of Santa Cruz County since adoption of Measure J in 1978 is to encourage new development to locate in 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. Along the coast the USL includes the mid-county communities of Live Oak, Soquel and Aptos/Seacliff/Rio del Mar. The RSL includes locations that reflect urban patterns of development, including La Selva Beach, Place de Mer, Sand Dollar Beach, Canon Del Sol, Sunset Beach, and Pajaro Dunes. In contrast, areas along the coast not within the USL/RSL, such as the North Coast, are characterized by low-intensity development, agriculture, sandy beaches and open space.

The coastal bluffs are comprised of various geologic materials including Purisima Formation sandstone and siltstone, marine terrace deposits, and old sand dunes. Live Oak contains pocket beaches backed by coastal bluffs and lagoons. The area including Aptos and south to Pajaro Dunes is characterized by continuous beach backed by coastal bluffs, the Aptos Creek floodplain, and active dunes and floodplain at the mouth of the Pajaro River.

The area of the County along the coast within the USL/RSL is completely urbanized, and dominated by single-family residential development on top of coastal bluffs and on beaches or back beach areas. This urbanized area along the coast also contains critical public infrastructure such as roads, sewer, water supply, drainage, public coastal access improvements, parking lots and train tracks. In many areas, such as along Opal Cliffs Drive, only one residential lot separates public roads and infrastructure from the coastal bluff and beach. That infrastructure supports public access to the coast, and supports structures, businesses and economic activity related to visitor accommodations and tourism, a key job and business sector.

Shoreline and coastal bluff protection measures are common within the USL/RSL, protecting about one-half of the urbanized area along the coast based on visual estimates, with much higher concentrations in some areas. Coastal protection measures are not common outside of the urban coastal areas. The currently existing types of protection measures include natural stone rip-rap, concrete or wood retaining walls, gabion baskets, and concrete rip-rap of various shapes and sizes.

Some of these existing measures take up areas of the beach that otherwise would be available to the public, some have more visual impacts than others, and some are better-maintained than others.

Overall Approach to Coastal Bluffs and Beaches

The purpose of the update to the Public Safety Element coastal bluffs and beaches section is to create a practical set of policies that meet the goals of increasing resilience to climate change and decreasing exposure to hazards, while continuing to protect the coastal environment and coastal access. Such policies will not be uniform along the entire coast. The proposed amendments are intended to recognize that:

- Urban parts of the coast in the County are fully developed, including with coastal protection structures present along much of the urban coastline;

- Lack of investment in existing development in the urban area is not a desirable outcome. Where there are existing coastal protection structures protecting buildings in the urban area it is in the public interest that those protection structures be recognized, maintained, and within principles of nexus and proportionality, be required to be reconstructed or upgraded from technical, visual, and/or beach access perspective. Coastal protection structures will only be maintained and improved if the development they protect is also allowed to receive investment;

- A policy of managed and natural retreat from rising sea level and increased storm waves is an option in rural areas that are less developed and which lack coastal protection structures and public infrastructure. Managed retreat could have both hazard reduction and environmental benefits;

- Given local erosion rates and the fact that existing protection structures generally provide 100 year protection, the current requirement for a minimum 25 foot setback is typically what governs placement of new construction, and this is expected to continue to be the case for sites within the USL/RSL;

- The potential impact of coastal protection structures on sand supply is best analyzed by geologists on a site specific basis, pending completion of regional scientific studies that are underway on this topic (*Coastal Regional Sediment Management Plan for the Santa Cruz Littoral Cell,* in development, 2014, by Monterey Bay National Marine Sanctuary and the U.S. Army Corps of Engineers, in collaboration with local jurisdictions and stakeholders).

This approach is consistent with our Climate Action Strategy, the County's long standing distinction between urban and rural areas, and with environmental protection and preservation of coastal access. It is important to note that existing policies and ordinances governing new development on vacant lots are quite restrictive and are not proposed to be changed. Other than adding requirements for sea level rise to be considered in all development and new requirements for recorded notices acknowledging, accepting, and releasing the County and California Coastal Commission from liability from hazards by property owners, the amendments focus on improvement and reconstruction of existing development.

Coastal Commission Draft Sea-Level Rise Guidance

The California Coastal Commission recently published a draft guidance document to help coastal communities address sea-level rise in updated Local Coastal Programs. Planning Department staff submitted comments on the draft document along with many other local jurisdictions, organizations and individuals. The County's comments pointed out that there would likely be variability in the types of analyses and actions proposed by local jurisdictions based on different circumstances in each

community, such as development patterns and infrastructure, geology and disparate coastal orientation and processes. The County's comments also highlighted the uncertainty of future sea level rise predictions, and suggested using a reasonable projected level in the short to mid-term, with opportunities to modify policies and standards as warranted in the future by science and/or actual experience with changing conditions in the environment.

While the Coastal Commission statewide staff is still in the process of revising its draft guidance in response to the many comments received, LCP Safety Element amendments recently certified by the Coastal Commission in other jurisdictions provide examples of policies that are promoted by the Commission. Those proceedings were closely followed by staff and they inform the County's proposed approach to amending the coastal hazard policies in the General Plan/LCP.

The proposed amendments incorporate the policies suggested in the Coastal Commission's draft guidance document where the guidance is appropriate for our community, including sea level rise science, using development standards and permit processes to minimize coastal hazards, and maximizing protection of public access, recreation, and protection of sensitive coastal resources. The County's proposed approach diverges from the draft guidance in that the differences between the urbanized coast and rural coast are recognized in the County's proposed policy amendments and these two settings are treated differently. Specifically, it is proposed that in the urban area, policies should allow existing coastal protection structures and proposed improvements to existing coastal protection structures to be considered when the appropriate setback for a reconstruction project is determined. Proposed strategies for calculating when an improvement project is considered to be "reconstruction", and therefore subject to setback regulations, differ from the draft guidance, as does the proposed strategy for addressing uncertainty in the projections of sea level rise in the review process. These topics are discussed in more detail later in this report.

Public Outreach on Coastal Bluff and Beach Policies and Ordinances

County staff met with private sector engineers, geologists, and land use planning consultants (including consultants that represent coastal property owners) experienced with coastal issues in Santa Cruz County to discuss the proposed GL/LCP and ordinance amendments when they were in draft form. County staff also met with Coastal Commission staff to explain the approach that staff's proposed amendments would take and the policy rationale for that approach. Other public outreach included noticing the CEQA environmental review document and comment period which closed on January 21, 2015. Comment letters received are included with correspondence attached as Exhibit M.

Discussion of Sea Level Rise, Coastal Bluff Setbacks, Reconstruction and Improvement of Existing Development, and Other Aspects of the Proposed GP/LCP Policy and Ordinance Amendments

Sea Level Rise. The proposed amendments include a new requirement that sea level rise be factored into calculation of coastal bluff erosion rates. Currently, the best available science for understanding potential sea level rise is considered to be the National Research Council 2012 report *"Sea-Level Rise for the Coastal of California, Oregon, and Washington: Past, Present, and Future"* (NRC 2012). This report presents a range of future sea level rise amounts (1.5 feet to 5.5 feet by the year 2100) based on a range of possible future conditions. Within that range, the report projects a rise of three feet.

Proposed new Safety Element Policy 6.2.11 would allow for establishment and adjustment of the amount of assumed sea level rise to use in geologic analyses to be based on current and future best available science. The proposed amendment to the Geologic Hazards Ordinance, Chapter 16.10, would implement the policy by specifying that, at present, three feet of sea level rise must be assumed when estimating future bluff retreat for development projects. This amount of sea level rise is consistent with the projected sea level rise by the year 2100 presented in the NRC 2012 report. The three feet level could be adjusted when sea level projections are refined by amending the ordinance.

Staff is recommending this approach of designating an initial level, with adjustments in the future as needed, as a practical way of dealing with uncertainties regarding predicting future sea level rise.

Setbacks from the Top Edge of the Coastal Bluff. Under the County's existing regulations, all development must meet a minimum 25-foot or 100-year stability setback from the top edge of a coastal bluff, whichever is greater. Where there is an existing coastal protection structure it is allowed to be considered in the calculation that determines the 100 year setback.

In the case of new development on a vacant lot in the USL/RSL, no change to existing policy is proposed. New development must meet the minimum applicable setback and not rely on coastal bluff protection measures. The situation of improvement and reconstruction of existing development is more complex. An improvement project must meet minimum setbacks when it is rises to the level of "reconstruction" as that is currently defined in the County Code. Reconstruction means a project that "modifies, reconstructs or replaces more than 65% of the major structural components - consisting of foundation, floor framing, exterior wall framing, and roof framing - … within any consecutive five year period" (excerpted from 16.10.040(b)). If there is an existing coastal protection structure that contributes to stability, the setback calculation is allowed to consider that protection structure.

The draft Coastal Commission guidance on coastal bluffs calls for calculations of the setback to *neglect* existing coastal protection. The concept is that the coastal protection structures and the structures they protect should not be improved because improvement prolongs the life of the development. This concept is known as "managed retreat", which holds that, over time, natural coastal bluff retreat processes will occur and they should be allowed to progress. Because staff does not agree that deterioration of structures over time is a realistic approach to hazard reduction in a highly urbanized setting that is already largely protected by bluff walls, seawalls, and rip rap, staff is not proposing to change the policy for parcels located within the USL/RSL, but does propose that policy approach in the non urban areas. County staff cannot support the managed retreat option in the urban areas which are the primary locations of opportunities for visitor access to coastal resources, in a context where adequate public funding or taxpayer support for costs of relocation of public roads and infrastructure is not available. Further, coastal protection structures that are not maintained may themselves negatively affect beaches and coastal access over time.

Staff is proposing new language that will require the setback calculation for reconstruction projects in the rural areas to neglect existing coastal protection. The reason for this is that there are opportunities in the rural area, where parcels are larger, to accommodate increased setbacks and there is much less public infrastructure at risk.

Information on the Concept of "Reconstruction". This definition was added to County Code in 2012 after a lengthy public process that included outreach to architects and engineers to ensure the formula was sensible and user-friendly and approval of the method by the Board of Supervisors. The definition was subsequently approved by the Coastal Commission. The Coastal Commission recently adopted a lower threshold, specifically 50% or more of any one major structural component, cumulative over the life of a structure rather than five years, as part of the Marin County GP/LCP. However, staff is not proposing to change the current County definition because it is the product of a robust public process and because the Marin version would not meet the goals of increasing resilience and protecting public infrastructure.

Opportunity to Upgrade Existing Coastal Protection Structures. Lastly, it is important to note that proposed GP/LCP policies will require that the geologic report for a reconstruction project analyze the stability of the property both with and without any existing or proposed coastal protection structure in place, so that this information is available for decision-making. The existing protection would be evaluated for impacts on public access and recreation, visual impacts, sand supply and impacts on other coastal resources. The evaluation would also identify any benefits the protection measures may provide, including public access, and protection of public roads and infrastructure, and evaluate

opportunities to modify, reconstruct or replace the existing protective device in a manner that would eliminate or minimize those impacts, while maintaining public benefits. Within the limits of nexus and proportionality, conditions of project approval could include elimination or minimization of impacts to coastal resources while maintaining public benefits provided by the existing protection structure.

Amended Declaration of Geologic Hazards. Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.2.20 would add language to the Declaration of Geologic Hazards that is currently required to be recorded on property deeds. The new language will specify that property owners acknowledge and assume risks posed by geologic hazards including sea level rise, and exempt the County and the California Coastal Commission from liability associated with permit approvals.

FLOOD HAZARDS

As with the coastal bluff policies, acknowledgement of future sea level rise is proposed to be incorporated into the sections of the Public Safety Element policy related to flood hazards (Policy 6.4.1). To respond to future sea level rise, proposed amendments would require additional elevation above 100-year flood levels of any new or substantially improved structures on the beach in the high hazard zone. This would be accomplished by requiring 3 feet of "freeboard", or additional structural elevation, above the base flood elevation required by the National Flood Insurance Program (Policy 6.4.9). "Freeboard" is intended to compensate for the many unknown factors that could contribute to flood elevations greater than the elevation calculated for a selected size flood and floodway conditions, such as wave action, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Similarly, an additional increment of 2 feet of elevation of structures in flood hazard areas along creeks and rivers is proposed to provide an increased factor of safety for the same reasons. This would increase protection from flood hazards and help reduce flood damage. The County's proposed levels of freeboard are consistent with recent federal guidance, and compliance will reduce property owner's flood insurance premiums.

Proposed amendments to the County Code are necessary to implement the proposed GP/LCP Safety Element Flood Hazard policy amendments. Amendments to the Geologic Hazard Ordinance, Chapter 16.10, are proposed to separate the floodplain regulations from the rest of the geologic hazards regulations and create a new ordinance containing the floodplain regulations. Current County flood hazard regulations were adopted in 1982. Since that time there have been numerous changes to flood requirements in the California Building Code and Residential Code and through FEMA technical bulletins and updates. Staff proposes to create a separate Flood Hazard Ordinance (County Code 16.13) that will update, clarify and consolidate flood requirements into one stand-alone ordinance (Exhibit F).

FIRE HAZARDS

Fire Hazard policies in the Public Safety Element would be amended for consistency with State law. This involves a number of modifications to existing standards for access and development. Planning Department staff worked with the Fire Prevention Officers section of the Fire Chiefs Association of Santa Cruz County (FPOs) to review the proposed amendments. The FPOs are satisfied with the proposed amendments shown in Exhibit C. The amended policies would incorporate the state standard for defensible space of 100 feet around existing development (Policy 6.5.1). Defensible space refers to the area around a house where the vegetation has been modified to reduce the wildfire threat and to provide space within which firefighters can effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. The existing standard in the General Plan is 30 feet. The primary focus of the first 30 feet is more intense fuel reduction, with less intense fuel reduction in the zone between 30 and 100 feet. These areas are described in the publication *Living With Fire in Santa Cruz County* produced by the Resource Conservation District of Santa Cruz County and California Department of Forestry and Fire Protection Santa Mateo-Santa Cruz Unit.

State law requires persons in control of property in forested or brush-covered areas to create and maintain defensible space. However, fuel reduction activities that remove or dispose of vegetation are also required to comply with all federal, state and local environmental protection laws, including, but not limited to laws protecting threatened and endangered species, sensitive habitats, water quality, air quality, and cultural/archeological resources. Owners must also obtain all required permits. These requirements regarding fuel reduction activities in sensitive habitats and other environmental resource areas are reflected in proposed policy amendments (Policy 6.5.2 and 6.5.3).

As required by State law the proposed amendments to Fire Hazard policies were forwarded to the State Board of Forestry (BOF) for review and comment. The BOF comments are included in Exhibit M. The BOF concern that the GP/LCP policies are too specific, and would lead to confusion and increased workload amending the GP/LCP every time a particular standard changes, is understandable. However, in Santa Cruz County these policies have for many years been found in the Fire Hazards section of the Safety Element, and they represent a comprehensive, accessible listing of policies related to fire hazards that are otherwise found in separate State and local laws and ordinances. The fire hazard mapping referenced in the BOF comments is not located in the GP/LCP document, but is located on the County's Geographic Information System, which includes layers for State Responsibility Area, Fire Hazard Severity Zones, and Critical Fire Hazard areas.

GRADING

Road access standards are contained within County Code 16.20, Grading Regulations. Therefore , ordinance amendments are proposed to Chapter 20 to capture the amended road standards in the General Plan and to bring make the ordinance consistent with State law (Exhibit H).

EROSION

The proposed amendment to the Erosion Control section of the Public Safety Element would reduce the amount of land clearing that can be done without a permit, and would amend other language pertaining to permit requirements (Exhibit C). The proposed amendment would reduce the threshold for when a land clearing permit is required from one acre to one-quarter acre (Policy 6.3.10). It should be noted that the threshold within sensitive habitat areas is not proposed to change, such that any land clearing within such habitat areas will continue to require a permit. Land clearing in the County creates potential for erosion and sediment movement, which can create safety issues on roads, clog drainage infrastructure, and degrade natural watercourses. There has been a noticeable increase within the past few years in land clearing activity in the rural areas of the County. The purpose of the proposed amendment is to help reduce erosion by providing for greater oversight of land clearing projects. The proposed amendments to the Erosion Control Ordinance (County Code 16.22) would implement the policy amendments (Exhibit G).

NOISE

The GP/LCP Safety Element is proposed to be amended to relocate sections 6.9a, 6.9b, 6.10, and 6.11 to a stand-alone GP/LCP Chapter 9, Noise Element, in order to add material from the State guidelines for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies. Specifically, Tables 6-1 and 6-2 has been clarified to distinguish between standards for noise exposure at sensitive receptors and standards that limit noise generation. Table 9-2, Normalization Factors for Calculating Noise Exposure, from the State guidelines has been added. The normalization procedure allows for more refined assessment of locally acceptable noise exposure.

State law mandates seven required General Plan elements. Safety and Noise are two of the required elements. Separating these topics into two elements, rather than retaining the combined one-chapter approach of the current GP/LCP, is more clear and consistent with State law.

ENVIRONMENTAL REVIEW

Environmental review has been required for the proposed project consistent with the requirements of the California Environmental Quality Act (CEQA). The project was reviewed by the County's Environmental Coordinator on December 19, 2014. A preliminary determination to issue a Negative Declaration (Exhibit A) was made on December 23, 2014. The mandatory public comment period expired on January 21, 2015. Comments on the proposed Initial Study / Negative Declaration are included in the exhibits to this report and summarized below.

The California Department of Fish and Wildlife suggested minor edits to the Initial Study. These are appropriate edits and the Initial Study has been revised accordingly (Exhibit B).

A representative of the Watsonville Pilots Association submitted comments related to requiring disclosure statements and overflight easements for developments near the airport. These are not requirements that the County may impose; one applies to disclosure that occurs during a real estate transaction, and the other involves acquisition of easements. It should be noted that the noise standards in the proposed Noise Element are consistent with the California Airport Land Use Planning Handbook. Various changes have been made to clarify certain parts of the Noise Element. A table was added to clarify normalization factors. Units of noise measurement were clarified. The standard for interior noise exposure near the airport was amended to include new or reconstructed residential buildings instead of just discretionary residential development.

PUBLIC AND AGENCY PARTICIPATION, RESPONSES TO COMMENTS RECEIVED

As noted earlier in this report, County staff met with private sector engineers, geologists, and land use planning consultants (including consultants that represent coastal property owners) experienced with issues along the coast in Santa Cruz County and with Coastal Commission staff to discuss the proposed amendments addressing coastal bluffs and beaches. County staff also met with the Fire Prevention Officers section of the Fire Chiefs Association of Santa Cruz County (FPOs), and has considered written comments from the State Board of Forestry, Watsonville Pilots Association, California Department of Fish and Wildlife, and preliminary comments from the California Coastal Commission staff.

Coastal Commission staff submitted a letter requesting additional time to comment and more process at the staff level prior to submitting the proposed amendments to the Planning Commission, Board of Supervisors, and ultimately the Coastal Commission. This request could not be accommodated for several reasons, including the fact that the work funded by the Disaster Recovery Initiative grant must be considered by the Board of Supervisors by March 31st. Staff did have the benefit of the Coastal Commission draft sea level rise policy guidance document, published comments on the document from stakeholders throughout the state, and Coastal Commission staff analysis and Commission action on similar topics associated with LCP policy updates for Solana Beach and Marin County when preparing this proposal.

More importantly, the County recognizes that policy and regulations related to coastal bluffs and beaches is complex and evolving, and it is expected that there will be detailed conversations with the Coastal Commission after the County submits the proposal for certification. In this case it is appropriate for the County to propose a policy regulatory framework that is most appropriate in light of local Santa Cruz County circumstances, and which we believe implements the Coastal Act, and then enter into further discussions and LCP amendment process with the State after the Board of Supervisors has approved the material at a public hearing.

RECOMMENDATION

It is therefore RECOMMENDED that your Commission take the following actions:

1. Conduct a public hearing on the proposed General Plan / LCP and ordinance amendments; and
2. Adopt the resolution (Exhibit A) recommending that the Board of Supervisors adopt the Negative Declaration (Exhibit B), approve amendment of the General Plan/Local Coastal Program Public Safety Element and Noise Element (Exhibits C and D), and approve amendment of County Code Geologic Hazards Ordinance 16.10 (Exhibit E), Floodplain Management Regulations 16.13 (Exhibit F), Erosion Control Ordinance 16.22 (Exhibit G), and Grading Ordinance 16.20(Exhibit H).

Sincerely,

DAVID CARLSON
Resource Planner

KATHY PREVISICH
Planning Director

Exhibits:

A) Resolution recommending the Board of Supervisors approve the CEQA Negative Declaration, the proposed General Plan / Local Coastal Program Amendments, and the proposed amendments to the Santa Cruz County Code
B) Initial Study, Negative Declaration
C) GP/LCP Chapter 6 Public Safety Element clean
D) GP/LCP Chapter 9 Noise Element
E) Geologic Hazards Ordinance, clean
F) Floodplain Management Regulations clean
G) Erosion Control Ordinance clean
H) Grading Regulations, clean
I) GP/LCP Chapter 6 Public Safety and Noise Element strikethrough
J) Geologic Hazards Ordinance, strikethrough
K) Erosion Control Ordinance, strikethrough
L) Grading Regulations strikethrough
M) Correspondence

cc: County Counsel

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Exhibit A

Resolution

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BEFORE THE PLANNING COMMISSION
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA

RESOLUTION NO. ----

On the motion of Commissioner
duly seconded by Commissioner
the following is adopted:

PLANNING COMMISSION RESOLUTION RECOMMENDING AMENDMENT OF THE SANTA CRUZ COUNTY GENERAL PLAN /LOCAL COASTAL PROGRAM PUBLIC SAFETY AND NOISE ELEMENTS, AND AMENDMENTS OF COUNTY CODE GEOLOGIC HAZARDS ORDINANCE, FLOODPLAIN REGULATIONS, EROSION CONTROL ORDINANCE, AND GRADING REGULATIONS

WHEREAS, it is necessary to protect the community from natural hazards, as well as from hazards produced from the built environment; and

WHEREAS, the Safety Element of the General Plan / Local Coastal Program provides for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other seismic and geologic hazards known to the legislative body; flooding; and wildland and urban fires; and

WHEREAS, the Noise Element of the General Plan / Local Coastal Program identifies and appraises noise problems in the community, and analyzes and quantifies, to the extent practicable as determined by the legislative body, current and projected noise levels for various sources; and

WHEREAS, the goal of the Safety Element is to protect human life, private property and the environment, and to minimize public expenses by preventing inappropriate use and development or location of public facilities and infrastructure in those areas which, by virtue of natural dynamic processes or proximity to other activities, present a potential threat to the public health, safety and general welfare; and

WHEREAS, the goal of the Noise Element is to protect the public and sensitive wildlife habitat areas from harmful noise sources such as industrial facilities, automobiles, airplanes, motorcycles, construction noise, surface mining operations, chainsaws, off-road vehicles, loud music, and other noise sources; and

WHEREAS, the purpose of the Geologic Hazards Ordinance, including the floodplain regulations, the Erosion Control Ordinance, and the Grading Regulations are to implement policies of the General Plan / Local Coastal Program; and

WHEREAS, this project to amend portions of the General Plan/Local Coastal Program

(GP/LCP) and the County Code that address public safety was initiated to increase the resilience of the community relative to the expected impacts of climate change in Santa Cruz County, and to implement several Priority Actions in the County's Local Hazard Mitigation Plan; and

WHEREAS, in 2011 the Planning Department obtained funding from the Department of Housing and Community Development Community Development Block Grant Disaster Recovery Initiative (DRI) grant program to implement recommendations of the Local Hazard Mitigation Plan related to flooding, coastal bluffs and beaches, erosion, and fire; and

WHEREAS, coastal communities are particularly vulnerable to impacts from sea level rise and hazards that result from increased extreme weather attributable to climate change, including coastal bluff erosion, increased coastal and riverine flooding, and increased fire hazard, as well as loss of biodiversity and environmental resources; and

WHEREAS, in 2013 the County adopted a Climate Action Strategy to address the two pillars of community response to climate change: reduction of greenhouse gas emissions and adaptation to the environmental changes that are expected to occur; and

WHEREAS, many of the General Plan / Local Coastal Program policies and code amendments in this package are being proposed in order to implement the adaptation portion of the Climate Action Strategy, minimize impacts from climate change, and increase resilience in unincorporated Santa Cruz County; and

WHEREAS, the proposed General Plan / Local Coastal Program Amendments are consistent with other parts of the adopted General Plan; and

WHEREAS, the proposed General Plan / Local Coastal Program Amendments are consistent with the California Coastal Act; and

WHEREAS, environmental review was completed for the proposed General Plan / Local Coastal Program and Ordinance Amendments and the determination was made that the proposed amendments would not have any significant environmental impacts, and a Negative Declaration was prepared in accordance with the California Environmental Quality Act, and was circulated for public review and comment; and

WHEREAS, at its regular meeting on February 25, 2015 the Planning Commission conducted a duly noticed public hearing and considered the Negative Declaration, together with comments received during the public review, and the proposed General Plan / Local Coastal Program and Ordinance Amendments, and considered all evidence and testimony received at the public hearing;

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission recommends that the Board of Supervisors approve the CEQA Negative Declaration (Exhibit B, Planning Commission staff report)and adopt the proposed General Plan / Local Coastal Program Amendments (Exhibits C and D, Planning Commission staff report), and adopt the proposed amendments to the Santa Cruz County Code (Exhibits E, F, G, and H, Planning Commission

staff report).

PASSED AND ADOPTED by the Planning Commission of the County of Santa Cruz, State of California, this 25th day of February, 2015 by the following vote:

AYES: COMMISSIONERS
NOES: COMMISSIONERS
ABSENT: COMMISSIONERS
ABSTAIN: COMMISSIONERS

CASEY HEMARD, Chairperson

ATTEST:

Steve Guiney, Secretary

APPROVED AS TO FORM:

COUNTY COUNSEL

EXHIBIT A

Exhibit B

Initial Study / Negative Declaration

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COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR
http://www.sccoplanning.com/

NEGATIVE DECLARATION

Project: Amendments of General Plan/Local Coastal Program Public Safety and Noise Elements, and Amendments of County Code Geologic Hazards Ordinance, Floodplain Regulations, and Erosion Control Ordinance

APN(S): Countywide

Project Description: Amend the General Plan and Local Coastal Program Public Safety and Noise Elements: Section 6.2 Coastal Bluffs and Beaches; Section 6.3 Erosion Control; Section 6.4 Flood Hazards; and Section 6.5 Fire Hazards. Amend and reorganize Sections 6.9a Noise Environment, 6.9b Noise, 6.10 Ground Transportation, and 6.11 Air Transportation into a stand-alone Noise Element, Chapter 9. Amend the flood hazard provisions and other sections of the County Geologic Hazards Ordinance, County Code Chapter 16.10; create a new separate ordinance, "Floodplain Management Regulations," Chapter 16.13, containing the flood hazard regulations; and amend the land clearing provisions of the Erosion Control Ordinance, Chapter 16.22.

Project Location: Countywide

Owner: N/A

Applicant: County of Santa Cruz

Staff Planner: David Carlson, (831) 454-2530 email: david.carlson@santacruzcounty.us

This project will be considered at a public hearing by the Planning Commission at a date to be determined. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

California Environmental Quality Act Negative Declaration Findings:

Find, that this Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Negative Declaration and the comments received during the public review period, and; on the basis of the whole record before the decision-making body (including this Negative Declaration) that there is no substantial evidence that the project will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Clerk of the Board located at 701 Ocean Street, 5th Floor, Santa Cruz, California.

Review Period Ends: January 21, 2015

Date: _____

_____
TODD SEXAUER, Environmental Coordinator
(831) 454-3511

Updated 6/29/11

County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date:	December 19, 2014	**Application Number:**	N/A
Project Name:	Amendments of General Plan/Local Coastal Program Public Safety and Noise Elements, and Amendments of County Code Geologic Hazards Ordinance, Floodplain Regulations, and Erosion Control Ordinance	**Staff Planner:**	David Carlson

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: County of Santa Cruz **APN(s):** Countywide

OWNER: N/A **SUPERVISORAL DISTRICT:** County-wide

PROJECT LOCATION: The project consists of amendments to the Safety Element of the General Plan and Local Coastal Program, and amendments to County Code Chapters 16.10, Geologic Hazards, and 16.22, Erosion Control, and, therefore, applies throughout the unincorporated area of the County of Santa Cruz.

SUMMARY PROJECT DESCRIPTION: Amend the General Plan and Local Coastal Program Public Safety and Noise Elements: Section 6.2 Coastal Bluffs and Beaches; Section 6.3 Erosion Control; Section 6.4 Flood Hazards; and Section 6.5 Fire Hazards. Amend and reorganize Sections 6.9a Noise Environment, 6.9b Noise, 6.10 Ground Transportation, and 6.11 Air Transportation into a stand-alone Noise Element, Chapter 9. Amend the flood hazard provisions and other sections of the County Geologic Hazards Ordinance, County Code Chapter 16.10; create a new separate ordinance, "Floodplain Management Regulations," Chapter 16.13, containing the flood hazard regulations; and amend the land clearing provisions of the Erosion Control Ordinance, Chapter 16.22.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- ☒ Aesthetics and Visual Resources
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☒ Biological Resources
- ☐ Land Use and Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population and Housing

Exhibit B

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- ☐ Cultural Resources
- ☒ Geology and Soils
- ☐ Greenhouse Gas Emissions
- ☒ Hazards and Hazardous Materials
- ☒ Hydrology/Water Supply/Water Quality
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities and Service Systems
- ☐ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- ☒ General Plan Amendment
- ☐ Land Division
- ☐ Rezoning
- ☐ Development Permit
- ☐ Sewer Connection Permit
- ☐ Coastal Development Permit
- ☐ Grading Permit
- ☐ Riparian Exception
- ☐ LAFCO Annexation
- ☒ Other: Ordinance Amendment

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

Permit Type/Action	Agency
Certification	California Coastal Commission

DETERMINATION:

On the basis of this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed

adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

TODD SEXAUER, Environmental Coordinator

12/19/14
Date


PROJECT LOCATION MAP
SANTA CRUZ COUNTY, CALIFORNIA
Legend
SKYLINE
SAN LORENZO VALLEY
NORTH COAST
SUMMIT
CARBONERA
EUREKA CANYON
APTOS HILLS
BONNY DOON
SOQUEL
APTOS
LIVE OAK
PAJARO VALLEY
LA SELVA
SALSIPUEDES
SAN ANDREAS
SANTA CLARA COUNTY
SAN MATEO COUNTY
MONTEREY COUNTY
Figure 1

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres): Countywide
Existing Land Use: N/A
Vegetation: N/A
Slope in area affected by project: ☐ 0 - 30% ☐ 31 – 100% ☒ N/A
Nearby Watercourse: Countywide
Distance To: N/A

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	Countywide	Fault Zone:	Countywide
Groundwater Recharge:	Countywide	Scenic Corridor:	Countywide
Timber or Mineral:	Countywide	Historic:	Countywide
Agricultural Resource:	Countywide	Archaeology:	Countywide
Biologically Sensitive Habitat:	Countywide	Noise Constraint:	Countywide
Fire Hazard:	Countywide	Electric Power Lines:	Countywide
Floodplain:	Countywide	Solar Access:	Countywide
Erosion:	Countywide	Solar Orientation:	Countywide
Landslide:	Countywide	Hazardous Materials:	Countywide
Liquefaction:	Countywide	Other:	Countywide

SERVICES:

Fire Protection:	Countywide	Drainage District:	Countywide
School District:	Countywide	Project Access:	Countywide
Sewage Disposal:	Countywide	Water Supply:	Countywide

PLANNING POLICIES:

Zone District:	Countywide	Special Designation:	Countywide
General Plan:	Countywide		
Urban Services Line:	☒ Inside	☒ Outside	
Coastal Zone:	☒ Inside	☒ Outside	

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Santa Cruz County is situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and

require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

The California Coastal Zone affects nearly one third of the land in the urbanized area of the unincorporated County with special restrictions, regulations, and processing procedures required for development within that area. Steep hillsides require extensive review and engineering to ensure that slopes remain stable, buildings are safe, and water quality is not impacted by increased erosion. The farmland in Santa Cruz County is among the best in the world, and the agriculture industry is a primary economic generator for the County. Preserving this industry in the face of population growth requires that soils best suited to commercial agriculture remain active in crop production rather than converting to other land uses.

PROJECT BACKGROUND:

This project to amend portions of the General Plan/Local Coastal Program (GP/LCP) and the County Code that address public safety was initiated to increase the resilience of the community relative to the expected impacts of climate change in Santa Cruz County, and to implement several Priority Actions in the County's Local Hazard Mitigation Plan (LHMP).

Regarding climate change, in January, 2013, the County adopted a Climate Action Strategy to address the two pillars of community response to climate change: reduction of greenhouse gas emissions and adaptation to the environmental changes that are expected to occur. Coastal communities are particularly vulnerable to impacts from sea level rise and hazards that result from increased extreme weather. These include coastal bluff erosion, increased coastal and riverine flooding, and increased fire hazard, as well as loss of biodiversity and environmental resources. Many of the General Plan policies and code amendments in this package are being proposed in order to implement the adaptation portion of the Climate Action Strategy, minimize impacts from climate change, and increase resilience in unincorporated Santa Cruz County, such as:

- New policies in the General Plan incorporate using the best available science on expected impacts from climate change to evaluate proposed development projects, and recognize that scientific information will improve over time and that the information used to evaluate development projects will be updated periodically;
- New policies and regulations incorporate the concept of required "freeboard" in flood elevations, meaning that an extra amount of elevation is added to that required to meet FEMA regulations in order to accommodate sea level rise and other impacts of climate change, and to further reduce the potential for damage;
- Revised coastal bluff and beach policies that reflect a practical, reality based approach to adapting to sea level rise and increased coastal risks. An inventory of vulnerable public infrastructure showed that critical transportation and utility infrastructure is in close

proximity to coastal bluffs and beaches. A common condition in the urbanized coastal areas of the county is one row of homes along the top of the coastal bluff or beach, with a public street on the inland side of the homes. In these cases any coastal protection structures associated with the homes, and in fact the homes themselves, are protecting the street and the critical utilities under the street from damage from sea level rise and coastal erosion. In many cases it is therefore in the public interest to allow these homes to continue to exist and be protected from coastal hazards as sea level rises. An inventory of coastal development shows that along the top of the coastal bluff from Twin Lakes to Seascape is a nearly unbroken series of homes, most of which have existing coastal protection structures associated with them. This is not the case in the rural areas, however, and new policies and regulations reflect this difference by treating rural areas, where managed retreat is an option, differently from areas in the urban and rural services lines.

- Regulations that require property owners in hazard prone areas to acknowledge and accept future losses.

Regarding hazard mitigation, in 2011 the Planning Department applied for and received funds for planning activities from the Department of Housing and Community Development Community Development Block Grant (CDBG) 2008 Disaster Recovery Initiative (DRI) Program. The grant was for implementation of Priority Actions in the County's Local Hazard Mitigation Plan: Amend Section 6.2 Coastal Bluffs and Beaches, Section 6.3 Erosion Control, Section 6.4 Flood Hazards, and Section 6.5 Fire Hazards of the General Plan and Local Coastal Program Public Safety and Noise Element and; amend the flood hazard provisions and other sections of the County Geologic Hazards Ordinance, and create a new ordinance, Floodplain Management Regulations, containing the flood hazard provisions, and amend the Erosion Control Ordinance.

DETAILED PROJECT DESCRIPTION:

The proposed project would amend the General Plan and Local Coastal Program (GP/LCP) Public Safety and Noise Elements to include new policies and goals to address climate change mitigation and adaptation strategies, sea level rise and tsunamis. The following sections are proposed to be amended: Section 6.2 Coastal Bluffs and Beaches, Section 6.3 Erosion, Section 6.4 Flood Hazards, Section 6.5 Fire Hazards. Sections 6.9a Noise Environment, 6.9b Noise Element, 6.10 Ground Transportation, and 6.11 Air Transportation would be removed from Chapter 6 and included in a new Chapter 9 as an amended, stand-alone Noise Element.

Summary of Proposed Amendments to GP/LCP Section 6.2, Coastal Bluffs and Beaches

The proposed policy amendments address development on coastal bluffs and beaches, including coastal protection structures and the structures they protect. To respond to future sea level rise proposed policy amendments would require additional elevation of structures on the beach, modify the policies related to coastal bluff setbacks, and require additional

review of coastal protection structures. Under existing policies coastal bluff setback requirements apply uniformly throughout the County. The proposed policy amendments incorporate a strategy for adaptation to future sea level rise that treats urban and rural areas of the County differently, and requires reevaluation of protection structures when the structure being protected is significantly remodeled or rebuilt.

- Add a policy acknowledging sea level rise and incorporate sea level rise in other policies, and in the geologic hazard ordinance; for coastal bluff setback analysis and elevation of structures in the coastal flood hazard area use 3 feet of future sea level rise in the analyses.
- Add a policy addressing uncertainty in current sea level rise projections by allowing for modification of the amount of sea level rise to use in project analysis based on best available science
- Amend the policy on calculation of bluff setback to incorporate future sea level rise as an additional factor in the calculation
- Add a policy that allows consideration of an existing shoreline or coastal bluff protection structure in the calculation of bluff setback within urban areas, but does not allow an existing protection structure to be considered in the bluff setback calculation in rural areas.
- Add a policy that development activities trigger reevaluation of existing shoreline protection; reevaluate the impacts and benefits of any existing shoreline or bluff protection structure, and the impacts/benefits without the protection structure; mitigate adverse impacts while maintaining benefits;
- Amend the policy regarding exceptions for foundation upgrade to allow reductions to the 100 year stability coastal bluff setback for developed lots with existing protection structures if certain criteria are met;
- Amend the policy requiring a Declaration of Geologic Hazards as a condition of project approval to include an acknowledgement and assumption of risk
- Add policies addressing swimming pools and accessory structures
- Amend the policy on reconstruction of damage structures to require reconstructed structures to meet all LCP requirements, except in the case of non-coastal related hazards
- Add an exception for publicly owned facilities on the coastal bluff

See Attachment 1 for a more complete description of proposed changes to coastal bluffs and beaches policies.

Adding future sea level rise to the calculation of the bluff setback would result in increased setbacks for structures on coastal bluffs, and adding sea level rise to the wave run up elevation would result in increased elevation of buildings on the beach.

Current projections of sea level rise are bracketed by a low and a high range which reflects uncertainty about what will actually happen in the future. The General Plan amendment addressing this (6.2.11) specifies that a reasonably foreseeable amount of sea level rise that is within the accepted range be used in project analysis. The amount of sea level rise to use in project analysis would be based on best available science, as periodically updated by the Planning Department. The amount of sea level rise that is currently proposed to be used is three feet, The source for this projection is the National Research Council 2012 report, "*Sea-Level Rise for the Coastal of California, Oregon, and Washington: Past, Present, and Future*". The projection is the mean amount of sea level rise within a projected range of about 17 inches to 5.5 feet by the year 2100. Because of reasonable certainty that sea level will rise to some extent in the future, new policy 6.2.11 would allow for adjustment of the amount of sea level rise to use in project analysis based on future best available science. It should be noted that the highest projected range of sea level rise by mid-century is still less than three feet, and after mid-century the difference between the low and high ranges begins to widen dramatically, indicating increasing uncertainty about future conditions.

Future sea level rise will put additional stress on existing coastal and bluff protection structures and increase rates of coastal bluff erosion. Proposed policy amendments address this issue by establishing a connection between the protection structure and the development it is protecting. Development activities on a lot, as defined in the Geologic Hazards Ordinance, would trigger reevaluation of the protection structure. This is not currently the case. The evaluation would consider the impacts of the protection structure on coastal resources, such as restricted access or visual degradation, and also the benefits provided by the protection structure, such as protection of public access and recreation, and protection of the public roads and infrastructure immediately inland. The proposed policy amendment would facilitate mitigation of the existing impacts on coastal resources, which is not currently possible, and would prevent the scenario of deteriorating walls and other structures becoming eyesores over time if they are not able to be maintained and upgraded.

Development on coastal bluffs in the urban areas of the County occurs in a variety of configurations, with varying bluff setbacks and structural coastal bluff protection measures. These urbanized areas contain public roads and infrastructure that serve existing development and provide access to the coast. In these areas of the County, within the Urban and Rural Services Line, adaptation to sea level rise must consider the impact of coastal development and coastal protection on coastal resources, and, in some cases, the ongoing benefits of continuing to protect existing development, public access, roads, and infrastructure. The current policy allowing exceptions to both the 25-foot minimum and 100-year coastal bluff setback for foundation replacements and upgrades would be replaced

with a policy allowing a limited setback reduction for projects that meet the definition of development/development activities (Foundation replacement or upgrade is no longer part of the definition of development/development activities, therefore, the exception was no longer necessary for these projects). Amended policy 6.2.15 reflects this adaptation response by acknowledging there are situations where allowing a reduction to the required 100-year bluff is appropriate. Specifically, the reduction would apply to urban lots with existing coastal protection structures and no alternative location to relocate or rebuild the existing house. On these lots allowing significant remodel or rebuild of the house would trigger reevaluate the existing protection structure and create the opportunity to mitigate any identified impacts on coastal resources caused by the protection structure, and maintain the benefits of continuing to protect public access, roads, and infrastructure. The amended policy would maintain the 25-foot minimum setback, but would allow the continuation of existing encroachment into the 100-year setback if the structure could not be relocated to meet the 100-year setback. Development on any lot would continue to be constrained by existing site development standards such as setbacks from property lines, height, and neighborhood compatibility standards. It should be noted that the amended policy would not allow any existing undeveloped lot to become developable; it would only apply to development activities, as defined, on existing developed lots.

Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.2.20 would modify the Declaration of Geologic Hazards that is currently required to be recorded on property deeds to include additional language that makes it clear that property owners acknowledge and assume risks posed by geologic hazards, including sea level rise.

If a structure on a coastal bluff is damaged as a result of coastal hazards, current policy (6.2.20) allows it to be reconstructed in-kind, even if the coastal bluff setback is less than 25 feet, if l00-year stability can be provided, possibly with a coastal bluff protection structure. This policy would be modified to require that reconstruction that meets the definition of reconstruction in the Geologic Hazards Ordinance, meet all GP/LCP policies. Specifically, the repaired or reconstructed structure would have to meet the 25-foot minimum setback; however, the project may qualify for a reduction of the 100-year setback as provided by policy 6.2.15. Such a project would also include a reevaluation of any existing coastal protection structure. This proposed policy would likely result in decreased levels of development, and increased coastal bluff setbacks on lots that sustain damage from coastal hazards. Structures that are damaged by non-coastal related hazards, such as fire, could continue to be rebuilt in-kind, according to current policies.

Summary of Proposed Amendments to GP/LCP Section 6.3, Erosion Control

The Erosion Control policy amendment addresses the amount of land clearing that can be done with a permit. The proposed amendment would reduce the threshold for when a land

clearing permit is required from one acre to one quarter acre. Land clearing in the County creates potential for erosion and sediment movement, which can create safety issues on roads, clog drainage infrastructure, and degrade natural water courses. There has been an increase in land clearing activities in the rural areas of the County. The purpose of this amendment is to help reduce erosion by providing for greater oversight of land clearing projects by the County.

See Attachment 1 for a more complete description of proposed changes to erosion policies.

Summary of Proposed Amendments to GP/LCP Section 6.4, Flood Hazards

The proposed policy amendments acknowledge and incorporate sea level rise in flood hazard policies, and make other clarifications to flood hazard policies:

- Modify terminology to use the term "flood hazard area" consistently when referring to riverine or coastal flood hazard areas
- Require additional elevation, or freeboard, above the minimum required flood elevation in coastal hazard areas and other flood hazard areas
- Amend policy on fill placement in the flood hazard area to require no net increase in fill, and no cumulative adverse impact from the fill on or off site

See Attachment 1 for a more complete description of proposed changes to flood hazard policies.

Adding sea level rise to the wave run up elevation would result in increased elevation of structures in flood hazard areas on the beach. This not only addresses sea level rise, but provides a factor of safety for purposes of floodplain management.

"Freeboard" is required to compensate for the many unknown factors that could contribute to flood elevations greater than the elevation calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonably foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science.

Additional elevation of structure in flood hazard areas along creeks and rivers is proposed to provide an increased factor of safety for the same reasons. The current amount of freeboard to use in riverine flood hazard areas is 1 foot, as specified in the Floodplain Management Regulations. The proposed amount is 2 feet, which would increase levels of flood protection.

Summary of Proposed Amendments to GP/LCP Section 6.5, Fire Hazards

- Background information is added to the text. Historical fire information and jurisdictional, regulatory, and planning information related to fire hazards is included.
- Terminology is modified to use the term "fire code official"
- New policies are added regarding defensible space to reflect state laws and guidelines.
- Text is added to the policy on Access Standards 6.5.4 consistent with the State Fire Code and the County Fire Code.
- Text derived from the County Fire Code is added to the policy on Conditions for Project Approval 6.5.6, including the requirement for 100 feet of defensible space in State Responsibility Areas (SRAs) and Very High Fire Hazard Severity Zones (FHSZ), consistent with State law.
- Text is added to the policy on land divisions 6.5.7 to require new building sites to be located outside areas mapped as Very High FHSZs and outside areas mapped on General Plan Resources and Constraints maps as Critical Fire Hazard Areas. The policy is also revised to clarify that Land Clearing Approval may be required pursuant to the Erosion Control Ordinance (SCCC Chapter 16.22).

See Attachment 1 for a more complete description of proposed changes to fire hazard policies.

Fire Hazard policies would be amended for consistency with state law. This involves a number of edits to the standards for access and development. The amended policies would incorporate the state standard for defensible space of 100 feet around existing development. Defensible space refers to the area around a house where the vegetation has been modified to reduce the wildfire threat and to provide space within which firefighters can effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. The existing standard in the General Plan is 30 feet. The primary focus of the first 30 feet is more intense fuel reduction, with less intense fuel reduction in the zone between 30 and 100 feet. These areas are described in the publication Living With Fire in Santa Cruz County produced through a joint effort between the Resource Conservation District of Santa Cruz County and California Department of Forestry and Fire Protection Santa Mateo-Santa Cruz Unit.

State law requires persons in control of property in forested or brush covered areas to create and maintain defensible space. However, fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state and local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, water quality, air quality, and cultural/archeological resources, and to obtain all required permits.

Summary of Proposed Amendments to GP/LCP Sections 6.9 – 6.11, Noise

The GP/LCP is being amended to relocate sections 6.9a, 6.9b, 6.10, and 6.11 from Chapter 6 to a stand-alone Chapter 9, Noise Element, in order to add material from the State guidelines

for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies. Specifically, Tables 6-1 and 6-2 has been clarified to distinguish between standards for noise exposure at sensitive receptors and standards that limit noise generation. Table 9-2, Normalization Factors for Calculating Noise Exposure, from the State guidelines has been added. The normalization procedure allows for more refined assessment of locally acceptable noise exposure.

See Attachment 1 for a more complete description of proposed changes to noise policies.

Summary of Proposed Amendments to Geologic Hazards Ordinance, Chapter 16.10 of the County Code

Proposed amendments are necessary to incorporate the proposed GP/LCP Coastal Bluffs and Beaches policy amendments into the ordinance, to separate the floodplain regulations from the ordinance and create a new ordinance containing the floodplain regulations, and to update other sections to incorporate guidelines that address hazards such as landslides, earthquakes and liquefaction. Current County flood hazard regulations within the County Geologic Hazards Ordinance (Section 16.10) were adopted in 1982. Since that time there have been numerous changes to flood requirements in the California Building Code and Residential Code and through FEMA technical bulletins and updates. The County proposes to create a separate Flood Hazard Ordinance that will update, clarify and consolidate flood requirements into one stand-alone ordinance. The last amendment of the Geologic Hazards Ordinance occurred in 1999.

See Attachments 6 and 7 for a more complete description of proposed changes to the Geologic Hazards Ordinance and the new Floodplain Management Regulations, respectively.

Summary of Proposed Amendments to Erosion Control Ordinance, Chapter 16.22 of the County Code

In the current Erosion Control Ordinance, the thresholds for when a land clearing permit is required are: any amount of clearing in sensitive habitat, one-quarter acre in the Coastal Zone, and one acre or more of land clearing in all other areas of the County. The proposed amendment would reduce the threshold for when a land clearing permit is required from one acre to one-quarter acre in all areas of County. The threshold in sensitive habitat would not change.

See Attachments 8 for a more complete description of proposed changes to the Erosion Control Ordinance.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Would the project:

1.	*Have a substantial adverse effect on a scenic vista?*	☐	☐	☒	☐

***Discussion*:**

The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. Many of the amendments codify regulations that are state law or are already within the County of Santa Cruz fire code. The potential for each area of policy or ordinance amendment to affect visual resources is discussed below.

Coastal Bluffs: Development that occurs on coastal bluffs, including coastal protection structures, has the potential to degrade visual resources along the coast. However, the proposed policy amendments will not increase this existing potential in that no currently unbuildable property will become buildable as a result of the amendments and the policy and ordinance amendments will, in most cases, result in greater setbacks between structures and coastal bluffs than existing policies. This minimizes visibility of buildings from the beach. Policy 6.2.15 gives criteria that, when met, would allow an existing structure that encroaches into the 100 year stability setback to be repaired, improved or replaced. This would only be allowed when there is no alternative location and there is a public benefit. In this case the policy does not increase the coastal bluff setback, but it also does not increase the existing encroachment. The amendments require existing coastal protection structures to be evaluated for negative impacts to coastal resources and public access, and this creates an opportunity for mitigation of existing visual impacts that would not be addressed without the amendments. For example, if older, existing retaining walls must be upgraded they can also be treated using new, more aesthetic techniques that allow walls to be colored and textured to blend with the visual environment. Screening vegetation can also be required.

Beaches and flood elevation: The proposed policy and code amendments require additional elevation of structures on the beach to accommodate future sea level rise. Existing site standards, including height limits, for individual lots would not change. Individual projects must comply with the site standards, or apply for an exception or variance to those standards if the project would exceed the height limit as a result of required flood elevation. Such projects would be subject to discretionary review and a coastal permit, which would require conformance with all regulations protecting scenic resources. This existing process

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

will not change as a result of these amendments.

Fire Hazard Policy: The proposed fire hazard policy amendments and change to the land clearing provision in the Erosion Control Ordinance do not change any existing policies or standards that protect public views. Defensible space standards involve strategic vegetation modification around structures to reduce the spread of fire and provide firefighter access around structures, not clearance of all vegetation or clearance down to bare soil. Therefore, a less than significant impact is anticipated. The change to the erosion control ordinance reduces the amount of land clearing that triggers a requirement for a discretionary permit, and therefore makes more land clearing subject to conditions of approval that can mitigate any impacts. Lastly, the proposed amendments to the GP/LCP implement regulations that are already in place in the County of Santa Cruz fire code.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

Discussion: The project applies countywide which includes County designated scenic roads, public viewshed areas, scenic corridors, designated scenic resource area, and state scenic highway. However, as discussed in response A1, a less than significant impact is anticipated.

3. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐

Discussion: The project applies countywide which includes County designated scenic roads, public viewshed areas, scenic corridors, designated scenic resource area, and state scenic highway. However, as discussed in response A1, a less than significant impact is anticipated.

4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion: The project consists of GP/LCP policy and ordinance amendments, none of which would create a new source of substantial light or glare. Any light and glare issues associated with a particular project would be considered during the normal permit process for that project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. They will not impact Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, or Farmland of Local Importance. No land will be converted from one use to another as a result of the project; therefore, no impact on farmland would occur from project implementation.

2. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. There is no anticipated impact on agricultural zones or uses, or any land under a Williamson Act Contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract.

3. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section*	☐	☐	☐	☒

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

51104(g))?

Discussion: The project would not affect Timber Resources or access to harvest the resource in the future. Timber resources may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations.

4.	*Result in the loss of forest land or conversion of forest land to non-forest use?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of forest land or conversion of forest land to non-forest land. Creation of defensible space around structures is consistent with State law, administered by CAL FIRE, and is not considered the loss of forest land. No impact is anticipated.

5.	*Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. The project would not impact any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project would not result in loss of forest land. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has been relied upon to make the following determinations. Would the project:

1.	*Conflict with or obstruct implementation of the applicable air quality plan?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction and would not create any new sources of air emissions. The project would not conflict with or obstruct any long-range air quality plans of the Monterey Bay Unified Air Pollution

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Control District (MBUAPCD).

2.	*Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction and would not create any new sources of air emissions. The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

3.	*Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments that would not create any new sources of air emissions. The project would not result in a cumulatively considerable net increase of any criteria pollutant.

4.	*Expose sensitive receptors to substantial pollutant concentrations?*	☐	☐	☐	☒

Discussion: The proposed project does not involve construction, and would not generate pollutants. There would be no impact to sensitive receptors.

5.	*Create objectionable odors affecting a substantial number of people?*	☐	☐	☐	☒

Discussion: The project would not create any objectionable odors. There would be no odor impacts as a result of the project.

D. BIOLOGICAL RESOURCES

Would the project:

1.	*Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish*	☐	☐	☒	☐

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

and Wildlife, or U.S. Fish and Wildlife Service?

***Discussion*:** The project consists of countywide GP/LCP policy and ordinance amendments The Fire Hazard policies would be amended for consistency with state law. This involves a number of changes to the standards for access and development. The amended policies would incorporate the relatively new state standard for defensible space around existing development. The existing standard in the General Plan is 30 feet, and would be extended to 100 feet, with the primary focus on the first 30 feet of more intense fuel reduction, and less intense fuel reduction between 30 and 100 feet. Defensible space is not synonymous with clearing. Defensible space refers to that area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. State law requires that persons in control of property in forested or brush covered areas create and maintain defensible space. The goal is to reduce opportunities for fire to spread through continuous canopy or ladder fuels to structures, or from structures to the forest.

State law requiring defensible space (PRC 4291) states that the amount of fuel modification necessary shall take into account the flammability of the structure. In other words, less fuel modification is necessary around buildings that are more fire resistant. The County has adopted the latest version of the California Building Code, including Chapter 7a, Wildland Urban Interface Code, which contains updated standards to increase fire resistive construction requirements for buildings. This will reduce the amount of fuel modification required.

The proposed amendments would not themselves result in physical impacts to the environment. All future projects involving fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state and local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, significant trees, water quality, air quality, and cultural/archeological resources, and obtain any and all required permits. Therefore, the proposed amendments to the fire hazard policies in the GP/LCP would have a less than significant impact on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service.

2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland,*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				

Discussion: See the discussion in D-1. Impacts to sensitive habitats would be less than significant.

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*	☐	☐	☒	☐

Discussion: See discussion in D-1. Impacts to wetlands would be less than significant.

4. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☐	☒	☐

Discussion: See discussion in D-1. The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

5. *Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?*	☐	☐	☒	☐

Discussion: The project would not conflict with any local policies or ordinances and would implement the County Fire Code. See discussions under D-1 above.

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*	☐	☐	☐	☒

Discussion: The proposed project would not conflict with the provisions of any adopted

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. In locations that are subject to the Interim Sand Hills HCP, clearing is included in the 15,000 square feet of take authorized by the HCP and mitigated for by participation in the conservation bank for this habitat.

7.	*Produce nighttime lighting that would substantially illuminate wildlife habitats?*	☐	☐	☒	☐

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. None of the proposed policy amendments would directly create a new source of substantial light or glare, and all light and glare issues would be considered during the normal permit process for an individual project. The proposed coastal bluffs and beaches policy amendments include additional language regarding evaluation of public view during project review. For the most part, the policy and ordinance amendments would result in greater setbacks of structures from coastal bluffs. There may be a small number of projects with a reduced coastal bluff setback, potentially create light or glare issues, but this is expected to create a less than significant impact on visual resources.

E. CULTURAL RESOURCES

Would the project:

1.	*Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. Many of the amendments codify regulations that are state law or are already within the County of Santa Cruz fire code. The County contains a number of historic resources; however, no impacts to historical resources would occur from the proposed project.

2.	*Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. The County contains a number of archaeological resources. However, no impacts to archaeological resources would occur from the proposed project.

3.	*Disturb any human remains, including those interred outside of formal*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

cemeteries?

Discussion: The project would not result in disturbance of human remains. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, for individual projects subject to these amended policies and ordinances, if at any time during site preparation, excavation, or other ground disturbance associated with the project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4.	*Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. The County contains a number of paleontological resources, particularly along the coast. However, no impacts to paleontological resources would occur from the proposed project. No impacts are anticipated.

F. GEOLOGY AND SOILS

Would the project:

1.	*Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*				
	A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	B. Strong seismic ground shaking?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
C. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
D. Landslides?	☐	☐	☐	☒

***Discussion (A through D)*:**

In addition to incorporating the GP/LCP Coastal Bluffs and Beaches policy amendments into the ordinance, and creation of a separate ordinance section for floodplain issues, a general review and amendment of other sections of the Geologic Hazards Ordinance, where necessary, is included as part of this project. The last amendment of the Geologic Hazards Ordinance occurred in 1999, and since that time, the State has updated its guidelines with respect to hazards such as landslides, earthquakes and liquefaction. Staff has reviewed State guidelines and amended the Geologic Hazards Ordinance as appropriate.

Amending the ordinance in this way lessens the exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, ground failure, or landsliding. None of the GP/LCP policies or County Code amendments would allow development where it would otherwise not be allowed. Therefore, no impact would occur.

2. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒

***Discussion*:** See discussion under F-1. Amending the ordinance as discussed would not result in structures located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur.

3. Develop land with a slope exceeding 30%?	☐	☐	☐	☒

***Discussion*:** The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The project would not encourage or result in development on slopes exceeding 30%. Specifically, the project would not encourage or result in any new shoreline or coastal bluff protection structures. Rather the project provides for reevaluation of existing protection

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

structures. The project would result in increased setbacks from coastal bluffs in most cases and does not decrease the setback in any case. The project would not result in any increase in development on slopes that exceed 30%. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒

Discussion: The proposed project would not result in substantial soil erosion or the loss of topsoil. No impact would occur.

5. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☐	☒

Discussion: The proposed project would not result in any increase in development on expansive soils. No impact would occur.

6. Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion: The project would have no direct or indirect impact involving soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water. No impact would occur.

7. Result in coastal cliff erosion?	☐	☐	☒	☐

Discussion:

The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The changes provide for a more conservative analysis of coastal bluff setback. Adding future sea level rise to the calculation of the bluff setback would result in increased setbacks for structures on coastal bluffs. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonably foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science. The source for this projection is the National Research Council 2012 report, "*Sea-Level Rise for the Coastal of California, Oregon, and Washington: Past, Present, and Future*". The projection is the mean amount of sea level rise within a projected range of

about 17 inches to 5.5 feet by the year 2100. It should be noted that the highest projected range of sea level rise by mid-century is still less than three feet, and after mid-century the difference between the low and high ranges begins to widen dramatically, indicating great uncertainty about future conditions. Based on better science in the future, the prescribed amount of sea level rise to use in project design can be updated.

Future sea level rise will put additional stress on existing coastal and bluff protection structures and increase rates of coastal bluff erosion. Proposed policy amendments address this issue by establishing a connection between the protection structure and the development it is protecting. Development activities on a lot, as defined in the Geologic Hazards Ordinance, would trigger reevaluation of the protection structure. This is not currently the case. The evaluation would consider the impacts of the protection structure on coastal resources, such as restricted access or visual degradation, and also the benefits provided by the protection structure, such as protection of public access and recreation, and protection of public roads and infrastructure immediately inland. The proposed policy amendment would facilitate mitigation of impacts on coastal resources, which is not currently possible, and would help prevent the scenario of deteriorating walls and other structures becoming eyesores over time if they are not able to be maintained and upgraded.

Development on coastal bluffs in the urban areas of the County occurs in a variety of configurations, with varying bluff setbacks and structural coastal bluff protection measures. These urbanized areas contain public roads and infrastructure that serve existing development and provides access to the coast. In these areas of the County, within the Urban and Rural Services Line, adaptation to sea level rise must consider the impact of coastal development and coastal protection on coastal resources, and, in some cases, the ongoing benefits of continuing to protect existing development, public access, roads, and infrastructure. The current policy allowing reductions to both the 25-foot minimum and 100-year coastal bluff setback for foundation replacements and upgrades would be replaced with a policy allowing a limited setback reduction for projects that meet the definition of development/development activities (Foundation replacement or upgrade is no longer part of the definition of development/development activities, therefore, the exception was no longer necessary for these projects). Amended policy 6.2.15 reflects this adaptation response by acknowledging there are situations where allowing a reduction to the required 100-year bluff is appropriate. Specifically, the setback reduction would apply to urban lots with existing coastal protection structures and no alternative location to relocate or rebuild the existing house. On these lots the setback reduction allowing significant remodel or rebuild of the house would trigger reevaluate the existing protection structure and create the opportunity to mitigate any identified impacts on coastal resource caused by the protection structure, and maintain the benefits of continuing to protect public access, roads, and

infrastructure. The amended policy would maintain the 25-foot minimum setback, but would allow the continuation of existing encroachment into the 100-year setback if the structure could not be relocated to meet the 100-year setback. Development on any lot would continue to be constrained by existing site development standards such as setbacks from property lines, height, and neighborhood compatibility determinations. It should be noted that the amended policy would not allow any existing undeveloped lot to become developable; it would only apply to development activities, as defined, on existing developed lots. The analysis of such a project would consider the impacts on coastal resources, mitigation measures to eliminate or reduce those impacts, and benefits to public access, roads, and infrastructure.

Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.2.20 would modify the existing Declaration of Geologic Hazards document recorded on property deeds to include additional language address acknowledgement and assumption of risk posed by geologic hazards, including sea level rise.

Current policy allows in-kind reconstruction of a structure on a coastal bluff that is damaged as a result of coastal hazards, regardless of the existing setback, when l00-year stability can be demonstrated, possibly with a coastal bluff protection structure. This policy would be modified to require that any reconstruction meet all GP/LCP policies. Specifically, the repaired or reconstructed structure would have to meet the 25-foot minimum setback; however, the project may qualify for a reduction of the 100-year setback as described above. Such a project would also include a reevaluation of an existing coastal protection structure. This proposed policy would likely result in decreased levels of development, and increased coastal bluff setbacks on coastal bluff lots that sustain damage from coastal hazards. Structures that are significantly damaged by non-coastal related hazards, such as fire, could continue to be rebuilt in-kind.

In summary, the proposed policy amendments would under most circumstances become stricter, and under other circumstances become more flexible. Basing the amendments on different circumstances provides for both setback increases and reductions where it is appropriate while providing for improved long term planning for sea level rise in Santa Cruz County. The proposed policy amendments would increase coastal bluff setbacks because sea level rise would be considered in project analysis. Under the proposed policy amendments the provision allowing structures on bluffs that are severely damaged by coastal hazards to rebuild if the hazard could be mitigated to provide stability over a 100-year period would be eliminated. The proposed policy amendments would facilitate mitigation of impacts on coastal resources from existing development and coastal protection

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

structures by creating a link between the protection structure and the structure being protected. In the urbanized areas of the County the proposed policy amendments would allow for flexibility in meeting the bluff setback under certain circumstances. No increase in the hazard from cliff erosion would result from these amended policies. An overall reduction of hazards from cliff erosion is anticipated as a result of these amended policies.

G. GREENHOUSE GAS EMISSIONS

Would the project:

1.	*Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☐	☐	☐	☒

Discussion: The proposed project would not directly or indirectly generate greenhouse gas emissions. No impact would occur.

2.	*Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*	☐	☐	☒	☐

Discussion: The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impact would occur.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1.	*Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?*	☐	☐	☐	☒

Discussion: The proposed project would not create a significant hazard to the public or the environment. No impacts would occur.

2.	*Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*	☐	☐	☐	☒

Discussion: The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*	☐	☐	☐	☒

Discussion: The proposed project would not result in hazardous emissions or the handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school No impacts would occur.

4. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*	☐	☐	☐	☒

Discussion: The proposed project is not site specific; therefore, no impact would occur.

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not site specific and would not result in a safety hazard for people residing or working near an airport. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not located in the vicinity of a private airstrip. No impact is anticipated.

7. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

The proposed project implements the County of Santa Cruz Local Hazard Mitigation Plan 2010-2015(County of Santa Cruz, 2010) and does not conflict with that Plan. Therefore, no adverse impacts to an adopted emergency response plan or evacuation Plan would occur from project implementation.

8.	*Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*	☐	☐	☐	☒

Discussion: The Fire Hazard policies would be amended for consistency with state law and would implement the County Fire Code. This involves incorporating current state standards for access and development. The amended policies would incorporate the relatively new state standard for defensible space around existing development. The existing standard in the General Plan is 30 feet, and this is now extended out to 100 feet, with the primary focus on the first 30 feet of more intense fuel reduction, and less intense fuel reduction between 30 and 100 feet. Defensible space refers to that area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. State law requires that persons in control of property in forested or brush covered areas create and maintain defensible space. The amended policies would provide for reduced risk from wildland fire. No impact would occur.

I. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1.	*Violate any water quality standards or waste discharge requirements?*	☐	☐	☐	☒

Discussion: The project would have no affect on water quality standards or waste discharge requirements. No impacts are anticipated.

2.	*Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
uses or planned uses for which permits have been granted)?				

Discussion: The project would have no affect on groundwater supplies or groundwater recharge. No impacts are anticipated.

3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*	☐	☐	☐	☒

Discussion: The project would not affect existing drainage patterns. No impacts are anticipated.

4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site?*	☐	☐	☐	☒

Discussion: The project would not affect existing drainage patterns. No impacts are anticipated.

5. *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?*	☐	☐	☐	☒

Discussion: The project would not affect runoff water. No impacts are anticipated.

6. *Otherwise substantially degrade water quality?*	☐	☐	☒	☐

Discussion: The project would not affect water quality standards or waste discharge requirements, groundwater supplies or groundwater recharge, existing drainage patterns, or runoff water. No impacts are anticipated.

7. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Insurance Rate Map or other flood hazard delineation map?

Discussion: Adding sea level rise to the wave run up elevation would result in increased elevation of structures in flood hazard areas on the beach. This not only addresses sea level rise, but provides a factor of safety for purposes of floodplain management. "Freeboard" is required to compensate for the many unknown factors that could contribute to flood heights or elevations greater than the height or elevation calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonable foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science. Additional elevation of structure in flood hazard areas along creeks and rivers is proposed to provide an increased factor of safety for all the same reasons. The amount of freeboard to use in riverine flood hazard areas is specified in the Floodplain Management Regulations. The proposed amount is 2 feet, which represents an additional foot above the current freeboard standard. The proposed policy and ordinance amendments would increase levels of flood protection. Therefore, no impacts would occur.

8. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*	☐	☐	☐	☒

Discussion: See the discussion under I-7. The proposed project would provide for increased avoidance of flood hazards. No impact would occur.

9. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*	☐	☐	☐	☒

Discussion: The proposed project would not increase the risk of flooding and would not lead to the failure of a levee or dam. No impact would occur.

10. *Inundation by seiche, tsunami, or mudflow?*	☐	☐	☐	☒

Discussion: There are two primary types of tsunami vulnerability in Santa Cruz County.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

The greater risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher causalities than if it were a distant tsunami (County of Santa Cruz 2010).

The project would provide for increased protection from flood hazards in portions of the areas that may be subject to seiche or tsunami hazards, and would have no affect in areas outside mapped FEMA flood hazard areas. Therefore, no impact would occur.

J. LAND USE AND PLANNING

Would the project:

1.	*Physically divide an established community?*	☐	☐	☐	☒

Discussion: The proposed project does not include any element that would physically divide an established community. No impact would occur.

2.	*Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*	☐	☐	☐	☒

Discussion: The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated.

3.	*Conflict with any applicable habitat conservation plan or natural community conservation plan?*	☐	☐	☐	☒

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. See also D-1. No impact would occur.

K. MINERAL RESOURCES

Would the project:

1.	*Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2.	*Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of availability of a locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

L. NOISE

Would the project result in:

1.	*Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*	☐	☐	☐	☒

Discussion: The GP/LCP is being amended to relocate sections 6.9a, 6.9b, 6.10, and 6.11 from Chapter 6 to a stand-alone Noise Element in order to add material from the State guidelines for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies. Specifically, Tables 6-1 and 6-2 has been clarified to distinguish between standards for noise exposure at sensitive receptors and standards that limit noise generation. Table 9-2, Normalization Factors for Calculating Noise Exposure, from the State guidelines for noise elements has been added. The normalization procedure allows for more refined assessment of locally acceptable noise exposure. See Attachment 1 for a more complete description of proposed changes to noise policies.

The proposed amendments are intended to assist in meeting the current noise thresholds

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

outlined in Figure 6-1 (Land Use Compatibility for Community Noise Environments) of the existing 1994 General Plan. The proposed changes would add a new noise exposure category "Normally Unacceptable" that would reduce the range of "Conditionally Acceptable" category by 5 dB CNEL for noise sensitive land uses to encourage lower noise exposure for those uses.

Transportation-related noise is currently the primary source of noise in the County. The proposal does not include amendments to either the Land Use Element or the Circulation Element of the adopted 1994 General Plan. Therefore, no changes are being proposed to patterns of development that would alter the number of vehicle trips or circulation patterns in a manner that might lead to an increase in future noise. As a result, no noise modeling was required for the proposed amendments.

The proposed amended General Plan Noise Element goals, objective, and policies would not result in any significant impacts to the noise environment.

2.	*Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*	☐	☐	☐	☒

Discussion: The project proposes to replace Policy 6.9.6 "Vibrations from Rail" with Policy 9.2.8 "Groundbourne Vibration." The proposed policy would limit the extent of exposure that sensitive uses may have to ground borne vibration from trains, construction equipment, and other sources according to the Federal Transit Administration and Federal Railroad Administration guidelines. No impact is anticipated.

3.	*A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*	☐	☐	☐	☒

Discussion: The project consists of General Plan/LCP policy amendments and as such does not directly authorize any physical construction. See also discussion under L-1. No impact is anticipated.

4.	*A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*	☐	☐	☐	☒

Discussion: The project consists of General Plan/LCP policy amendments and as such does not directly authorize any physical construction. See also discussion under L-1. No impact is anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*	☐	☐	☒	☐

Discussion: The amendments to the Noise Element add Figure 9-1, the most recent map of noise contours around the Watsonville Airport, so that the data is available for evaluations of noise impacts. The amendments also introduce the use of the technique of normalization for establishing appropriate noise level limits for new noise-sensitive development in the vicinity of an airport or other substantial noise source. The normalization procedure takes into account four categories of correction or normalization factors associated with the noise source and the characteristics of the affected community: (1) Seasonal variations in nose source levels; (2) Existing outdoor ambient noise level in the community (i.e., relative intrusiveness of the source); (3) Previous exposure to, and attitudes toward, the noise; and (4) Whether the noise includes pure tones or impulse characteristics. When it is possible to evaluate some or all of these factors, the measured or computed noise exposure values may be adjusted by means of the correction factors. This process would enable the noise analysis to more accurately assess the acceptable noise exposure. Overall, the amendments strengthen noise evaluations and the clarifications strengthen implementation of the standards that protect the community from excessive noise.

6. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*	☐	☐	☒	☐

Discussion: See discussion under L-5. No impact is anticipated.

M. POPULATION AND HOUSING

Would the project:

1. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*	☐	☐	☐	☒

Discussion: The proposed project would not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in the area. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace any existing housing. No impact would occur.

3. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace any people. No impact would occur.

N. PUBLIC SERVICES

Would the project:

1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*				
a. *Fire protection?*	☐	☐	☐	☒
b. *Police protection?*	☐	☐	☐	☒
c. *Schools?*	☐	☐	☐	☒
d. *Parks?*	☐	☐	☐	☒
e. *Other public facilities; including the maintenance of roads?*	☐	☐	☐	☒

Discussion (a through e): The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The project would not result in the need for any new or physically altered governmental facilities No impacts would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

O. RECREATION

Would the project:

1. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities. No impacts would occur.

2. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*	☐	☐	☐	☒

Discussion: The proposed project does not propose the expansion or construction of additional recreational facilities. No impact would occur.

P. TRANSPORTATION/TRAFFIC

Would the project:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. There would be no impact because no additional traffic would be generated.

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

standards established by the county congestion management agency for designated roads or highways?

Discussion: The proposed project would not conflict with either the goals and/or policies of the RTP or with monitoring the delivery of state and federally-funded projects outlined in the RTIP. No impact would occur.

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*	☐	☐	☐	☒

Discussion: No change in air traffic patterns would result from project implementation. Therefore, no impact is anticipated.

4. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*	☐	☐	☐	☒

Discussion: The project does not affect road design or transportation. No increase in hazards would occur from project design or from incompatible uses. No impact would occur from project implementation.

5. *Result in inadequate emergency access?*	☐	☐	☐	☒

Discussion: The project would not result in inadequate emergency access.

6. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*	☐	☐	☐	☒

Discussion: The proposed project would no conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities No impact would occur.

Q. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The proposed project would not generate wastewater. Therefore, wastewater treatment requirements would not be exceeded. No impacts would occur.

2.	*Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed project would not require water or wastewater treatment. No impacts are expected to occur.

3.	*Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed project would not generate increased runoff; therefore, it would not result in the need for new or expanded drainage facilities. No impact would occur.

4.	*Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*	☐	☐	☐	☒

Discussion: The proposed project would have no impact on water supplies.

5.	*Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*	☐	☐	☐	☒

Discussion: The proposed project would have no impact on wastewater treatment capacity.

6.	*Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project would have no impact on landfill capacity.

7.	*Comply with federal, state, and local statutes and regulations related to solid waste?*	☐	☐	☐	☒

Discussion: The project would have no impact related to solid waste.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

R. MANDATORY FINDINGS OF SIGNIFICANCE

1.	*Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*	☐	☐	☐	☒

Discussion: The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III (A through Q) of this Initial Study. As a result of this evaluation, there is no evidence that significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2.	*Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*	☐	☐	☐	☒

Discussion: In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there is no evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through Q). As a result of this evaluation, there is no evidence that there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Coastal Commission, 2013

Draft Sea-Level Rise Policy Guidance, Public Review Draft, October 14, 2013

California Coastal Commission, 2013

Coastal Commission staff report on City of Laguna Beach Local Coastal Plan Amendment, May 2012.

California Coastal Commission, 2014

Coastal Commission staff report on City of Solana Beach Local Coastal Plan Amendment, January 2014.

California Coastal Commission, 2014

Coastal Commission staff report on County of Marin Local Coastal Plan Amendment, May 2014.

California Department of Conservation. 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

County of Santa Cruz, 2013

County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2010

County of Santa Cruz Local Hazard Mitigation Plan 2010-2015. Prepared by the County of Santa Cruz Office of Emergency Services.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

MBUAPCD, 2008

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

MBUAPCD, 2013b

Triennial Plan Revision 2009-2011. Monterey Bay Air Pollution Control District. Adopted April 17, 2013.

National Research Council of the National Academies, 2012

Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. National Academies Press, Washington, D.C. pp.250. ISBN 978-309-24494-3.

United States Geological Survey, 2012

Flint, L.E., and Flint, A.L., 2012, Simulation of climate change in San Francisco Bay Basins, California: Case studies in the Russian River Valley and Santa Cruz Mountains: U.S. Geological Survey Scientific Investigations Report 2012–5132, 55 p.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

TODD SEXAUER, Environmental Coordinator

Date

adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

TODD SEXAUER, Environmental Coordinator

12/19/14
Date


PROJECT LOCATION MAP
SANTA CRUZ COUNTY, CALIFORNIA
Legend
SKYLINE
SAN LORENZO VALLEY
NORTH COAST
SUMMIT
CARBONERA
EUREKA CANYON
APTOS HILLS
BONNY DOON
SOQUEL
APTOS
LIVE OAK
PAJARO VALLEY
LA SELVA
SALSIPUEDES
SAN ANDREAS
SANTA CLARA COUNTY
SAN MATEO COUNTY
MONTEREY COUNTY
Figure 1

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres): Countywide
Existing Land Use: N/A
Vegetation: N/A
Slope in area affected by project: ☐ 0 - 30% ☐ 31 – 100% ☒ N/A
Nearby Watercourse: Countywide
Distance To: N/A

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	Countywide	Fault Zone:	Countywide
Groundwater Recharge:	Countywide	Scenic Corridor:	Countywide
Timber or Mineral:	Countywide	Historic:	Countywide
Agricultural Resource:	Countywide	Archaeology:	Countywide
Biologically Sensitive Habitat:	Countywide	Noise Constraint:	Countywide
Fire Hazard:	Countywide	Electric Power Lines:	Countywide
Floodplain:	Countywide	Solar Access:	Countywide
Erosion:	Countywide	Solar Orientation:	Countywide
Landslide:	Countywide	Hazardous Materials:	Countywide
Liquefaction:	Countywide	Other:	Countywide

SERVICES:

Fire Protection:	Countywide	Drainage District:	Countywide
School District:	Countywide	Project Access:	Countywide
Sewage Disposal:	Countywide	Water Supply:	Countywide

PLANNING POLICIES:

Zone District:	Countywide	Special Designation:	Countywide
General Plan:	Countywide		
Urban Services Line:	☒ Inside	☒ Outside	
Coastal Zone:	☒ Inside	☒ Outside	

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Santa Cruz County is situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and

require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

The California Coastal Zone affects nearly one third of the land in the urbanized area of the unincorporated County with special restrictions, regulations, and processing procedures required for development within that area. Steep hillsides require extensive review and engineering to ensure that slopes remain stable, buildings are safe, and water quality is not impacted by increased erosion. The farmland in Santa Cruz County is among the best in the world, and the agriculture industry is a primary economic generator for the County. Preserving this industry in the face of population growth requires that soils best suited to commercial agriculture remain active in crop production rather than converting to other land uses.

PROJECT BACKGROUND:

This project to amend portions of the General Plan/Local Coastal Program (GP/LCP) and the County Code that address public safety was initiated to increase the resilience of the community relative to the expected impacts of climate change in Santa Cruz County, and to implement several Priority Actions in the County's Local Hazard Mitigation Plan (LHMP).

Regarding climate change, in January, 2013, the County adopted a Climate Action Strategy to address the two pillars of community response to climate change: reduction of greenhouse gas emissions and adaptation to the environmental changes that are expected to occur. Coastal communities are particularly vulnerable to impacts from sea level rise and hazards that result from increased extreme weather. These include coastal bluff erosion, increased coastal and riverine flooding, and increased fire hazard, as well as loss of biodiversity and environmental resources. Many of the General Plan policies and code amendments in this package are being proposed in order to implement the adaptation portion of the Climate Action Strategy, minimize impacts from climate change, and increase resilience in unincorporated Santa Cruz County, such as:

- New policies in the General Plan incorporate using the best available science on expected impacts from climate change to evaluate proposed development projects, and recognize that scientific information will improve over time and that the information used to evaluate development projects will be updated periodically;
- New policies and regulations incorporate the concept of required "freeboard" in flood elevations, meaning that an extra amount of elevation is added to that required to meet FEMA regulations in order to accommodate sea level rise and other impacts of climate change, and to further reduce the potential for damage;
- Revised coastal bluff and beach policies that reflect a practical, reality based approach to adapting to sea level rise and increased coastal risks. An inventory of vulnerable public infrastructure showed that critical transportation and utility infrastructure is in close

proximity to coastal bluffs and beaches. A common condition in the urbanized coastal areas of the county is one row of homes along the top of the coastal bluff or beach, with a public street on the inland side of the homes. In these cases any coastal protection structures associated with the homes, and in fact the homes themselves, are protecting the street and the critical utilities under the street from damage from sea level rise and coastal erosion. In many cases it is therefore in the public interest to allow these homes to continue to exist and be protected from coastal hazards as sea level rises. An inventory of coastal development shows that along the top of the coastal bluff from Twin Lakes to Seascape is a nearly unbroken series of homes, most of which have existing coastal protection structures associated with them. This is not the case in the rural areas, however, and new policies and regulations reflect this difference by treating rural areas, where managed retreat is an option, differently from areas in the urban and rural services lines.

- Regulations that require property owners in hazard prone areas to acknowledge and accept future losses.

Regarding hazard mitigation, in 2011 the Planning Department applied for and received funds for planning activities from the Department of Housing and Community Development Community Development Block Grant (CDBG) 2008 Disaster Recovery Initiative (DRI) Program. The grant was for implementation of Priority Actions in the County's Local Hazard Mitigation Plan: Amend Section 6.2 Coastal Bluffs and Beaches, Section 6.3 Erosion Control, Section 6.4 Flood Hazards, and Section 6.5 Fire Hazards of the General Plan and Local Coastal Program Public Safety and Noise Element and; amend the flood hazard provisions and other sections of the County Geologic Hazards Ordinance, and create a new ordinance, Floodplain Management Regulations, containing the flood hazard provisions, and amend the Erosion Control Ordinance.

DETAILED PROJECT DESCRIPTION:

The proposed project would amend the General Plan and Local Coastal Program (GP/LCP) Public Safety and Noise Elements to include new policies and goals to address climate change mitigation and adaptation strategies, sea level rise and tsunamis. The following sections are proposed to be amended: Section 6.2 Coastal Bluffs and Beaches, Section 6.3 Erosion, Section 6.4 Flood Hazards, Section 6.5 Fire Hazards. Sections 6.9a Noise Environment, 6.9b Noise Element, 6.10 Ground Transportation, and 6.11 Air Transportation would be removed from Chapter 6 and included in a new Chapter 9 as an amended, stand-alone Noise Element.

Summary of Proposed Amendments to GP/LCP Section 6.2, Coastal Bluffs and Beaches

The proposed policy amendments address development on coastal bluffs and beaches, including coastal protection structures and the structures they protect. To respond to future sea level rise proposed policy amendments would require additional elevation of structures on the beach, modify the policies related to coastal bluff setbacks, and require additional

review of coastal protection structures. Under existing policies coastal bluff setback requirements apply uniformly throughout the County. The proposed policy amendments incorporate a strategy for adaptation to future sea level rise that treats urban and rural areas of the County differently, and requires reevaluation of protection structures when the structure being protected is significantly remodeled or rebuilt.

- Add a policy acknowledging sea level rise and incorporate sea level rise in other policies, and in the geologic hazard ordinance; for coastal bluff setback analysis and elevation of structures in the coastal flood hazard area use 3 feet of future sea level rise in the analyses.
- Add a policy addressing uncertainty in current sea level rise projections by allowing for modification of the amount of sea level rise to use in project analysis based on best available science
- Amend the policy on calculation of bluff setback to incorporate future sea level rise as an additional factor in the calculation
- Add a policy that allows consideration of an existing shoreline or coastal bluff protection structure in the calculation of bluff setback within urban areas, but does not allow an existing protection structure to be considered in the bluff setback calculation in rural areas.
- Add a policy that development activities trigger reevaluation of existing shoreline protection; reevaluate the impacts and benefits of any existing shoreline or bluff protection structure, and the impacts/benefits without the protection structure; mitigate adverse impacts while maintaining benefits;
- Amend the policy regarding exceptions for foundation upgrade to allow reductions to the 100 year stability coastal bluff setback for developed lots with existing protection structures if certain criteria are met;
- Amend the policy requiring a Declaration of Geologic Hazards as a condition of project approval to include an acknowledgement and assumption of risk
- Add policies addressing swimming pools and accessory structures
- Amend the policy on reconstruction of damage structures to require reconstructed structures to meet all LCP requirements, except in the case of non-coastal related hazards
- Add an exception for publicly owned facilities on the coastal bluff

See Attachment 1 for a more complete description of proposed changes to coastal bluffs and beaches policies.

Adding future sea level rise to the calculation of the bluff setback would result in increased setbacks for structures on coastal bluffs, and adding sea level rise to the wave run up elevation would result in increased elevation of buildings on the beach.

Current projections of sea level rise are bracketed by a low and a high range which reflects uncertainty about what will actually happen in the future. The General Plan amendment addressing this (6.2.11) specifies that a reasonably foreseeable amount of sea level rise that is within the accepted range be used in project analysis. The amount of sea level rise to use in project analysis would be based on best available science, as periodically updated by the Planning Department. The amount of sea level rise that is currently proposed to be used is three feet, The source for this projection is the National Research Council 2012 report, "*Sea-Level Rise for the Coastal of California, Oregon, and Washington: Past, Present, and Future*". The projection is the mean amount of sea level rise within a projected range of about 17 inches to 5.5 feet by the year 2100. Because of reasonable certainty that sea level will rise to some extent in the future, new policy 6.2.11 would allow for adjustment of the amount of sea level rise to use in project analysis based on future best available science. It should be noted that the highest projected range of sea level rise by mid-century is still less than three feet, and after mid-century the difference between the low and high ranges begins to widen dramatically, indicating increasing uncertainty about future conditions.

Future sea level rise will put additional stress on existing coastal and bluff protection structures and increase rates of coastal bluff erosion. Proposed policy amendments address this issue by establishing a connection between the protection structure and the development it is protecting. Development activities on a lot, as defined in the Geologic Hazards Ordinance, would trigger reevaluation of the protection structure. This is not currently the case. The evaluation would consider the impacts of the protection structure on coastal resources, such as restricted access or visual degradation, and also the benefits provided by the protection structure, such as protection of public access and recreation, and protection of the public roads and infrastructure immediately inland. The proposed policy amendment would facilitate mitigation of the existing impacts on coastal resources, which is not currently possible, and would prevent the scenario of deteriorating walls and other structures becoming eyesores over time if they are not able to be maintained and upgraded.

Development on coastal bluffs in the urban areas of the County occurs in a variety of configurations, with varying bluff setbacks and structural coastal bluff protection measures. These urbanized areas contain public roads and infrastructure that serve existing development and provide access to the coast. In these areas of the County, within the Urban and Rural Services Line, adaptation to sea level rise must consider the impact of coastal development and coastal protection on coastal resources, and, in some cases, the ongoing benefits of continuing to protect existing development, public access, roads, and infrastructure. The current policy allowing exceptions to both the 25-foot minimum and 100-year coastal bluff setback for foundation replacements and upgrades would be replaced

with a policy allowing a limited setback reduction for projects that meet the definition of development/development activities (Foundation replacement or upgrade is no longer part of the definition of development/development activities, therefore, the exception was no longer necessary for these projects). Amended policy 6.2.15 reflects this adaptation response by acknowledging there are situations where allowing a reduction to the required 100-year bluff is appropriate. Specifically, the reduction would apply to urban lots with existing coastal protection structures and no alternative location to relocate or rebuild the existing house. On these lots allowing significant remodel or rebuild of the house would trigger reevaluate the existing protection structure and create the opportunity to mitigate any identified impacts on coastal resources caused by the protection structure, and maintain the benefits of continuing to protect public access, roads, and infrastructure. The amended policy would maintain the 25-foot minimum setback, but would allow the continuation of existing encroachment into the 100-year setback if the structure could not be relocated to meet the 100-year setback. Development on any lot would continue to be constrained by existing site development standards such as setbacks from property lines, height, and neighborhood compatibility standards. It should be noted that the amended policy would not allow any existing undeveloped lot to become developable; it would only apply to development activities, as defined, on existing developed lots.

Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.2.20 would modify the Declaration of Geologic Hazards that is currently required to be recorded on property deeds to include additional language that makes it clear that property owners acknowledge and assume risks posed by geologic hazards, including sea level rise.

If a structure on a coastal bluff is damaged as a result of coastal hazards, current policy (6.2.20) allows it to be reconstructed in-kind, even if the coastal bluff setback is less than 25 feet, if l00-year stability can be provided, possibly with a coastal bluff protection structure. This policy would be modified to require that reconstruction that meets the definition of reconstruction in the Geologic Hazards Ordinance, meet all GP/LCP policies. Specifically, the repaired or reconstructed structure would have to meet the 25-foot minimum setback; however, the project may qualify for a reduction of the 100-year setback as provided by policy 6.2.15. Such a project would also include a reevaluation of any existing coastal protection structure. This proposed policy would likely result in decreased levels of development, and increased coastal bluff setbacks on lots that sustain damage from coastal hazards. Structures that are damaged by non-coastal related hazards, such as fire, could continue to be rebuilt in-kind, according to current policies.

Summary of Proposed Amendments to GP/LCP Section 6.3, Erosion Control

The Erosion Control policy amendment addresses the amount of land clearing that can be done with a permit. The proposed amendment would reduce the threshold for when a land

clearing permit is required from one acre to one quarter acre. Land clearing in the County creates potential for erosion and sediment movement, which can create safety issues on roads, clog drainage infrastructure, and degrade natural water courses. There has been an increase in land clearing activities in the rural areas of the County. The purpose of this amendment is to help reduce erosion by providing for greater oversight of land clearing projects by the County.

See Attachment 1 for a more complete description of proposed changes to erosion policies.

Summary of Proposed Amendments to GP/LCP Section 6.4, Flood Hazards

The proposed policy amendments acknowledge and incorporate sea level rise in flood hazard policies, and make other clarifications to flood hazard policies:

- Modify terminology to use the term "flood hazard area" consistently when referring to riverine or coastal flood hazard areas
- Require additional elevation, or freeboard, above the minimum required flood elevation in coastal hazard areas and other flood hazard areas
- Amend policy on fill placement in the flood hazard area to require no net increase in fill, and no cumulative adverse impact from the fill on or off site

See Attachment 1 for a more complete description of proposed changes to flood hazard policies.

Adding sea level rise to the wave run up elevation would result in increased elevation of structures in flood hazard areas on the beach. This not only addresses sea level rise, but provides a factor of safety for purposes of floodplain management.

"Freeboard" is required to compensate for the many unknown factors that could contribute to flood elevations greater than the elevation calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonably foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science.

Additional elevation of structure in flood hazard areas along creeks and rivers is proposed to provide an increased factor of safety for the same reasons. The current amount of freeboard to use in riverine flood hazard areas is 1 foot, as specified in the Floodplain Management Regulations. The proposed amount is 2 feet, which would increase levels of flood protection.

Summary of Proposed Amendments to GP/LCP Section 6.5, Fire Hazards

- Background information is added to the text. Historical fire information and jurisdictional, regulatory, and planning information related to fire hazards is included.
- Terminology is modified to use the term "fire code official"
- New policies are added regarding defensible space to reflect state laws and guidelines.
- Text is added to the policy on Access Standards 6.5.4 consistent with the State Fire Code and the County Fire Code.
- Text derived from the County Fire Code is added to the policy on Conditions for Project Approval 6.5.6, including the requirement for 100 feet of defensible space in State Responsibility Areas (SRAs) and Very High Fire Hazard Severity Zones (FHSZ), consistent with State law.
- Text is added to the policy on land divisions 6.5.7 to require new building sites to be located outside areas mapped as Very High FHSZs and outside areas mapped on General Plan Resources and Constraints maps as Critical Fire Hazard Areas. The policy is also revised to clarify that Land Clearing Approval may be required pursuant to the Erosion Control Ordinance (SCCC Chapter 16.22).

See Attachment 1 for a more complete description of proposed changes to fire hazard policies.

Fire Hazard policies would be amended for consistency with state law. This involves a number of edits to the standards for access and development. The amended policies would incorporate the state standard for defensible space of 100 feet around existing development. Defensible space refers to the area around a house where the vegetation has been modified to reduce the wildfire threat and to provide space within which firefighters can effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. The existing standard in the General Plan is 30 feet. The primary focus of the first 30 feet is more intense fuel reduction, with less intense fuel reduction in the zone between 30 and 100 feet. These areas are described in the publication Living With Fire in Santa Cruz County produced through a joint effort between the Resource Conservation District of Santa Cruz County and California Department of Forestry and Fire Protection Santa Mateo-Santa Cruz Unit.

State law requires persons in control of property in forested or brush covered areas to create and maintain defensible space. However, fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state and local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, water quality, air quality, and cultural/archeological resources, and to obtain all required permits.

Summary of Proposed Amendments to GP/LCP Sections 6.9 – 6.11, Noise

The GP/LCP is being amended to relocate sections 6.9a, 6.9b, 6.10, and 6.11 from Chapter 6 to a stand-alone Chapter 9, Noise Element, in order to add material from the State guidelines

for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies. Specifically, Tables 6-1 and 6-2 has been clarified to distinguish between standards for noise exposure at sensitive receptors and standards that limit noise generation. Table 9-2, Normalization Factors for Calculating Noise Exposure, from the State guidelines has been added. The normalization procedure allows for more refined assessment of locally acceptable noise exposure.

See Attachment 1 for a more complete description of proposed changes to noise policies.

Summary of Proposed Amendments to Geologic Hazards Ordinance, Chapter 16.10 of the County Code

Proposed amendments are necessary to incorporate the proposed GP/LCP Coastal Bluffs and Beaches policy amendments into the ordinance, to separate the floodplain regulations from the ordinance and create a new ordinance containing the floodplain regulations, and to update other sections to incorporate guidelines that address hazards such as landslides, earthquakes and liquefaction. Current County flood hazard regulations within the County Geologic Hazards Ordinance (Section 16.10) were adopted in 1982. Since that time there have been numerous changes to flood requirements in the California Building Code and Residential Code and through FEMA technical bulletins and updates. The County proposes to create a separate Flood Hazard Ordinance that will update, clarify and consolidate flood requirements into one stand-alone ordinance. The last amendment of the Geologic Hazards Ordinance occurred in 1999.

See Attachments 6 and 7 for a more complete description of proposed changes to the Geologic Hazards Ordinance and the new Floodplain Management Regulations, respectively.

Summary of Proposed Amendments to Erosion Control Ordinance, Chapter 16.22 of the County Code

In the current Erosion Control Ordinance, the thresholds for when a land clearing permit is required are: any amount of clearing in sensitive habitat, one-quarter acre in the Coastal Zone, and one acre or more of land clearing in all other areas of the County. The proposed amendment would reduce the threshold for when a land clearing permit is required from one acre to one-quarter acre in all areas of County. The threshold in sensitive habitat would not change.

See Attachments 8 for a more complete description of proposed changes to the Erosion Control Ordinance.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Would the project:

1.	*Have a substantial adverse effect on a scenic vista?*	☐	☐	☒	☐

***Discussion*:**

The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. Many of the amendments codify regulations that are state law or are already within the County of Santa Cruz fire code. The potential for each area of policy or ordinance amendment to affect visual resources is discussed below.

Coastal Bluffs: Development that occurs on coastal bluffs, including coastal protection structures, has the potential to degrade visual resources along the coast. However, the proposed policy amendments will not increase this existing potential in that no currently unbuildable property will become buildable as a result of the amendments and the policy and ordinance amendments will, in most cases, result in greater setbacks between structures and coastal bluffs than existing policies. This minimizes visibility of buildings from the beach. Policy 6.2.15 gives criteria that, when met, would allow an existing structure that encroaches into the 100 year stability setback to be repaired, improved or replaced. This would only be allowed when there is no alternative location and there is a public benefit. In this case the policy does not increase the coastal bluff setback, but it also does not increase the existing encroachment. The amendments require existing coastal protection structures to be evaluated for negative impacts to coastal resources and public access, and this creates an opportunity for mitigation of existing visual impacts that would not be addressed without the amendments. For example, if older, existing retaining walls must be upgraded they can also be treated using new, more aesthetic techniques that allow walls to be colored and textured to blend with the visual environment. Screening vegetation can also be required.

Beaches and flood elevation: The proposed policy and code amendments require additional elevation of structures on the beach to accommodate future sea level rise. Existing site standards, including height limits, for individual lots would not change. Individual projects must comply with the site standards, or apply for an exception or variance to those standards if the project would exceed the height limit as a result of required flood elevation. Such projects would be subject to discretionary review and a coastal permit, which would require conformance with all regulations protecting scenic resources. This existing process

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

will not change as a result of these amendments.

Fire Hazard Policy: The proposed fire hazard policy amendments and change to the land clearing provision in the Erosion Control Ordinance do not change any existing policies or standards that protect public views. Defensible space standards involve strategic vegetation modification around structures to reduce the spread of fire and provide firefighter access around structures, not clearance of all vegetation or clearance down to bare soil. Therefore, a less than significant impact is anticipated. The change to the erosion control ordinance reduces the amount of land clearing that triggers a requirement for a discretionary permit, and therefore makes more land clearing subject to conditions of approval that can mitigate any impacts. Lastly, the proposed amendments to the GP/LCP implement regulations that are already in place in the County of Santa Cruz fire code.

2.	*Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*	☐	☐	☒	☐

Discussion: The project applies countywide which includes County designated scenic roads, public viewshed areas, scenic corridors, designated scenic resource area, and state scenic highway. However, as discussed in response A1, a less than significant impact is anticipated.

3.	*Substantially degrade the existing visual character or quality of the site and its surroundings?*	☐	☐	☒	☐

Discussion: The project applies countywide which includes County designated scenic roads, public viewshed areas, scenic corridors, designated scenic resource area, and state scenic highway. However, as discussed in response A1, a less than significant impact is anticipated.

4.	*Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*	☐	☐	☒	☐

Discussion: The project consists of GP/LCP policy and ordinance amendments, none of which would create a new source of substantial light or glare. Any light and glare issues associated with a particular project would be considered during the normal permit process for that project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. They will not impact Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, or Farmland of Local Importance. No land will be converted from one use to another as a result of the project; therefore, no impact on farmland would occur from project implementation.

2. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. There is no anticipated impact on agricultural zones or uses, or any land under a Williamson Act Contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract.

3. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

51104(g))?

Discussion: The project would not affect Timber Resources or access to harvest the resource in the future. Timber resources may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations.

4.	*Result in the loss of forest land or conversion of forest land to non-forest use?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of forest land or conversion of forest land to non-forest land. Creation of defensible space around structures is consistent with State law, administered by CAL FIRE, and is not considered the loss of forest land. No impact is anticipated.

5.	*Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. The project would not impact any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project would not result in loss of forest land. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has been relied upon to make the following determinations. Would the project:

1.	*Conflict with or obstruct implementation of the applicable air quality plan?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction and would not create any new sources of air emissions. The project would not conflict with or obstruct any long-range air quality plans of the Monterey Bay Unified Air Pollution

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Control District (MBUAPCD).

2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction and would not create any new sources of air emissions. The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments that would not create any new sources of air emissions. The project would not result in a cumulatively considerable net increase of any criteria pollutant.

4. *Expose sensitive receptors to substantial pollutant concentrations?*	☐	☐	☐	☒

Discussion: The proposed project does not involve construction, and would not generate pollutants. There would be no impact to sensitive receptors.

5. *Create objectionable odors affecting a substantial number of people?*	☐	☐	☐	☒

Discussion: The project would not create any objectionable odors. There would be no odor impacts as a result of the project.

D. BIOLOGICAL RESOURCES

Would the project:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

and Wildlife, or U.S. Fish and Wildlife Service?

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments The Fire Hazard policies would be amended for consistency with state law. This involves a number of changes to the standards for access and development. The amended policies would incorporate the relatively new state standard for defensible space around existing development. The existing standard in the General Plan is 30 feet, and would be extended to 100 feet, with the primary focus on the first 30 feet of more intense fuel reduction, and less intense fuel reduction between 30 and 100 feet. Defensible space is not synonymous with clearing. Defensible space refers to that area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. State law requires that persons in control of property in forested or brush covered areas create and maintain defensible space. The goal is to reduce opportunities for fire to spread through continuous canopy or ladder fuels to structures, or from structures to the forest.

State law requiring defensible space (PRC 4291) states that the amount of fuel modification necessary shall take into account the flammability of the structure. In other words, less fuel modification is necessary around buildings that are more fire resistant. The County has adopted the latest version of the California Building Code, including Chapter 7a, Wildland Urban Interface Code, which contains updated standards to increase fire resistive construction requirements for buildings. This will reduce the amount of fuel modification required.

The proposed amendments would not themselves result in physical impacts to the environment. All future projects involving fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state and local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, significant trees, water quality, air quality, and cultural/archeological resources, and obtain any and all required permits. Therefore, the proposed amendments to the fire hazard policies in the GP/LCP would have a less than significant impact on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service.

2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland,*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				

Discussion: See the discussion in D-1. Impacts to sensitive habitats would be less than significant.

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*	☐	☐	☒	☐

Discussion: See discussion in D-1. Impacts to wetlands would be less than significant.

4. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☐	☒	☐

Discussion: See discussion in D-1. The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

5. *Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?*	☐	☐	☒	☐

Discussion: The project would not conflict with any local policies or ordinances and would implement the County Fire Code. See discussions under D-1 above.

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*	☐	☐	☐	☒

Discussion: The proposed project would not conflict with the provisions of any adopted

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. In locations that are subject to the Interim Sand Hills HCP, clearing is included in the 15,000 square feet of take authorized by the HCP and mitigated for by participation in the conservation bank for this habitat.

7.	*Produce nighttime lighting that would substantially illuminate wildlife habitats?*	☐	☐	☒	☐

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. None of the proposed policy amendments would directly create a new source of substantial light or glare, and all light and glare issues would be considered during the normal permit process for an individual project. The proposed coastal bluffs and beaches policy amendments include additional language regarding evaluation of public view during project review. For the most part, the policy and ordinance amendments would result in greater setbacks of structures from coastal bluffs. There may be a small number of projects with a reduced coastal bluff setback, potentially create light or glare issues, but this is expected to create a less than significant impact on visual resources.

E. CULTURAL RESOURCES

Would the project:

1.	*Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. Many of the amendments codify regulations that are state law or are already within the County of Santa Cruz fire code. The County contains a number of historic resources; however, no impacts to historical resources would occur from the proposed project.

2.	*Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: The project consists of countywide GP/LCP policy and ordinance amendments. The County contains a number of archaeological resources. However, no impacts to archaeological resources would occur from the proposed project.

3.	*Disturb any human remains, including those interred outside of formal*	☐	☐	☐	☒

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

cemeteries?

Discussion: The project would not result in disturbance of human remains. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, for individual projects subject to these amended policies and ordinances, if at any time during site preparation, excavation, or other ground disturbance associated with the project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4.	*Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction. The County contains a number of paleontological resources, particularly along the coast. However, no impacts to paleontological resources would occur from the proposed project. No impacts are anticipated.

F. GEOLOGY AND SOILS

Would the project:

1.	*Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*				
	A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	B. Strong seismic ground shaking?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
C. *Seismic-related ground failure, including liquefaction?*	☐	☐	☐	☒
D. *Landslides?*	☐	☐	☐	☒

***Discussion (A through D)*:**

In addition to incorporating the GP/LCP Coastal Bluffs and Beaches policy amendments into the ordinance, and creation of a separate ordinance section for floodplain issues, a general review and amendment of other sections of the Geologic Hazards Ordinance, where necessary, is included as part of this project. The last amendment of the Geologic Hazards Ordinance occurred in 1999, and since that time, the State has updated its guidelines with respect to hazards such as landslides, earthquakes and liquefaction. Staff has reviewed State guidelines and amended the Geologic Hazards Ordinance as appropriate.

Amending the ordinance in this way lessens the exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, ground failure, or landsliding. None of the GP/LCP policies or County Code amendments would allow development where it would otherwise not be allowed. Therefore, no impact would occur.

2. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*	☐	☐	☐	☒

***Discussion*:** See discussion under F-1. Amending the ordinance as discussed would not result in structures located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur.

3. *Develop land with a slope exceeding 30%?*	☐	☐	☐	☒

***Discussion*:** The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The project would not encourage or result in development on slopes exceeding 30%. Specifically, the project would not encourage or result in any new shoreline or coastal bluff protection structures. Rather the project provides for reevaluation of existing protection

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

structures. The project would result in increased setbacks from coastal bluffs in most cases and does not decrease the setback in any case. The project would not result in any increase in development on slopes that exceed 30%. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒

Discussion: The proposed project would not result in substantial soil erosion or the loss of topsoil. No impact would occur.

5. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☐	☒

Discussion: The proposed project would not result in any increase in development on expansive soils. No impact would occur.

6. Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion: The project would have no direct or indirect impact involving soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water. No impact would occur.

7. Result in coastal cliff erosion?	☐	☐	☒	☐

Discussion:

The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The changes provide for a more conservative analysis of coastal bluff setback. Adding future sea level rise to the calculation of the bluff setback would result in increased setbacks for structures on coastal bluffs. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonably foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science. The source for this projection is the National Research Council 2012 report, "*Sea-Level Rise for the Coastal of California, Oregon, and Washington: Past, Present, and Future*". The projection is the mean amount of sea level rise within a projected range of

about 17 inches to 5.5 feet by the year 2100. It should be noted that the highest projected range of sea level rise by mid-century is still less than three feet, and after mid-century the difference between the low and high ranges begins to widen dramatically, indicating great uncertainty about future conditions. Based on better science in the future, the prescribed amount of sea level rise to use in project design can be updated.

Future sea level rise will put additional stress on existing coastal and bluff protection structures and increase rates of coastal bluff erosion. Proposed policy amendments address this issue by establishing a connection between the protection structure and the development it is protecting. Development activities on a lot, as defined in the Geologic Hazards Ordinance, would trigger reevaluation of the protection structure. This is not currently the case. The evaluation would consider the impacts of the protection structure on coastal resources, such as restricted access or visual degradation, and also the benefits provided by the protection structure, such as protection of public access and recreation, and protection of public roads and infrastructure immediately inland. The proposed policy amendment would facilitate mitigation of impacts on coastal resources, which is not currently possible, and would help prevent the scenario of deteriorating walls and other structures becoming eyesores over time if they are not able to be maintained and upgraded.

Development on coastal bluffs in the urban areas of the County occurs in a variety of configurations, with varying bluff setbacks and structural coastal bluff protection measures. These urbanized areas contain public roads and infrastructure that serve existing development and provides access to the coast. In these areas of the County, within the Urban and Rural Services Line, adaptation to sea level rise must consider the impact of coastal development and coastal protection on coastal resources, and, in some cases, the ongoing benefits of continuing to protect existing development, public access, roads, and infrastructure. The current policy allowing reductions to both the 25-foot minimum and 100-year coastal bluff setback for foundation replacements and upgrades would be replaced with a policy allowing a limited setback reduction for projects that meet the definition of development/development activities (Foundation replacement or upgrade is no longer part of the definition of development/development activities, therefore, the exception was no longer necessary for these projects). Amended policy 6.2.15 reflects this adaptation response by acknowledging there are situations where allowing a reduction to the required 100-year bluff is appropriate. Specifically, the setback reduction would apply to urban lots with existing coastal protection structures and no alternative location to relocate or rebuild the existing house. On these lots the setback reduction allowing significant remodel or rebuild of the house would trigger reevaluate the existing protection structure and create the opportunity to mitigate any identified impacts on coastal resource caused by the protection structure, and maintain the benefits of continuing to protect public access, roads, and

infrastructure. The amended policy would maintain the 25-foot minimum setback, but would allow the continuation of existing encroachment into the 100-year setback if the structure could not be relocated to meet the 100-year setback. Development on any lot would continue to be constrained by existing site development standards such as setbacks from property lines, height, and neighborhood compatibility determinations. It should be noted that the amended policy would not allow any existing undeveloped lot to become developable; it would only apply to development activities, as defined, on existing developed lots. The analysis of such a project would consider the impacts on coastal resources, mitigation measures to eliminate or reduce those impacts, and benefits to public access, roads, and infrastructure.

Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.2.20 would modify the existing Declaration of Geologic Hazards document recorded on property deeds to include additional language address acknowledgement and assumption of risk posed by geologic hazards, including sea level rise.

Current policy allows in-kind reconstruction of a structure on a coastal bluff that is damaged as a result of coastal hazards, regardless of the existing setback, when l00-year stability can be demonstrated, possibly with a coastal bluff protection structure. This policy would be modified to require that any reconstruction meet all GP/LCP policies. Specifically, the repaired or reconstructed structure would have to meet the 25-foot minimum setback; however, the project may qualify for a reduction of the 100-year setback as described above. Such a project would also include a reevaluation of an existing coastal protection structure. This proposed policy would likely result in decreased levels of development, and increased coastal bluff setbacks on coastal bluff lots that sustain damage from coastal hazards. Structures that are significantly damaged by non-coastal related hazards, such as fire, could continue to be rebuilt in-kind.

In summary, the proposed policy amendments would under most circumstances become stricter, and under other circumstances become more flexible. Basing the amendments on different circumstances provides for both setback increases and reductions where it is appropriate while providing for improved long term planning for sea level rise in Santa Cruz County. The proposed policy amendments would increase coastal bluff setbacks because sea level rise would be considered in project analysis. Under the proposed policy amendments the provision allowing structures on bluffs that are severely damaged by coastal hazards to rebuild if the hazard could be mitigated to provide stability over a 100-year period would be eliminated. The proposed policy amendments would facilitate mitigation of impacts on coastal resources from existing development and coastal protection

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

structures by creating a link between the protection structure and the structure being protected. In the urbanized areas of the County the proposed policy amendments would allow for flexibility in meeting the bluff setback under certain circumstances. No increase in the hazard from cliff erosion would result from these amended policies. An overall reduction of hazards from cliff erosion is anticipated as a result of these amended policies.

G. GREENHOUSE GAS EMISSIONS

Would the project:

1.	*Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☐	☐	☐	☒

Discussion: The proposed project would not directly or indirectly generate greenhouse gas emissions. No impact would occur.

2.	*Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*	☐	☐	☒	☐

Discussion: The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impact would occur.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1.	*Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?*	☐	☐	☐	☒

Discussion: The proposed project would not create a significant hazard to the public or the environment. No impacts would occur.

2.	*Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*	☐	☐	☐	☒

Discussion: The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*	☐	☐	☐	☒

Discussion: The proposed project would not result in hazardous emissions or the handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school No impacts would occur.

4. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*	☐	☐	☐	☒

Discussion: The proposed project is not site specific; therefore, no impact would occur.

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not site specific and would not result in a safety hazard for people residing or working near an airport. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not located in the vicinity of a private airstrip. No impact is anticipated.

7. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such does not directly authorize any physical construction.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

The proposed project implements the County of Santa Cruz Local Hazard Mitigation Plan 2010-2015(County of Santa Cruz, 2010) and does not conflict with that Plan. Therefore, no adverse impacts to an adopted emergency response plan or evacuation Plan would occur from project implementation.

8.	*Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*	☐	☐	☐	☒

Discussion: The Fire Hazard policies would be amended for consistency with state law and would implement the County Fire Code. This involves incorporating current state standards for access and development. The amended policies would incorporate the relatively new state standard for defensible space around existing development. The existing standard in the General Plan is 30 feet, and this is now extended out to 100 feet, with the primary focus on the first 30 feet of more intense fuel reduction, and less intense fuel reduction between 30 and 100 feet. Defensible space refers to that area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend a home. It also serves to reduce the threat of a structure fire spreading to the wildland. State law requires that persons in control of property in forested or brush covered areas create and maintain defensible space. The amended policies would provide for reduced risk from wildland fire. No impact would occur.

I. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1.	*Violate any water quality standards or waste discharge requirements?*	☐	☐	☐	☒

Discussion: The project would have no affect on water quality standards or waste discharge requirements. No impacts are anticipated.

2.	*Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
uses or planned uses for which permits have been granted)?				

Discussion: The project would have no affect on groundwater supplies or groundwater recharge. No impacts are anticipated.

3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*	☐	☐	☐	☒

Discussion: The project would not affect existing drainage patterns. No impacts are anticipated.

4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site?*	☐	☐	☐	☒

Discussion: The project would not affect existing drainage patterns. No impacts are anticipated.

5. *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?*	☐	☐	☐	☒

Discussion: The project would not affect runoff water. No impacts are anticipated.

6. *Otherwise substantially degrade water quality?*	☐	☐	☒	☐

Discussion: The project would not affect water quality standards or waste discharge requirements, groundwater supplies or groundwater recharge, existing drainage patterns, or runoff water. No impacts are anticipated.

7. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Insurance Rate Map or other flood hazard delineation map?

Discussion: Adding sea level rise to the wave run up elevation would result in increased elevation of structures in flood hazard areas on the beach. This not only addresses sea level rise, but provides a factor of safety for purposes of floodplain management. "Freeboard" is required to compensate for the many unknown factors that could contribute to flood heights or elevations greater than the height or elevation calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Projections of future sea level rise are bracketed by a low and a high range which represents uncertainty about what will actually happen in the future. The General Plan amendment provides that a reasonable foreseeable amount of sea level rise within the accepted range would be used in project analysis. The amount of sea level rise to use in project analysis would be specified in the Geologic Hazard Ordinance. The proposed amount is three feet, which is the projected amount of sea level rise by 2100 based on the best available science. Additional elevation of structure in flood hazard areas along creeks and rivers is proposed to provide an increased factor of safety for all the same reasons. The amount of freeboard to use in riverine flood hazard areas is specified in the Floodplain Management Regulations. The proposed amount is 2 feet, which represents an additional foot above the current freeboard standard. The proposed policy and ordinance amendments would increase levels of flood protection. Therefore, no impacts would occur.

8. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*	☐	☐	☐	☒

Discussion: See the discussion under I-7. The proposed project would provide for increased avoidance of flood hazards. No impact would occur.

9. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*	☐	☐	☐	☒

Discussion: The proposed project would not increase the risk of flooding and would not lead to the failure of a levee or dam. No impact would occur.

10. *Inundation by seiche, tsunami, or mudflow?*	☐	☐	☐	☒

Discussion: There are two primary types of tsunami vulnerability in Santa Cruz County.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

The greater risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher causalities than if it were a distant tsunami (County of Santa Cruz 2010).

The project would provide for increased protection from flood hazards in portions of the areas that may be subject to seiche or tsunami hazards, and would have no affect in areas outside mapped FEMA flood hazard areas. Therefore, no impact would occur.

J. LAND USE AND PLANNING

Would the project:

1.	*Physically divide an established community?*	☐	☐	☐	☒

Discussion: The proposed project does not include any element that would physically divide an established community. No impact would occur.

2.	*Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*	☐	☐	☐	☒

Discussion: The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated.

3.	*Conflict with any applicable habitat conservation plan or natural community conservation plan?*	☐	☐	☐	☒

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. See also D-1. No impact would occur.

K. MINERAL RESOURCES

Would the project:

1.	*Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2.	*Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*	☐	☐	☐	☒

Discussion: The project would not result in the loss of availability of a locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

L. NOISE

Would the project result in:

1.	*Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*	☐	☐	☐	☒

Discussion: The GP/LCP is being amended to relocate sections 6.9a, 6.9b, 6.10, and 6.11 from Chapter 6 to a stand-alone Noise Element in order to add material from the State guidelines for noise elements, modernize regulations, clarify existing standards, and introduce additional goals and policies. Specifically, Tables 6-1 and 6-2 has been clarified to distinguish between standards for noise exposure at sensitive receptors and standards that limit noise generation. Table 9-2, Normalization Factors for Calculating Noise Exposure, from the State guidelines for noise elements has been added. The normalization procedure allows for more refined assessment of locally acceptable noise exposure. See Attachment 1 for a more complete description of proposed changes to noise policies.

The proposed amendments are intended to assist in meeting the current noise thresholds

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

outlined in Figure 6-1 (Land Use Compatibility for Community Noise Environments) of the existing 1994 General Plan. The proposed changes would add a new noise exposure category "Normally Unacceptable" that would reduce the range of "Conditionally Acceptable" category by 5 dB CNEL for noise sensitive land uses to encourage lower noise exposure for those uses.

Transportation-related noise is currently the primary source of noise in the County. The proposal does not include amendments to either the Land Use Element or the Circulation Element of the adopted 1994 General Plan. Therefore, no changes are being proposed to patterns of development that would alter the number of vehicle trips or circulation patterns in a manner that might lead to an increase in future noise. As a result, no noise modeling was required for the proposed amendments.

The proposed amended General Plan Noise Element goals, objective, and policies would not result in any significant impacts to the noise environment.

2. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*	☐	☐	☐	☒

Discussion: The project proposes to replace Policy 6.9.6 "Vibrations from Rail" with Policy 9.2.8 "Groundbourne Vibration." The proposed policy would limit the extent of exposure that sensitive uses may have to ground borne vibration from trains, construction equipment, and other sources according to the Federal Transit Administration and Federal Railroad Administration guidelines. No impact is anticipated.

3. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*	☐	☐	☐	☒

Discussion: The project consists of General Plan/LCP policy amendments and as such does not directly authorize any physical construction. See also discussion under L-1. No impact is anticipated.

4. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*	☐	☐	☐	☒

Discussion: The project consists of General Plan/LCP policy amendments and as such does not directly authorize any physical construction. See also discussion under L-1. No impact is anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion: The amendments to the Noise Element add Figure 9-1, the most recent map of noise contours around the Watsonville Airport, so that the data is available for evaluations of noise impacts. The amendments also introduce the use of the technique of normalization for establishing appropriate noise level limits for new noise-sensitive development in the vicinity of an airport or other substantial noise source. The normalization procedure takes into account four categories of correction or normalization factors associated with the noise source and the characteristics of the affected community: (1) Seasonal variations in nose source levels; (2) Existing outdoor ambient noise level in the community (i.e., relative intrusiveness of the source); (3) Previous exposure to, and attitudes toward, the noise; and (4) Whether the noise includes pure tones or impulse characteristics. When it is possible to evaluate some or all of these factors, the measured or computed noise exposure values may be adjusted by means of the correction factors. This process would enable the noise analysis to more accurately assess the acceptable noise exposure. Overall, the amendments strengthen noise evaluations and the clarifications strengthen implementation of the standards that protect the community from excessive noise.

6. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion: See discussion under L-5. No impact is anticipated.

M. POPULATION AND HOUSING

Would the project:

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

Discussion: The proposed project would not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in the area. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace any existing housing. No impact would occur.

3. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace any people. No impact would occur.

N. PUBLIC SERVICES

Would the project:

1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*				
a. *Fire protection?*	☐	☐	☐	☒
b. *Police protection?*	☐	☐	☐	☒
c. *Schools?*	☐	☐	☐	☒
d. *Parks?*	☐	☐	☐	☒
e. *Other public facilities; including the maintenance of roads?*	☐	☐	☐	☒

Discussion (a through e): The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The project would not result in the need for any new or physically altered governmental facilities No impacts would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

O. RECREATION

Would the project:

1. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities. No impacts would occur.

2. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*	☐	☐	☐	☒

Discussion: The proposed project does not propose the expansion or construction of additional recreational facilities. No impact would occur.

P. TRANSPORTATION/TRAFFIC

Would the project:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*	☐	☐	☐	☒

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. There would be no impact because no additional traffic would be generated.

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

standards established by the county congestion management agency for designated roads or highways?

Discussion: The proposed project would not conflict with either the goals and/or policies of the RTP or with monitoring the delivery of state and federally-funded projects outlined in the RTIP. No impact would occur.

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*	☐	☐	☐	☒

Discussion: No change in air traffic patterns would result from project implementation. Therefore, no impact is anticipated.

4. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*	☐	☐	☐	☒

Discussion: The project does not affect road design or transportation. No increase in hazards would occur from project design or from incompatible uses. No impact would occur from project implementation.

5. *Result in inadequate emergency access?*	☐	☐	☐	☒

Discussion: The project would not result in inadequate emergency access.

6. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*	☐	☐	☐	☒

Discussion: The proposed project would no conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities No impact would occur.

Q. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such do not directly authorize any physical construction. The proposed project would not generate wastewater. Therefore, wastewater treatment requirements would not be exceeded. No impacts would occur.

2.	*Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed project would not require water or wastewater treatment. No impacts are expected to occur.

3.	*Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed project would not generate increased runoff; therefore, it would not result in the need for new or expanded drainage facilities. No impact would occur.

4.	*Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*	☐	☐	☐	☒

Discussion: The proposed project would have no impact on water supplies.

5.	*Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*	☐	☐	☐	☒

Discussion: The proposed project would have no impact on wastewater treatment capacity.

6.	*Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project would have no impact on landfill capacity.

7.	*Comply with federal, state, and local statutes and regulations related to solid waste?*	☐	☐	☐	☒

Discussion: The project would have no impact related to solid waste.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

R. MANDATORY FINDINGS OF SIGNIFICANCE

1.	*Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*	☐	☐	☐	☒

Discussion: The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III (A through Q) of this Initial Study. As a result of this evaluation, there is no evidence that significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2.	*Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*	☐	☐	☐	☒

Discussion: In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there is no evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through Q). As a result of this evaluation, there is no evidence that there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

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Coastal Commission staff report on City of Solana Beach Local Coastal Plan Amendment, January 2014.

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California Department of Conservation. 1980
Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

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County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2010
County of Santa Cruz Local Hazard Mitigation Plan 2010-2015. Prepared by the County of Santa Cruz Office of Emergency Services.

County of Santa Cruz, 1994
1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

MBUAPCD, 2008
Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a
Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

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Triennial Plan Revision 2009-2011. Monterey Bay Air Pollution Control District. Adopted April 17, 2013.

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Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. National Academies Press, Washington, D.C. pp.250. ISBN 978-309-24494-3.

United States Geological Survey, 2012

Flint, L.E., and Flint, A.L., 2012, Simulation of climate change in San Francisco Bay Basins, California: Case studies in the Russian River Valley and Santa Cruz Mountains: U.S. Geological Survey Scientific Investigations Report 2012–5132, 55 p.

Exhibit C

General Plan and Local Coastal Program
Chapter 6
Public Safety Element (clean)

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Chapter 6

PUBLIC SAFETY

- SEISMIC HAZARDS
- SLOPE STABILITY
- EROSION
- FLOOD HAZARDS
- FIRE HAZARDS
- HAZARDOUS AND TOXIC MATERIALS
- HAZARDOUS WASTE MANAGEMENT
- ELECTRIC AND MAGNETIC ENERGY

CONTENTS

Language identified with (LCP) is not restricted to the Coastal Zone; language which includes the (LCP) initials is part of the Local Coastal Program and applies countywide unless specifically stated that the policy, etc., is limited to the coastal zone.

AUTHORITY AND PURPOSE

The requirements for a Safety Element are established by State Planning law (Section 65302 g) as follows:

> "A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.
>
> To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.
>
> Each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of the safety element and any technical studies used for developing the safety element."

(1)

SUMMARY

The goals, objectives, policies and programs of this chapter are derived from the necessity to protect the community from natural hazards, as well as from hazards produced from the built environment. This chapter is divided into sections based on the particular hazards.

The Seismic Hazards section addresses geologic review requirements for development within designated fault zones. The second section addresses policies relating to slope stability. This section includes specific policies on Coastal Bluffs and Beaches as well as general requirements for when geologic review is required. The third section on Erosion is closely related to slope stability and addresses the need for drainage and erosion control plans for all development and sets forth standards for the prevention of erosion and siltation.

The policies of the Flood Hazards section require new development to be located outside of the flood hazard area, wherever possible.

The Fire Hazards section is the last section relating to natural hazards and establishes road standards and development requirements for fire protection.

The section on Hazardous and Toxic materials outlines the objectives and policies which relate to the management of hazardous wastes, and also outlines the County's desire to minimize the use and dissemination into the environment of hazardous and toxic materials generally.

The Hazardous Waste Management section addresses the siting of hazardous waste facilities as required by the Hazardous Waste Management Plan.

An Electric and Magnetic Fields section has be included, which sets forth policies for development near high voltage electric power transmission and distribution lines which could create health hazards.

Substantial background data on these hazards are available in chapter 5, Resources and Hazards, of the General Plan Update Background Report (1991) covering the urban area, and in the Technical Appendix (1991) as well as various specialized studies and planning documents (see references).

GOALS

The overall goals guiding the Public Safety Element are as follows:

Public Health and Safety (LCP): To protect human life, private property and the environment, and to minimize public expenses by preventing inappropriate use and development or location of public facilities and infrastructure in those areas which, by virtue of natural dynamic processes or proximity to other activities, present a potential threat to the public health, safety and general welfare.

SEISMIC HAZARDS

THE LOMA PRIETA EARTHQUAKE

At 5:04 p.m. on October 17, 1989, a magnitude 7.1 earthquake rocked the Monterey Bay and San Francisco Bay regions. The initial quake lasted only 22 seconds, although in the two weeks that followed, more than 4,000 aftershocks were recorded, with 20 of these greater than magnitude 5 on the on the Richter Scale. The epicenter of the Loma Prieta earthquake was about 10 miles east-northeast of the City of Santa Cruz in the Aptos planning area on the San Andreas fault.

The Loma Prieta earthquake was the largest to strike California since 1906, causing 62 deaths, 3,757 injuries, leaving more than 12,000 people homeless, disrupting transportation, utilities, and communications, and causing more than $6 billion in property damages.

In Santa Cruz County, 674 dwellings, 32 mobile homes and 310 businesses were destroyed in the earthquake. The State Office of Emergency Services estimated that damages to residential buildings was $176 million and $98 million to commercial structures in the County.

As of January 1991, Santa Cruz County had issued 7,460 building permits for reconstruction or repair of earthquake damaged structures, and had provided related services to 19,909 members of the public. Replacement of un-reinforced masonry chimneys made up the majority of residential repairs, followed by foundation replacement on older wood frame houses which predated current building codes and lacked basic seismic safety features such as foundation bolts and sufficient structural bracing.

Significant damage to streets, water systems, sewer systems and other public infrastructure was related to liquefaction and subsidence. Repair of infrastructure was financed in part by a voter-approved half cent sales tax levied over 6 years in Measure E, and a $33 million bond issue.

An evaluation of the response by the Santa Cruz County Emergency Operations Center concluded that the response to the earthquake was a success, with the OEC being fully operational within 25 minutes of the earthquake. Due to the County's susceptibility to earthquakes and other natural hazards, disaster response planning is an on-going process.

Objective 6.1 Seismic Hazards

(LCP) To reduce the potential for loss of life, injury, and property damage resulting from earthquakes by: regulating the siting and design of development in seismic hazard areas; encouraging open space, agricultural or low density land use in the fault zones; and increasing public information and awareness of seismic hazards.

Policies

6.1.1 Geologic Review for Development in Designated Fault Zones

(LCP) Require a review of geologic hazards for all discretionary development projects, including the creation of new lots, in designated fault zones. Fault zones designated for review include the Butano, Sargent, Zayante, and Corralitos complexes, as well as the State designated Seismic Review Zones. Required geologic reviews shall examine all potential seismic hazards, and may consist of a Geologic Hazards Assessment and a more complete investigation where required. Such assessment shall be prepared by County staff under supervision of the County Geologist, or a registered geologist may conduct this review at the applicant's choice and expense.

6.1.2 Geologic Reports for Development in Alquist-Priolo Zones

(LCP) Require a preliminary geologic report or full engineering geology report for development on parcels within Alquist-Priolo State-designated seismic review zones.

6.1.3 Engineering Geology Report for Public Facilities in Fault Zones

(LCP) Require a full engineering geology report by a registered geologist whenever a significant potential hazard is identified by a Geologic Hazards Assessment or Preliminary Geologic Report, and prior to the approval of any new public facility or critical structure within the designated fault zones.

6.1.4 Site Investigation Regarding Liquefaction Hazard

(LCP) Require site-specific investigation by a registered geologist and/or civil engineer of all development proposals of more than four residential units in areas designated as having a high or very high liquefaction potential. Proposals of four units and under and non-residential projects shall be reviewed for liquefaction hazard through environmental review and/or geologic hazards assessment, and when a significant potential hazard exists a site-specific investigation shall be required.

6.1.5 Location of New Development Away From Potentially Hazardous Areas

(LCP) Require the location and/or clustering of development away from potentially hazardous areas where feasible and condition development permits based on the recommendations of the site's Hazard Assessment or other technical reports.

6.1.6 Siting of New Reservoirs

(LCP) Require a full engineering geologic investigation prior to the construction of new reservoirs, and if an unmitigable hazard exists, do not approve the reservoir.

6.1.7 Dam Safety Act

(LCP) New dams shall be constructed according to high seismic design standards of the Dam Safety Act and as specified by structural engineering studies. Smaller reservoirs will be reviewed for potential seismic hazards as a part of the environmental review process.

6.1.8 Design Standards for New Public Facilities

(LCP) Require all new public facilities and critical structures to be designed to withstand the expected ground shaking during the design earthquake on the San Andreas Fault.

6.1.9 Recordation of Notice of Geologic Hazards

(LCP) Require the owner of a parcel in an area of potential geologic hazards to record on the property title/deed, with the County Recorder, a Notice of Hazards and the level of geologic and/or geotechnical investigation conducted as a condition of development approval.

6.1.10 Density Recommendations for Proposed Development

(LCP) Approve the final density of a development proposal only if it is consistent with the recommendations of the technical reports. Deny the location of the proposed development if it is found that the hazards on the site cannot be mitigated to within acceptable risk levels.

6.1.11 Setbacks from Faults

(LCP) Exclude from density calculations for land divisions, land within 50 feet of the edge of the area of fault induced offset and distortion of an active or potentially active fault trace. In addition, all new habitable structures on existing lots of record shall be set back a minimum of fifty (50) feet from the edge of the area of fault induced offset and distortion of an active or potentially active fault trace. This setback may be reduced to a minimum of twenty-five (25) feet based upon paleoseismic studies that include observation trenches. Reduction of the setback may only occur when both the consulting engineering 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 one hundred (100) feet from the edge of the area of fault induced offset and distortion of an active or potentially active fault traces. (Revised by Res. 81-99)

6.1.12 Minimum Parcel Size in Fault Zones

(LCP) Outside the Urban Services Line and Rural Services Line, require a minimum parcel size of 20 gross acres for the creation of new parcels within state and County designated seismic review zones if proposed building sites lie within the fault zone. Require a minimum parcel of 10 gross acres for the creation of new parcels within the portions of the County designated seismic review zones that are not part of a State Alquist-Priolo Earthquake Fault Zone, and which lie outside the Urban and Rural Services Lines and Coastal Zone, if 25% or more of the parcel perimeter is bounded by parcels 1-acre or less in size. Inside the Urban Services Line and Rural Services Line, allow density consistent with the General Plan and LCP Land Use designation if all structures are to be set back at least 50 feet from fault traces and meet all other conditions of technical reports. *(Amended by Res. 204-2008)*

Programs

a. Periodically update seismic design criteria and the Grading ordinance with the advice of qualified professionals as information becomes available in order to aid buildings and homeowners in constructing safe structures. (Responsibility: Planning Department)

b. Continue to evaluate existing public facilities to determine whether they can maintain structural integrity during the design earthquake. (Responsibility: Public Works, Board of Supervisors, California Department of Forestry)

c. Investigate the feasibility of requiring all new structures within fault zones and in areas subject to high or very high liquefaction potential, to be constructed to withstand ground shaking generated up to the design earthquake on the San Andreas fault. (Responsibility: Planning Department, Board of Supervisors)

d. Identify critical structures that were constructed prior to the adoption of current California Building Code (CBC) earthquake design requirements, and strengthen them structurally if possible or phase out their use. (Responsibility: County Office of Emergency Services, Public Works, Board of Supervisors, State of California)

e. Target the following structures to meet CBC Zone 4 seismic safety standards:
(1) Buildings constructed prior to 1955;
(2) Critical facilities:
- Essential facilities: buildings whose use is necessary during an emergency;
- Buildings whose occupancy is involuntary;
- High occupancy buildings.

(Responsibility: Planning Department, Public Works, Board of Supervisors, State of California)

f. Support seismic retrofit programs for residential properties. (Responsibility: Planning Department, Santa Cruz County Housing Authority, Board of Supervisors)

g. Comprehensively map the Geologic Hazard Combining Zone District to include areas having a high, moderate or uncertain surface rupture potential in order to place all existing regulations into one concise ordinance, and to notify future buyers of these policies as they pertain to individual parcels. (Responsibility: Board of Supervisors, Planning Commission, Planning Department)

h. Comprehensively map the Geologic Hazard Combining Zone District to include areas subject to high liquefaction hazard when precise technical information regarding the extent and activity of liquefiable materials is available. (Responsibility: Board of Supervisors, Planning Commission, Planning Department)

i. Revise existing seismic hazard maps as new, reliable information becomes available. (Responsibility: Planning Department)

j. Evaluate the probable response of community service agencies and emergency facilities to a damaging earthquake, and develop contingency plans for post-disaster emergency operations, including evacuation procedures. (Responsibility: County Office of Emergency Services)

k. Develop public education programs to increase public awareness of seismic hazards, and to inform the public of proper procedures before, during and after an earthquake that can help to

minimize injury and property loss. (Responsibility: Planning Department, County Office of Emergency Services)

Objective 6.2 Slope Stability

(LCP) To reduce safety hazards and property damage caused by landslides and other ground movements affecting land use activities in areas of unstable geologic formations, potentially unstable slopes and coastal bluff retreat.

Policies

6.2.1 Geologic Hazards Assessments for Development On and Near Slopes

(LCP) Require a geologic hazards assessment of all development, including grading permits, that is potentially affected by slope instability, regardless of the slope gradient on which the development takes place. Such assessment shall be prepared by County staff under supervision of the County Geologist, or a registered geologist may conduct this review at the applicant's choice and expense.

6.2.2 Engineering Geology Report

(LCP) Require an engineering geology report by a registered geologist and/or a soils engineering report when the hazard assessment identifies potentially unsafe geologic conditions in an area of proposed development.

6.2.3 Conditions for Development and Grading Permits

(LCP) Condition development and grading permits based on the recommendations of the hazard assessment and other technical reports.

6.2.4 Mitigation of Geologic Hazards and Density Considerations

(LCP) Deny the location of a proposed development or permit for a grading project if it is found that geologic hazards cannot be mitigated to within acceptable risk levels; and approve development proposals only if the project's density reflects consideration of the degree of hazard on the site, as determined by technical information.

6.2.5 Slope Considerations for Land Division Calculations

(LCP) Exclude land with slopes exceeding 30 percent in urban areas and 50 percent in rural areas and land with recent or active landslides from density calculations for land divisions.

6.2.6 Location of Structures and Drainage Considerations in Unstable Areas

(LCP) Require location and/or clustering of structures away from potentially unstable slopes whenever a feasible building site exists away from the unstable areas. Require drainage plans that direct runoff and drainage away from unstable slopes.

6.2.7 Location of Septic Leachfields

(LCP) Prohibit the location of septic leachfields in areas subject to landsliding, unless investigation by a registered geologist and soils engineer demonstrates that such placement will not adversely affect slope stability.

6.2.8 Road Construction (deleted by Res. 81-99)

6.2.9 Recordation of Geologic Hazards

(LCP) Require the owner of a parcel in an area of potential geologic hazards to record, with the County Recorder, a Notice of Hazards and the level of prior geologic and/or geotechnical investigation conducted as a condition of development approval.

Programs

a. Implement a program to document the public and private costs of landslides, to identify existing landslides, and revise County maps as additional information becomes available. Require property owners and public agencies to control landslide conditions which threaten structures or roads. (Responsibility: Planning Department)

b. Maintain and periodically update public information brochures concerning landslide hazards and guidelines for hillside development as new information becomes available. (Responsibility: Planning Department)

COASTAL BLUFFS AND BEACHES

The purpose of the coastal bluffs and beaches policies is to minimize risks to life, property, and public infrastructure in coastal hazard areas and minimize adverse impacts on coastal resources from development in coastal hazard areas. One of the primary approaches to minimizing hazards is to avoid locating new development in hazardous areas, wherever feasible. The policies address this with requirements for development to be set back from coastal bluffs, and elevation of structures on the beach. These policies require that sea level rise be factored into the calculation of coastal bluff erosion rates and minimum elevation of structures on the beach. In addition, policies require property owners to acknowledge and accept the risks to property and health and safety that are associated with developing property in hazardous areas.

The policies provide for appropriate siting of development to avoid the perpetuation of shoreline armoring. The policies address situations for when shoreline protective measures may be considered in response to coastal erosion. Where shoreline or coastal bluff protection measures currently exist, the policies link evaluation of the protection measure to the structure that is protected, and may impose requirements to modernize the coastal protection structure to minimize public impacts and maximize benefits.

As a strategy to adapt to future sea level rise, and recognizing the unique features, existing development patterns, and needs of Santa Cruz County, the policies on coastal bluff setback and shoreline and coastal bluff protection measures treat urban areas of the County differently than rural areas. In urbanized areas where the development pattern is set, it is not likely that existing public roads and infrastructure will be relocated. The policies therefore allow existing protection measures to be factored into the calculation of coastal bluff setback within the urban areas of the County. Policies provide for an exception to the coastal bluff setback in limited cases where there is existing development and coastal bluff protection.

Policies

6.2.10 Site Development to Minimize Hazards

(LCP) **R**equire all developments to be sited and designed to avoid or minimize hazards, including coastal hazards associated with anticipated sea level rise, and not contribute to coastal hazards, as determined by the geologic hazards assessment or geologic and engineering investigations. *(Revised by Res. 81-99)*

6.2.11 Use Best Available Science for Sea Level Rise

(LCP) Recognize scientific uncertainty by using a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values and the projection to be used shall be revised during periodic updates of LCP policies, County Codes, and departmental procedures based on best available new science, as determined by the Planning Director.

6.2.12 Geologic Hazards Assessment in Coastal Hazard Areas

(LCP) Require a geologic hazards assessment or geologic, geotechnical, hydrologic, or other engineering 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)*

6.2.13 Setbacks from Coastal Bluffs

(LCP) All development activities, as defined in County Code Chapter 16.10, 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 assumed 100-year lifetime of the structure, as determined through geologic, geotechnical, hydrologic, or other engineering reports. The setback shall be evaluated 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. Current best available science projections of sea level rise shall be used to calculate the bluff setback.

6.2.14 Setback Considerations for Existing or Proposed Shoreline or Bluff Protection Measures

(LCP) Outside the Urban or Rural Services Line the calculation of the 100 year setback shall not take into consideration the effect of any existing or proposed shoreline or coastal bluff protection measure.

Within the Urban or Rural Services Line the calculation of the 100 year setback may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. Protection measures installed under an emergency permit shall not be factored into the setback calculation until a regular Coastal Development Permit is issued and all conditions of the permit are met.

Existing shoreline and coastal bluff protective measures may have both beneficial and adverse impacts on public coastal resources. On lots with legally established shoreline or coastal bluff protection measures, the required setback analysis shall consider the condition of the existing shoreline or coastal bluff protection measure; and identify any impacts it may

be having on public access and recreation, scenic views, sand supply and other coastal resources. The analysis shall also identify any benefits the protection measure may provide, including but not limited to, public access, and protection of public roads and infrastructure. The analysis must evaluate opportunities to modify or replace the existing protective device in a manner that would eliminate or reduce those impacts, while maintaining public benefits. Also See Policy 6.2.22. The analysis shall also be made under an assumption the existing protection measure is not assumed to exist, in order to provide a measure of the impacts of the existing protection measure on the site conditions. All reasonable measures to eliminate or reduce impacts to coastal resources and maintain public benefits must be implemented as a condition of project approval, considering principles of nexus and proportionality.

6.2.15 Reduction to Setback from Coastal Bluff

(LCP) On lots within the Urban or Rural Services Lines with a legally established coastal bluff protection measure, and an existing legal habitable structure, the Planning Director may reduce the required 100-year setback for repair, maintenance, improvement or reconstruction of such structures that currently encroach into the setback, and there is no alternative location on the property owner's lots to relocate the structure. No reduction is allowed to the 25-foot minimum coastal bluff setback. The footprint of the portion of the structure within the 100-year setback may change, but the area of that portion of the footprint must not increase. The project analysis must consider the existing shoreline or coastal bluff protection measure pursuant to Policy 6.2.14.

6.2.16 Additions to Existing Structures

(LCP) Additions, of any size, including second story and cantilevered additions, that extend the existing structure in a seaward direction shall comply with the applicable setback requirements of 6.2.13, and 6.2.14 and 6.2.15. *(Revised by Res. 81-99)*

6.2.17 New Development on Existing Lots of Record

(LCP) Allow new 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, geologic, geotechnical, hydrologic, or other 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 measures, except on lots in the Urban and Rural Services Line that have legally established protection measures, or where both adjacent parcels are already similarly protected; and

(c) The owner records a Declaration of Geologic Hazards, Acknowledgement and Assumption of Risk, on the property deed that describes the potential hazard and the level of technical investigation conducted, and exempting the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by

such coastal permit must be consistent with Policies 6.2.13, 6.2.14, and 6.2.21. *(Revised by Res. 81-99)*

6.2.18 Swimming Pools and Spas

(LCP) All new swimming pools and spas shall be located landward of the required coastal bluff setback line. New swimming pools and spas on bluff property shall have double wall construction with drains and leak detection systems.

6.2.19 Accessory Structures

(LCP) Coastal Development Permits (CDPs) authorizing accessory structures must include a condition of approval that requires the property owner (and all successors in interest) to apply for a CDP to remove the accessory structure(s) if a licensed geotechnical engineer determines that the accessory structure is in danger from erosion, landslide, or other form of bluff collapse.

6.2.20 Declaration of Geologic Hazard, Acknowledgement, and Assumption of Risk

(LCP) As a condition of CDP approval for development in hazardous areas, require the applicant to record a Declaration of Geologic Hazards on the property deed that describes the potential hazards and level of technical investigation conducted, accepting risk, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

6.2.21 Structural Shoreline and Coastal Bluff Protection Measures

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

Require any application for shoreline and coastal bluff 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.

Any new, modified, or replacement protection measure must not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, adversely impact recreational resources, increase erosion or flooding on adjacent properties, or cause harmful impacts on wildlife and fish habitats or archaeological or paleontological resources. Shoreline protection measures shall minimize visual impact by employing materials that blend with the color of natural materials in the area, and by using vegetation for screening as applicable to the setting.

The protection measure must be placed as close as possible to the coastal bluff and must be designed to minimize adverse impacts to recreation and to minimize visual intrusion.

Shoreline and coastal bluff protection measures shall be designed to meet approved engineering standards for the site as determined through the environmental review, and grading and building process.

Detailed technical studies shall be required to accurately define oceanographic conditions affecting the site. All shoreline protective measures 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 and coastal bluff protective measures 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 on the title/deed of the property, and shall allow for County removal or repair of a shoreline protective measure, 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)

No shoreline or bluff protection measure shall be allowed for the sole purpose of protecting an accessory structure.

No permit shall be issued for retention of a shoreline or coastal bluff protection measure unless the County finds that the shoreline or coastal bluff protection measure is necessary to protect an existing principal structure, public road or infrastructure that is in danger from erosion, that it will minimize further alteration of the natural landform of the bluff, and that adequate mitigation for any adverse impacts on coastal resource, including but not limited to impacts to a public beach has been provided.

Existing shoreline or coastal bluff protection measures which do not conform to the provisions of the LCP, including structural or aesthetic requirements, may be repaired and maintained to the extent that such repairs and/or maintenance conform to the provisions of the LCP

Expansion, alteration, reconstruction, or replacement of a legally authorized shoreline or bluff protection measure located within the USL/RSL shall include a reassessment of the need for the shoreline protective device to protect existing structure, public roads and infrastructure, analysis of whether any modifications are necessary to eliminate or reduce adverse impacts the subject measure may be having on public access and recreation, scenic views, sand supply and other coastal resources, and an evaluation of opportunities to modify or replace the the subject measure in a manner that would eliminate or reduce those impacts while maintain public benefits such as preservation of public infrastructure and public access to the coast.

6.2.22 (LCP) **Prohibit New Building Sites in Coastal Hazard Areas**

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.

6.2.23 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)

6.2.24 Publicly Owned Facilities

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

6.2.25 Density Calculations

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

6.2.26 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.

6.2.27 Reconstruction of Damaged Structures on Coastal Bluffs

(LCP) Reconstruction of structures on or at the top of a coastal bluff which are damaged as a result of coastal hazards, must be found consistent with all applicable LCP policies. A development proposal is considered reconstruction and the entire structure must be found consistent with all applicable LCP policies if the project meets the definition of reconstruction in Chapter 16.10.040(14) of the County Code.

For structures damaged by other than coastal hazards, where the repairs meet the definition of reconstruction in Chapter 16.10.040(14) of the County Code , allow in-kind reconstruction, subject to all regulations except for the minimum setback. Allow other than in-kind reconstruction only if all regulations and the minimum setback are met.

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

Programs

(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)

(LCP) c. 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)

d. Review existing coastal protection measures 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 measures to evaluate their effectiveness and potential for becoming public hazards. Shoreline protective measures 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 measures 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 measure to a reasonable level or remove and replace the measure within one year of the notice. Consider County action to maintain or remove and replace the measure and recover costs by a lien against the property if the property owner does not act within one year of such notice, or other timeframe as may be extended and approved by the County. (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 measures. Provide geo-reference (latitude and longtitude) for each monument and structure. (Responsibility: Planning Department, Public Works)

Objectives 6.3 Erosion

(LCP) To control erosion and siltation originating from existing conditions, current land use activities, and from new developments, to reduce damage to soil, water, and biotic resources.

Policies

6.3.1 Slope Restrictions

(LCP) Prohibit structures in discretionary projects on slopes in excess of 30 percent. A single-family dwelling on an existing lot of record may be excepted from the prohibition where siting on greater slopes would result in less land disturbance, or siting on lesser slopes is infeasible.

6.3.2 Grading Projects to Incorporate Mitigation Measures

(LCP) Deny any grading project where a potential danger to soil or water resources has been identified and adequate mitigation measures cannot be undertaken.

6.3.3 Abatement of Grading and Drainage Problems

(LCP) Require, as a condition of development approval, abatement of any grading or drainage condition on the property which gives rise to existing or potential erosion problems.

6.3.4 Erosion Control Plan Approval Required for Development

(LCP) Require approval of an erosion control plan for all development, as specified in the Erosion Control ordinance. Vegetation removal shall be minimized and limited to that amount indicated on the approved development plans, but shall be consistent with fire safety requirements.

6.3.5 Installation of Erosion Control Measures

Require the installation of erosion control measures consistent with the Erosion Control ordinance, by October 15, or the advent of significant rain, or project completion, whichever occurs first. Prior to October 15, require adequate erosion control to be provided to prevent erosion from early storms. For development activities, require protection of exposed soil from erosion between October 15 and April 15 and require vegetation and stabilization of disturbed areas prior to completion of the project. For agricultural activities, require that adequate measuresare taken to prevent excessive sediment from leaving the property.

6.3.6 Earthmoving in Least Disturbed or Water Supply Watersheds

Prohibit earthmoving operations in areas of very high or high erosion hazard potential and in Least Disturbed or Water-Supply Watersheds between October 15 and April 15, unless preauthorized by the Planning Director. If such activities take place, measures to control erosion must be in place at the end of each day's work.

6.3.7 Reuse of Topsoil and Native Vegetation Upon Grading Completion

Require topsoil to be stockpiled and reapplied upon completion of grading to promote regrowth of vegetation; native vegetation should be used in replanting disturbed areas to enhance long-term stability.

6.3.8 On-Site Sediment Containment

(LCP) Require containment of all sediment on the site during construction and require drainage improvements for the completed development that will provide runoff control, including onsite retention or detention where downstream drainage facilities have limited capacity. Runoff control systems or Best Management Practices shall be adequate to prevent any significant increase in site runoff over pre-existing volumes and velocities and to maximize on-site collection of non-point source pollutants.

6.3.9 Site Design to Minimize Grading

(LCP) Require site design in all areas to minimize grading activities and reduce vegetation removal based on the following guidelines:

(a) Structures should be clustered;

(b) Access roads and driveways shall not cross slopes greater than 30 percent; cuts and fills should not exceed 10 feet, unless they are wholly underneath the footprint and adequately retained;

(c) Foundation designs should minimize excavation or fill;

(d) Building and access envelopes should be designated on the basis of site inspection to avoid particularly erodable areas;

(e) Require all fill and sidecast material to be recompacted to engineered standards, reseeded, and mulched and/or burlap covered.

6.3.10 Land Clearing Permit

(LCP) Require a land clearing permit and an erosion control plan for clearing one quarter or more acres, except when clearing is for existing agricultural uses. Require that any erosion control and land clearing activities be consistent with all General Plan and LCP Land Use Plan policies.

6.3.11 Sensitive Habitat Considerations for Land Clearing Permits

(LCP) Require a permit for any amount of land clearing in a sensitive habitat area and for clearing more than one quarter acre in Water Supply Watershed, Least Disturbed Watershed, very high and high erosion hazard areas no matter what the parcel size. Require that any land clearing be consistent with all General Plan and LCP Land Use policies.

Programs

(LCP) a. Establish an active erosion control education program for the general public, builders, and staff, in cooperation with the Resource Conservation District and the Soil Conservation Service. (Responsibility: Planning Department)

b. Enforce the comprehensive Erosion Control ordinance requiring control of existing erosion problems as well as the installation of erosion, sediment, and runoff control measures in new developments. (Responsibility: Planning Department, Planning Commission, Board of Supervisors)

(LCP) c. Develop cost-sharing programs with outside funding to assist property owners with control of existing problems that are too large to be effectively controlled by the owner. (Responsibility: Planning Department)

(LCP) d. Encourage use of Resource Conservation District programs to control existing erosion problems. (Responsibility: Planning Department)

Objective 6.4 Flood Hazards

(LCP) To protect new and existing structures from flood hazards, including sea level rise, in order to minimize economic damages and threats to public health and safety, and to prevent adverse impacts on floodplains, and maintain their beneficial function for flood water storage and transport and for biotic resource protection.

6.4.1 Use Best Available Science for Sea Level Rise

(LCP) Recognize scientific uncertainty by using a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values and the projection to be used shall be revised during periodic updates of LCP policies, County Codes, and departmental procedures based on best available new science, as determined by the Planning Director.

6.4.1 Flood Hazards Assessment Required in Flood Hazard Areas

(LCP) Require a flood hazards assessment of all development proposals within the County's flood hazard areas in order to identify flood hazards and development constraints.

6.4.2 Development Proposals Protected from Flood Hazard

(LCP) Approve only those grading applications and development proposals that are adequately protected from flood hazard and which do not add to flooding damage potential. This may include the requirement for foundation design which minimizes displacement of flood waters, as well as other mitigation measures.

6.4.3 Site Development to Minimize Hazards

(LCP) Require all developments to be sited and designed to avoid or minimize flood hazards.

6.4.4 Locate New Public Facilities Outside Flood Hazard Areas

(LCP) Require new utilities, critical facilities and non-essential public structures to be located outside the flood hazard area, 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 flood hazard area.

6.4.5 New Parcels or Lots in Flood Hazard Areas

(LCP) Allow the creation of new parcels or lots, including those created by minor land division or subdivision, in the flood hazard area 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) The final recorded map shall indicate the limits and elevations of the flood hazard area, as certified by a registered professional engineer or surveyor.
(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. (Revised by Res. 81-99)

6.4.6 Density Calculations

(LCP) In all areas exclude the portion of the property designated within the flood hazard area from density calculations.

6.4.7 New Construction to be Outside Flood Hazard Areas

(LCP) Restrict new construction to the area outside the flood hazard area, if a buildable portion of the parcel exists outside such areas.

6.4.8 Elevation of Residential Structures

(LCP) Require elevation of the habitable portions of residential structures above the 100-year flood level where constructed within a flood hazard area. Require floodproofing or elevation of non-residential structures. Required that foundations do not cause floodwater displacement except where necessary for flood-proofing.

6.4.9 Require Freeboard

(LCP) Freeboard is a factor of safety measured in feet above a base flood elevation or height for purposes of floodplain management. Freeboard is required to compensate for the many unknown factors that could contribute to flood heights or elevations greater than the height or elevation calculated for a selected size flood and floodway conditions, such as wave action, bridges, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. For all structures located on parcels that are partially or wholly in Coastal A and V Zones freeboard above the wave run up elevation shall be based on a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values may be revised periodically based on best available new science, as determined by the Planning Director. For habitable structures located in flood hazard areas outside of Coastal A and V Zones, freeboard, above the base flood elevation shall be determined by the Planning Director.

6.4.10 Septic Systems and Leach Fields

(LCP) Septic systems and leach fields to serve previously undeveloped parcels shall not be located within the flood hazard area. The capacity of existing systems in the flood hazard area shall not be increased. Septic systems shall be locted and designed to avoid impairment or contamination.

6.4.11 Fill Placement

(LCP) Allow grading within the 100-year floodplain only if there is no net increase in fill and only if it can be demonstrated that the grading will not have cumulative adverse impacts on or off site. No fill is allowed in the floodway.

6.4.12 Flood Control Structures

(LCP) Allow flood control structures only to protect existing development (including agricultural operations) where no other alternative is feasible and where such protection is necessary for public safety. The structures must not adversely affect sand supply, increase erosion or flooding on adjacent properties, or restrict stream flows below minimum levels necessary for the maintenance of fish and wildlife habitats.

Programs

a. Continue the Floodplain Management Program in accordance with the Federal Flood Insurance Program. (Responsibility: Planning Department)

b. Revise County floodplain maps as updated information becomes available. (Responsibility: Planning Department, FEMA)

c. Comprehensively map the Geologic Hazards Combining District in order to place all existing regulations into one concise and consistent ordinance and to notify future buyers of the policies as they pertain to affected parcels. (Responsibility: Planning Commission, Planning Department)

d. Maintain culverts and drainage facilities on County roads, and seek to eliminate log-jams and other obstructions from stream courses. (Responsibility: Public Works, Planning Department)

e. Continue to provide information to property owners located in flood hazard areas and coastal high hazard areas to encourage participation in the Federal Flood Insurance Program. (Responsibility: Planning Department)

f. Maintain the Automated Local Evaluation in Real Time (ALERT) Systems along Soquel Creek and Corralitos Creek. Implement a floodplain warning system for the San Lorenzo River, Aptos Creek and Valencia Creek. The Pajaro River Basin continues to be monitored by the National Weather Service. (Responsibility: Planning Department, County Office of Emergency Services)

g. Prepare detailed tsunami evacuation plans for coastal areas subject to the tsunami hazard. (Responsibility: County Office of Emergency Services)

(LCP) h. Incorporate more detailed information on tsunami inundation levels into the existing flood hazard program when this information is available. Existing development regulations would then apply to areas subject to this hazard. (Responsibility: County Office of Emergency Services)

i. Prepare and adopt an emergency warning system and detailed evacuation plans for areas subject to inundation in the event of failure of the Newell Creek Dam. (Responsibility: County Office of Emergency Services)

j. Work with relevant state and federal agencies to monitor potential rise in sea level due to the greenhouse effect and develop long term programs to address the impacts. (Responsibility: Planning Department, Board of Supervisors)

FIRE HAZARDS

Fire History

Prior to about 1950 information on wildfire in Santa Cruz County was limited to verbal history and newspaper accounts. After the Division of Forestry began gathering data in the 1950's, significant wildfires in Santa Cruz and adjacent counties were documented in the early 1960's and again in the 1980's (Lexington fire). The devastating wildfires that occurred in Santa Cruz County in 2008 (Summit, Martin and Trabing fires) and 2009 (Lockheed and Loma fires) burned a combined area of nearly 14,000 acres and numerous homes and structures. What makes wildfire different today as compared to the early part of the the last century is the number of people living in the rural area, or the Wildland Urban Interface (WUI). According to the United States Census, the population of Santa Cruz County has increased by nearly 200,000 people since the middle of the last century, from 66,534 in 1950 to 262,340 in 2010. Much of the increase occurred in urban areas, but rural areas have experienced significant population increases, as well. This has caused the fire agencies to change their approach to fire hazards from focusing primarily on the fire to dealing with increasing demands for protecting roads, structures, and people. Because there are not enough firefighters or fire apparatus to protect each and every home during a wildfire, the community and government must take greater responsibility for preventative measures to make homes, neighborhoods, and the community more defensible from wildfire. (Source: San Mateo - Santa Cruz Unit Strategic Fire Plan)

Fire Plans

The San Mateo - Santa Cruz Unit Strategic Fire Plan identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce losses within the Unit. There is a history of collaborative efforts between fire agencies and communities including Las Cumbres, Olive Springs and Bonny Doon. Efforts such as these have resulted in numerous fuel reduction projects and community education. More recently, the Unit has seen an unprecedented level of pre-fire "grass roots" organization, including the formation of the Soquel, South Skyline, and Bonny Doon Fire Safe Councils. Also, with the assistance of the Resource Conservation District (RCD) through a grant from the United Fish and Wildlife Service, a Community Wildfire Protection Plan (CWPP) was developed with input from stakeholders throughout Santa Cruz County. In 2010, the Board of Supervisors for Santa Cruz County adopted the 2010 San Mateo County – Santa Cruz County CWPP. The Unit Strategic Fire Plan is meant to work in collaboration with the CWPP

The CWPP attempts to identify fire hazards, as seen across the landscape, and provide strategies to mitigate wildfire risk and restore healthier, more resilient ecosystems while protecting life and property. A CWPP also serves as a tool for the accrual of grant funding to aid in the implementation of wildfire prevention projects. The CWPP is a guidance document that recommends both general and specific projects in priority fuel reduction areas, and provides recommendations to reduce the ignitability of structures. Local projects are subject to appropriate permitting and environmental review process. The CWPP was developed collaboratively by CAL FIRE, Resource Conservation District of Santa Cruz and San Mateo Counties, the United State Fish and Wildlife Service, other agencies, and members of the community.

State and Local Responsibility Areas

Wildland fire protection in California is the responsibility of the State, local government, or the federal government depending on location. The State Responsibility Area (SRA) is the area of the state where financial responsibility for the prevention and suppression of wildfires is primarily the responsibility of the state. In general, SRA includes forest-covered lands, whether of commercial value or not, or brush or

grass-covered lands. SRA does not include lands within city boundaries or in federal ownership. Fire protection in SRA is typically provided by CAL FIRE. However, in Santa Cruz County, autonomous fire protection districts provide fire protection in large parts of the SRA. Local responsibility areas (LRA) include incorporated cities and other urbanized areas, and cultivated agriculture lands. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, and by CAL FIRE under contract to local government.

CAL FIRE is the County Fire Department for the unincorporated areas of Santa Cruz County that are not included in an autonomous fire protection district. In addition, the County contracts with CAL FIRE to provide fire protection for Pajaro Dunes, and to provide administrative and staffing needs for the Pajaro Valley Fire Protection District.

Because the majority of wildland fires occur in the SRA, there is potential for many different agencies in the county to be affected. In many cases, fires occur in Mutual Threat Zones (MTZ's) or in areas near adjoining jurisdictions and also in the LRAs. It is through mutual relationships with local government agencies where initial attack resources become larger and more effective. The following Santa Cruz County local government agencies are typically available and involved in suppressing wildland fires:

Aptos/La Selva Fire Protection District
Scotts Valley Fire Protection District
Boulder Creek Fire Protection District
Central Fire Protection District of Santa Cruz County
Felton Fire Protection District
Santa Cruz City Fire Department
Watsonville Fire Department
Zayante Fire Protection District
Ben Lomond Fire Protection District
Branciforte Fire Protection District
Pajaro Valley Fire Protection District

A person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining SRAs are required by Public Resource Code (PRC) 4291 to maintain defensible space around structures on their property. Defensible space means the area adjacent to a structure or dwelling where wildfire prevention or protection practices are implemented to provide defense from an approaching wildfire or to minimize the spread of a structure fire to wildlands or surrounding areas. Responsibility for maintaining defensible space is limited to 100 feet from structure(s) or to the property line, whichever is closer. Defensible space inspections are completed by inspectors from CAL FIRE, engine companies, and fire protection districts (Central and Aptos/La Selva). Educational materials are distributed to residents during inspections, through direct mailing, and at public events including a brief pamphlet focusing on defensible space and a document called Living With Fire in Santa Cruz County.

The Santa Cruz County Code requires new projects and construction to meet fire safety standards consistent with State law (PRC 4290). Chapter 7.92 of the County Code establishes requirements for fuel modification and emergency water supply, as well as minimum fire safe driveway and road standards. New structures built in Santa Cruz County must also comply with fire safety building regulations. These building codes require the use of ignition-resistant building materials in higher risk areas and establish design standards to improve the ability of a building to survive a wildfire.

CAL FIRE has mapped areas of very high fire hazard within LRA and SRA. Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on relevant factors such as fuels, terrain, and weather. The Fire Code of Santa Cruz County (County Code Chapter 7.92) includes provisions to improve the ignition resistance of buildings, especially from firebrands. The updated fire hazard severity zones will be used by the Building Official to determine appropriate construction materials for new buildings in the Wildland-Urban Interface. In addition, pursuant to State law, the updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of the property sale, and with the 100 foot defensible space clearance requirements.

The County's GIS mapping information system has been updated to incorporate the FHSZ maps for Santa Cruz County. These maps complement the existing General Plan Resources and Constraints maps designating Critical Fire Hazard Areas.

Objective 6.5 Fire Hazards

To protect the public from the hazards of fire through citizen awareness, mitigating the risks of fire, responsible fire protection planning and built-in systems for fire detection and suppression.

Policies

6.5.1 Defensible Space

In the State Responsibility Area and Very High Fire Hazard Severity Zones within the Local Responsibility Area maintain defensible space of 100 feet from each side and from the front and rear of structures, but not beyond the property line. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, with the most intense management being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this policy, "fuel" means any combustible material, including petroleum-based products and wildland fuels.

6.5.2 Defensible Space in Environmental Resource Areas

Fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state or local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, water quality, air quality, and cultural/archeological resources, and obtain any and all required permits.

6.5.3 Exception in Sensitive Habitat for Defensible Space

Establishment and maintenance of defensible space in order to comply with state law may qualify for an exception to the Sensitive Habitat Protection Ordinance if the following findings can be made: 1) That adequate measures will be taken to ensure consistency with the purpose of this chapter to minimize the disturbance of sensitive habitats; and 2) It can be

demonstrated by biotic assessment, biotic report, or other technical information that the exception is necessary to protect public health, safety, and welfare.

6.5.4 Access Standards

Require all new structures, including additions of more than 500 square feet, to single-family dwellings on existing parcels of record, to provide, and maintain, an adequate road for fire protection in conformance with the following standards:

(a) Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet. Areas within 10 feet on each side of portions of highways, public and private streets and roads which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth, and maintained, consistent with the defensible space requirements for the 30 – 100-foot zone around structures. Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, succulents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

Exceptions:

Outside the Urban Services Line: Access roads shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

Inside the Urban Services Line: Inside of the Urban Services Line, private access roads extending from a public road shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

(b) Obstruction of the road width, as required above, including the parking of vehicles, shall be prohibited, as required in the Fire Code of Santa Cruz County.
(c) The access road surface shall be "all weather", which is defined based on road gradient as follows: zero to five percent gradient - a minimum of six inches of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction and shall be maintained; five to fifteen percent gradient – the required base rock shall be overlain by oil and screenings; greater than fifteen percent grade - the required base rock shall be overlain by 2 inches of asphaltic concrete and shall be maintained.
(d) The maximum grade of the access road shall not exceed 20 percent (18 percent average), with grades greater than 15 percent not permitted for distances of more than 200 feet at a time, and grades not exceeding 15 percent in State Responsibility Area.

(e) The access road shall have a vertical clearance of 15 feet for its entire width and length, including turnouts in State Responsibility Area, and 13 feet, 6 inches in other areas.
(f) All gates providing access from a road to a driveway, or within any access road, shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on the road. Gates shall be a minimum of 2 feet wider than the access road/driveway they serve but in no case shall the width be less than 14 (fourteen) feet. Overhead gate structures shall have a minimum of 15 feet vertical clearance. When gates are to be locked, the installation of a key box or other acceptable means for immediate access may be required by the fire code official.
(g) An access road or driveway shall not end farther than 150 feet from any portion of a structure.
(h) A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length.
(i) No roadway in the State Responsibility Area shall have an inside turning radius of less than 50 feet, with minimum centerline turning radius of 35 feet in other areas. Roadways with a radius curvature of 50 to 100 feet shall require an additional 4 feet of road width. Roadways with radius curvatures of 100 to 200 feet shall require an additional 2 feet of road width.
(j) Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.
(k) Bridges shall be a minimum of 20 feet of clear width, meet a minimum load bearing capacity of 25 tons (AASHTO HS-20), and have guard rails. Guard rails shall not reduce the required minimum road width. Width requirements may be modified for access to U-1, U-2 or R-3 occupancies in accordance with other General Plan Fire Hazard policies only with written approval from the fire code official. In such cases, bridges shall be as wide as the road or driveway being serviced. Every private bridge hereafter constructed shall be engineered by a licensed civil or structural engineer and approved by the fire code official. Certification shall be provided by the licensed engineer in writing that the bridge complies with the design standard required by this section to the fire code official. Bridge capacity shall be posted and shall be recertified every ten years by a licensed engineer. For bridges served by 12 foot access roads, approved turnouts shall be provided at each bridge approach as approved by the fire code official.
(l) All private access roads, driveways, gates, turnarounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times.
(m) To ensure maintenance of private access roads, driveways, turnarounds and bridges, the owner(s) of parcels where new development is proposed shall participate in an existing road maintenance group. For those without existing maintenance agreements, the formation of such an agreement shall be required.
(n) All access road and bridge improvements required under this section shall be made prior to permit approval, or as a condition of permit approval.
(o) Access for any new dwelling unit or other structure used for human occupancy, including a single-family dwelling on an existing parcel of record, shall be in the duly recorded form of a deeded access or an access recognized by court order.

Diagrammatic representations of access standards are available at the Santa Cruz County Planning Department and local fire agencies.

6.5.5 Exceptions to Access Road Standards

Exceptions to these standards may be granted at the discretion of the fire code official for single-family dwellings on existing parcels of record as follows:

(b) When the existing access road is acceptable to the Fire Department having jurisdiction.

(c) In addition, any of the following mitigation methods may be required:

(1) Participation in an existing or formation of a new road maintenance group or association.

(2) Completion of certain road improvements such as fill pot holes, resurface access road, provide turnouts, cut back brush, etc. are made, as determined by the fire officials, and provided that the fire department determines that adequate fire protection can still be provided.

(3) Provision of approved fire protection systems as determined by the fire code official.

(d) The level of road improvement required shall bear a reasonable relationship to the magnitude of development proposed.

6.5.6 Conditions and Standards for Project Approval

Condition approval of all new structures and additions larger than 500 square feet to single-family dwellings on existing parcels of record to meet, and maintain at all times, the following fire protection standards:

(a) Address numbers shall be posted on the property so as to be clearly visible from the access road. Where visibility cannot be provided, a post or sign bearing the numbers shall be set adjacent to the driveway or access road to the property and shall have a contrasting background. Numbers shall be posted when construction begins. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Address numbers shall be maintained

(b) Provide adequate water availability. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction in accordance with the Fire Code of Santa Cruz County. The fire department shall determine the adequacy and location of individual water storage fire flow to be provided. Built-in fire protection features (i.e., sprinkler systems) may allow for some exemptions of other fire protection standards when incorporated into the project.

(c) Maintain all around structures a defensible space of not less than 30 feet or to the property line (whichever is a shorter distance); or for a greater distance as may be prescribed by the fire department. In State Responsibility Areas and Very High Fire Hazard Severity Zones maintain all around structures a defesible space of not less than 100 feet or to the property line (whichever is a shorter distance).

(d) Provide and maintain a spark arrester constructed with heavy wire mesh or other noncombustible material with openings not to exceed 1/2 inch (12.7 mm).

(e) Automatic smoke detection and carbon monoxide devices shall be installed and maintained in accordance with the California Building Code and local Fire Department regulations. Sprinkler and fire alarm systems, when installed, shall meet the requirements of the local Fire Department and shall be maintained at all times.

(f) Provide adequate disposal of refuse. All development outside refuse collection boundaries shall be required to include a suitable plan for the disposal of flammable refuse. Refuse disposal shall be in accordance with state, County or local plans or ordinances. Open

outdoor burning for the purpose of disposal or burning of household rubbish and/or waste is prohibited.

(g) Require fire retardant construction on all projects, as specified in the Building Code of the County of Santa Cruz.

6.5.7 Fire Protection Standards for Land Divisions Outside the Urban Services Line

Require all new minor land divisions and subdivisions outside the Urban Services Line to meet the following fire protection standards:

(a) If a proposed building site is located on a dead-end access road and is more than one-half mile from the nearest intersection with a through road, then secondary access must be provided. (See section 6.5.8, Standards for Dead-End Roads). If building site is located within a 5 minute response time from the fire department and within 500 feet of a county maintained road, then secondary access will not be required. Secondary access is defined as a 12 foot wide all-weather surface roadway with a recorded right of access and maintenance agreement. The secondary access may be provided with a gate or other barrier on the approval of the fire code official. If these conditions cannot be met, development may take place only at the lowest density allowed for the area by the General Plan and LCP Land Use Plan.

(b) All primary and secondary roads shall meet the requirements of this section and shall be maintained through a County Service Area or a joint road maintenance agreement with all property owners of record.

(c) Location within the response time of 20 minutes from the fire station which is responsible for serving the parcel. Response time is defined as the length of time between the dispatch of ground fire vehicles from the fire station to their arrival at the location of the proposed structure(s). In areas exceeding 20 minutes response time, development may take place only at the lowest density allowed by the General Plan and LCP Land Use Plan.

(d) Locate the building site outside any designated Critical Fire Hazard Area and Very High Fire Hazard Severity Zone (VHFHSZ). If building sites cannot be located outside a Critical Fire Hazard Area and VHFHSZ, the following criteria shall be met:

(1)If the building site is served by a through access road or by secondary access, development may be approved only at the lowest density allowed by the General Plan and LCP Land Use Plan.

(2)If the parcel is on a dead-end access road and cannot develop secondary access, development may consist of only one single-family residence on the existing parcel of record; all land divisions must be denied.

(e) The project can meet the vegetation modification requirements called for by the fire code official, based upon an on-site inspection, including appropriate erosion control facilities. The homeowner must maintain this vegetation modification in order to assure long-term protection. Land clearing or vegetation modification shall be in conformance with the Erosion Control Ordinance of the Santa Cruz County Code, including obtaining a Land Clearing Approval, if required, and state timberland conversion regulations, if applicable.

(f) The project can meet and maintain the standards established by the fire code official for water supply and/or water storage for fire-fighting purposes.

6.5.8 Standards for New Dead End Roads

Prohibit newly constructed dead-end roads without secondary access serving more than one parcel in new minor land divisions or subdivisions which exceed the following distances from an adequate through road unless approved by the applicable fire protection agency, the

Department of Public Works, and by the Planning Commission; in no case shall a new dead-end road exceed ½ mile in length.
Urban & Suburban General Plan and LCP Land Use Plan designation 500'
Rural General Plan and LCP Land Use Plan designation 1000'
Mountain General Plan and LCP Land Use Plan designation 1500'

The standard for new subdivisions of 5 or more lots shall not exceed 500' unless recommended by the applicable fire protection agencies and the Department of Public Works, and approved by the Planning Commission.

6.5.9 Maintenance for Private Roads

Require the creation or expansion of County Service Areas (to provide road maintenance), road maintenance agreements or associations (deemed adequate to provide appropriate road maintenance) for all new private roads, and for land divisions in rural areas served by private roads.

6.5.10 (LCP) Certification of Adequate Fire Protection Prior to Permit Approval

Require all land divisions, multi-unit residential complexes, commercial and industrial complexes, public facilities and critical utilities to obtain certification from the appropriate fire protection agency that adequate fire protection is available, prior to permit approval.

6.5.11 (LCP) Public Facilities Within Critical Fire Hazard Areas

Discourage location of public facilities and critical utilities in Critical Fire Hazard Areas and Very High Fire Hazard Severity Zones. When unavoidable, special precautions shall be taken to ensure the safety and uninterrupted operation of these facilities.

6.5.12 (LCP) Consistency With Adopted Codes Required for New Development

Require all new development to be consistent with the California Fire Code, California Building Code, and other adopted County and local fire agency ordinance.

6.5.13 (LCP) Land Divisions Access Requirements

(a) Require all private roads used for either primary or secondary access to be maintained through road maintenance agreements and/or associations or through a County Service Area.
(b) Prohibit land divisions where any new building site is located more than ½ mile from a through road unless secondary access is provided.
(c) In the North Coast and Bonny Doon planning areas, prohibit new land divisions where any new building site is located more than ½ mile from a publicly maintained road even where secondary access is provided.

6.5.14 Fire Protection Standards for Land Divisions Inside the Urban Services Line

Require all new land divisions within the Urban Services Line to be consistent with the California Fire Code, California Building Code, and other adopted County and local fire agency ordinances.

Programs

a. Encourage fire protection agencies to enter into first alarm response and initiate contractual agreements in order to assure that the fire unit nearest the fire will respond on

first alarm to a fire emergency. (Responsibility: County Fire Marshal, Board of Supervisors, local fire protection agencies)

b. Newly constructed or approved public and private roads and streets must be identified by a name or number through a consistent countywide system, which provides for sequenced or patterned numbers and/or non-duplicating naming within the County. All signs shall be mounted and oriented in a uniform manner. This section does not require any entity to rename or renumber existing roads or streets. Nor shall a roadway providing access only to a single commercial or industrial occupancy require naming or numbering. (Responsibility: Planning Department, County Fire Marshal)

c. Define levels of fire protection services using criteria relating to distance from fire stations, density of development and magnitude of fire risk. (Responsibility: Board of Supervisors, local fire protection agencies)

d. Develop fuel break standards for new development to separate communities or clusters of structures from native vegetation. (Responsibility: County Fire Marshal, Board of Supervisors, and local fire protection agencies)

e. Develop an overall fuel break plan in Critical Fire Hazard Areas and implement the plan in conjunction with the CAL FIRE and fire protection agencies. (Responsibility: County Fire Marshal, local fire protection agencies, Office of Emergency Services)

f. Provide, to the maximum extent feasible, two emergency access routes for all communities, with at least one developed to County standards. (Responsibility: Board of Supervisors, Planning Department, Public Works)

g. Upgrade water distribution systems where deficient to ensure adequate peak load water supply requirements for fire protection within the service areas of recognized water purveyors. Priority shall be given to areas within the Urban Services Line. (Responsibility: Water Purveyors, County Fire Department, local fire protection agencies, County Office of Emergency Services)

h. Give priority to areas within the Urban Services Line when planning expansion of fire protection facilities and equipment. (Responsibility: fire protection agencies, Board of Supervisors)

i. Annually review the "Santa Cruz County Master Fire Plan" and the "Santa Cruz County Community Wildfire Protection Plan", and periodically update the plans as necessary. (Responsibility: CAL FIRE and Resource Conservation District)

j. Encourage CAL FIRE to provide land and air fire-fighting facilities and equipment adequate to meet estimated peak fire demands. (Responsibility: Board of Supervisors, County Fire Marshal)

k. Encourage fire protection agencies to establish educational fire prevention programs in order to have the public recognize their responsibility in preventing fires. (Responsibility: County Fire Marshal, local fire protection agencies, County Office of Emergency Services)

l. Review and update on a periodic basis the countywide Disaster Contingency Plan. Include the appropriate County agencies in all phases of disaster contingency planning. (Responsibility: Board of Supervisors, Office of Emengency Services)

(LCP) m. Update the Critical Fire Hazard Map as new site-specific information becomes available which more precisely defines these areas. (Responsibility: Planning Department, County Fire Department, CAL FIRE, local fire protection agencies)

n. Identify high fire risk areas within the Urban Services Line and rural areas with topography, hazardous fuels, structures, density similar to those found in the Oakland Hills fire of 1991. (Responsibility: Planning Department, County Fire Marshal, local fire protection agencies, Board of Supervisors)

(LCP) o. In cooperation with fire protection agencies, develop coordinated action programs to reduce the hazard to existing development in critical fire hazard areas such as the following:

(1) Assessment districts to finance road improvements and secondary access; water storage, distribution and hydrant facilities; purchase of pumper trucks and/or vegetation clearance and fire break construction.

(2) Fire hazard inspection and code enforcement.

(3) Public education programs on fire prevention.

(Responsibility: Planning Department, County Fire Marshal, local fire protection agencies, Board of Supervisors)

p. Amend and update the Santa Cruz County General Plan Safety Element, Fire Hazards section, as needed, to reflect fire code amendments. (Responsibility: Board of Supervisors, County Fire Marshal, local fire protection agencies, Planning Department)

HAZARDOUS AND TOXIC MATERIALS

Santa Cruz County government has played a leadership role in helping to minimize toxic hazards to the citizens and residents of Santa Cruz County. In 1984, the Board of Supervisors adopted as a statement of basic policy that it should be a statewide goal completely to eliminate the toxic contamination of any portion of the State's environment, including the land, water, and air resources of the State.

In June 1990, by adopting Measure C, the people of Santa Cruz County made a specific finding that "the introduction of toxic chemicals into all parts of the environment, in increasing quantities, has led to the pollution of the ocean, and of fresh water supplies, and to the presence of toxic chemicals in the tissues of virtually every living thing, placing the future of life on this planet in jeopardy." Measure C requires Santa Cruz County government to attempt to eliminate the use of toxic materials within Santa Cruz County where possible, and requires the reduction, recycling, and reuse of such materials, to the greatest extent possible, where complete elimination of their use is not feasible.

This section of the General Plan and LCP Land Use Plan states the basic objectives of Santa Cruz County with respect to hazardous and toxic materials, and also includes provisions relating to hazardous waste management. The provisions relating to hazardous waste management are a summary of the facilities siting provisions of the Santa Cruz County Hazardous Waste Management Plan (CHWMP), required by State law. Additional background information and more detailed policies, programs, and technical data are included in the County's Hazardous Waste Management Plan.

Objective 6.6 Hazardous and Toxic Materials

To eliminate, to the greatest degree possible, the use of hazardous and toxic materials, and where it is not feasible completely to eliminate the use of such materials, then to minimize the reduction in the use of such materials, so as to ensure that such materials will not contaminate any portion of the County's environment, including the land, water, and air resources of the County.

Policies

6.6.1 Hazardous Materials Ordinance

Maintain the County's Hazardous Materials ordinance, placing on users of hazardous and toxic materials the obligation to eliminate or minimize the use of such materials whenever possible, and in all cases to minimize the release, emission, or discharge of hazardous materials to the environment, and properly to handle all hazardous materials and to disclose their whereabouts. Further, maintain the County's ordinance relating to ozone-depleting compounds. Ensure that any amendment of existing ordinance provisions is based on a finding that the amendments will provide protection to the environment and the community against toxic hazards that is equal to or stronger than the existing provisions.

6.6.2 County Use of Toxic/Hazardous Materials

Eliminate wherever possible, and minimize where elimination is not feasible, the use of hazardous and toxic materials in the operations and programs of County government.

6.6.3 Maintenance of Standards for Use and Control

Ensure that Santa Cruz County maintains standards for the use and control of hazardous materials which are at least equal in their protection for the environment and the community to measures imposed by other local governments within Santa Cruz County, and in adjoining counties.

Programs

a. Require an annual report by County departments on departmental efforts to eliminate and reduce the use of toxic materials in County operations. (Responsibility: each County department, County Administrative Office, Board of Supervisors)

b. Enact an ordinance regulating the storage, transportation, and use of toxic gases, with standards at least as protective as those found in comparable ordinances adopted by local governments within Santa Clara County. (Responsibility: Environmental Health, Planning Department, County Office of Emergency Services, Board of Supervisors)

c. Implement, where funding can be made available, programs to provide assistance to businesses, farmers, and homeowners, to assist them in eliminating and reducing the use of toxic materials. (Responsibility: Environmental Health, Planning Department, Agricultural Commissioner, County Administrative Office)

d. Continue County programs facilitating the safe disposal of household hazardous wastes. (Responsibility: Public Works)

HAZARDOUS WASTE MANAGEMENT

The Hazardous Waste Management section is a summary of the facilities siting provisions of the Santa Cruz County Hazardous Waste Management Plan (CHWMP), required by state law. Additional background information and more detailed policies, programs and technical data are included in the CHWMP. The intent of this section is to restate the substantive provision, relating to hazardous waste management facilities siting of the CHWMP. If any portion of this section appears to conflict with the County Hazardous Waste Management Plan, the County Hazardous Waste Management Plan shall prevail.

Objective 6.7 Hazardous Waste Management

To ensure that hazardous waste management facilities will be safely sited to protect public health and the environment, and to ensure the general management of hazardous waste through the year 2000 occurs in accordance with the implementation policies specified in the Santa Cruz County Hazardous Waste Management Plan, and any applicable state and federal regulations.

ALL FACILITIES WHICH COLLECT, HANDLE, TRANSPORT, TREAT, STORE OR DISPOSE OF HAZARDOUS WASTE

Policies

6.7.1 Managing the County's Fair Share of Hazardous Waste
Any proposed facility shall be consistent with the fair share principle, and with any inter-jurisdictional agreements on hazardous waste management entered into by Santa Cruz County.

6.7.2 Sizing Facilities
Facilities shall be designed and sized primarily to meet the hazardous waste management needs of this County, or to meet any broader future commitments made as part of an inter-jurisdictional agreement, or upon a determination of the local body that the project meets local planning criteria and serves public needs.

6.7.3 Location of Facilities
Require any proposed hazardous waste management facility to be located only in those general areas identified in the Hazardous Waste Management Plan.

6.7.4 Conformance to Federal, State and Local Siting Standards
Require all hazardous waste land disposal facilities to conform to the siting standards contained in state statues as well as conform to the General Plan and LCP Land Use Plan and Zoning ordinances of the County of Santa Cruz.

6.7.5 Floodplains and Sensitive Habitats
Prohibit any facility to be located within a floodplain or area which could adversely impact any sensitive habitat.

6.7.6 Depth to Groundwater

Require a minimum 20 foot distance between any hazardous waste facility and the highest anticipated elevation of the underlying groundwater. Proposed sites must be elevated for this criteria by a registered geologist before permitting.

6.7.7 Mineral Resources Areas

Allow facilities to be sited only where they will not preclude extraction of minerals necessary to sustain the economy of the state.

6.7.8 Non-Attainment Air Areas (Federal Clean Air Act)

Allow facilities to be sited within federally designated Non-Attainment Air Areas only under the following conditions:

(a) A risk assessment must be completed and shall consider physical and chemical characteristics of the specific types of wastes that will be handled and design features of the facility. The assessment must show that emissions will not significantly contribute to non-attainment of standards;
(b) The emissions generated must be mitigated; and
(c) The emissions generated from such facilities shall not be greater than those associated with the transportation of hazardous waste outside of the non-attainment area.

6.7.9 Prime Agricultural Land

Demonstrate an overriding public service need before approving the siting of hazardous waste management facilities in commercial agricultural lands.

6.7.10 Distance From Residences

(a) Require a Risk Assessment for the siting of a hazardous waste management facility and a 500 foot minimum buffer zone from the nearest urban and suburban density residentially zoned areas. The risk assessment shall consider the physical and chemical characteristics of the specific type of waste(s) that will be handled and any design feature necessary for the facility.
(b) Require any facility handling ignitable, volatile or reactive wastes to be sited a minimum of 2000 feet from the nearest residence unless the developer can show that the public is sufficiently safeguarded in the event of an accident.

6.7.11 Distance from Immobile Populations

(a) Require a Risk Assessment for the siting of a hazardous waste management facility and a 500 foot minimum buffer zone from an immobile population, which includes places where large numbers of people may gather and also includes schools, hospitals, convalescent homes, prisons, facilities for the mentally ill, or similar places. The risk assessment shall consider the physical and chemical characteristics of the specific type of waste(s) that will be handled and any design feature necessary for the facility.
(b) Require any facility handling ignitable, volatile or reactive wastes proposed to be sited within one mile of an immobile population, to prepare, at the developer's expense, a study detailing the maximum credible accident from a facility's operation.

6.7.12 Emergency Response/Safe Transportation Routes

Locate facilities of any type so as to minimize distances to major transportation services. Locate all facilities in areas where the fire departments are trained to respond to hazardous materials accidents. Road networks leading to major transportation routes should not pass

through residential neighborhoods, should minimize residential frontages in other areas, and shall be demonstrated to be safe with regard to road design and construction, weight allowances, accident rates, excess traffic, etc.

6.7.13 Public Services
Limit all facility types to sites where public water and sewer and emergency facilities are available, except for existing landfill sites.

TRANSFER STATIONS FOR HOUSEHOLD AND SMALL QUANTITY BUSINESS GENERATORS

Existing and projected hazardous waste generation rates identified in the Santa Cruz County Hazardous Waste Management Plan indicate a need only for local collection and temporary storage (transfer) facilities to receive hazardous waste from household and small quantity (business) generators. Any and all such facilities sited in the unincorporated area of Santa Cruz County shall be subject to the following siting policies.

Policies

6.7.14 Require Environmental Review
Require proposed facilities to follow the Environmental Review procedures of the County. At a minimum, projects shall be reviewed for their susceptibility to natural hazards, including seismic and slope stability; and reviewed for their impacts to natural resources including groundwater and Water Supply Watersheds. Consider approval of such facilities only when a risk assessment is performed which indicates that the risks can be made acceptable through proper engineering and appropriate conditions are included as part of the design and construction of the facility.

6.7.15 Permeable Stratas and Soils
Require all above-ground facilities to have engineered structural design features, common to other types of industrial facilities, including spill containment and monitoring devices.

6.7.16 PSD Area (Prevention of Significant Deterioration Areas)
Permit these facilities to be sited in PSD Areas, as defined in the Hazardous Waste Management Plan, only if they are necessary to handle potentially hazardous wastes generated by visitors or residents in recreational or cultural facility areas which are in the PSD zone. PSD areas meet the ambient air standards of the Clean Air Act, and thus should be prevented from significant deterioration.

6.7.17 Proximity to Waste Generators
Locate household hazardous waste collection facilities close to residential and/or commercial zoned areas to encourage their use.

6.7.18 Recreational, Historic, Cultural and Scenic Areas
Allow household hazardous waste management facilities to be located in areas of recreational, historic, cultural or scenic resources only to the extent that they are necessary to handle hazardous wastes generated by visitors, workers or residents in these areas.

TREATMENT /STORAGE DISPOSAL FACILITIES FOR INDUSTRIAL GENERATORS

Existing and projected hazardous waste generation rates identified in the Santa Cruz County Hazardous Waste Management Plan do not indicate a need for local treatment, storage or disposal facilities for industrial generators within Santa Cruz County. The existing and projected needs for treatment, storage and disposal of hazardous wastes can continue to be met by out-of-County facilities. Therefore no industrial treatment, storage or disposal facility will be allowed within Santa Cruz County, unless at some future time a need can be demonstrated as determined by the Board of Supervisors. Upon such a determination, the following siting policies shall apply.

Policies

6.7.19 Seismic Hazards
Prohibit facilities of any type to be built in zones of potential surface rupture faulting, areas of high liquefaction potential, and areas most susceptible to landslides (slopes greater than 15%).

6.7.20 Slope Stability
Prohibit facilities of any type to be built in zones of slope instability. These areas include slopes greater than 30% and areas subject to liquefaction and subsidence due to natural and man-made causes.

6.7.21 Groundwater Resources
Prohibit facilities of any type to be built in areas which are known or suspected to be a sole source aquifer or principal aquifer recharge area for a region.

6.7.22 Water Supply Watersheds
Prohibit facilities of any type to be built in areas which are known or suspected to be a Water Supply Watershed area.

6.7.23 Permeable Stratums and Soils
Exclude these facilities unless they are immediately underlain by geologic materials with a permeability of not more than 1 x 10 to the seventh power cm/second, and thick enough to prevent vertical movement of fluid to groundwater.

6.7.24 Prevention of Significant Deterioation (PSD) Areas
Consider and, if appropriate, conditionally approve, facilities in PSD areas, unless an analysis shows that air emissions cannot be adequately mitigated. These are areas which meet the ambient air standards of the Clean Air Act, and thus should be prevented from significant deterioration.

6.7.25 Coastal Zone
(LCP) Prohibit hazardous waste treatment/storage/disposal facilities of any type to be built in the areas of the Coastal Zone.

6.7.26 Recreational, Cultural or Scenic Areas

Prohibit industrial hazardous waste management facilities in areas of historic preservation and other cultural or scenic areas, as defined by the Santa Cruz County General Plan and LCP Land Use Plan.

6.7.27 Proximity to Waste Generators

Locate industrial hazardous waste collection facilities close to Large Quantity Generator (LOG) sources to minimize the risk of transportation.

Programs

a. Update the County Hazardous Waste Management Plan a minimum of every three years for compliance with State and federal regulations. (Responsibility: Environmental Health, Planning Department, Board of Supervisors)

b. Identify the types of treatment, storage and disposal facilities needed in Santa Cruz County, identify general areas where such facilities can be located, and, where appropriate, develop agreements with other counties to handle hazardous wastes produced in Santa Cruz County. (Responsibility: Environmental Health, Planning Department, Public Works, Board of Supervisors)

ELECTRIC AND MAGNETIC FIELD EXPOSURE HAZARDS

A number of studies have examined the potential for risk to human health that may exist due to long term exposure to electric or magnetic fields found adjacent to electric powerlines. Some of these studies have found a potential for risk to human health. Siting of sensitive land uses (such as schools) and housing next to powerlines may, therefore, have an environmental health impact on users of the sensitive land uses and the residents of such housing.

ELECTRIC AND MAGNETIC FIELDS

In Santa Cruz County electric power is transferred from power generating stations to substations by means of 115,000-volt transmission lines. Substations are used to "step down" the electricity's voltage to facilitate the transfer from transmission to distribution lines. Distribution lines bring electricity from substations into neighborhoods. In Santa Cruz County, distribution lines operate at voltages from 4,000 to 21,000 volts. A magnetic field measured in units of milligauss, and an electric field, measured in volts per meter, found in the vicinity of these powerlines, and commonly called together the electromagnetic field, are a consequence of the delivery of the electric power. These fields fall off rapidly in strength with increased distance from the powerlines.

The strength of a magnetic field at a given site depends on several factors such as how many conductors are carrying the electric current, their spacing, and height above the ground. The magnetic field will also be proportional to the value of electric current being carried, which varies with electric power demand by time of day, day of week, season of the year, and changes over the years due to growth. Furthermore, the magnetic field also varies with height, so that the magnetic field in a second story bedroom could be substantially larger than the magnetic field found three feet off the ground in a first story living room. This is a consequence of getting closer to the current carrying conductors with increase in structure height or even change in ground height. The value of the magnetic field is essentially independent of the powerline voltage.

In contrast to the magnetic field, the electric field from powerline does not depend on the current being carried, but it dependent on the voltage of the line. The higher the line voltage the higher will be the electric field magnitude around the line. The value of the electric field will also be drastically modified by objects in the field. For example, the presence of housing, trees, shrubs, and people will markedly change the electric field value at a given location.

Measurements of the existing electric and magnetic fields across a given site, and at a given time, are easily made and may be available at no cost from local utilities. Estimates of the fields expected can also be obtained from existing computer programs, but would be based on assuming ideal conditions, such as parallel lines with no sag and level ground.

A typical 115,000-volt transmission powerline would have a magnetic field of 25 to 40 milligauss directly under the powerline at a height of three feet. The magnetic field would decrease with distance from the powerline and would drop off to a level of 1.5 milligauss at a distance of about 150 feet from the powerline, at the same three foot height.

The same 115,000-volt transmission powerline might have an electric field of 1,000 volts per meter directly under the powerline and the electric field would drop to 50 volts per meter at a distance of somewhere between 100 and 200 feet from the powerline. Any objects in the vicinity of the powerline would drastically change these electric field values.

Numerous studies have suggested a potential for adverse health effects due to long term exposure to electric and magnetic fields, such as found near powerlines. The siting of housing, or other habitable structures, such as schools, near powerlines will increase the electric and magnetic field exposure to future residents above the background levels and may thus increase the risk of disease.

LIMITING ELECTRIC AND MAGNETIC FIELD EXPOSURE

Due to the potential for adverse health effects a practice of "prudent avoidance" is recommended. Prudent avoidance means limiting exposures that can be avoided with relatively small investments of money or effort and generally includes increasing the distance and decreasing the time of exposure between people and sources of electric and magnetic fields.

There are no national standards or regulations specifically for powerline magnetic fields. Some local attempts at regulation have, however, been made to date. California has not established any limitations for siting homes near powerlines, although some guidelines are currently being used for school sites near transmission powerlines. The School Facilities Planning Division requires that no new schools be sited 100 feet from the edge of the right-of-way of 100,000-to-110,000-volt lines; 150 feet from 220,000-to-230,000- volt lines; and 250 feet from 345,000-volt lines.

There are generally three approaches to mitigating adverse impacts from electric and magnetic fields. The first typically involves site planning techniques to set habitable structures back from sources of electric and magnetic fields and thereby avoid hazardous doses. The second is to use engineering solutions, such as reconfiguring the powerlines, to mitigate electric and magnetic fields. The third, more difficult (and costly) approach involves placing powerlines underground and removing constraints to site development by significantly diminishing the magnetic field strength or completely eliminating the electric field, thus reducing the potential health hazard.

1. **Site Planning**
   With a transmission or distribution powerline crossing a subdivision site, the subdivision could be designed to set habitable buildings back from the powerlines, in a manner consistent with the current state of scientific knowledge.

2. **Undergrounding the Powerline**
   It is possible substantially to reduce the electric and magnetic fields by undergrounding the powerlines in a metallic pipe. The electric field would be esentially eliminated by the shielding of the metallic pipe and the magnetic field could be considerably reduced because the conductors are placed closer together causing the magnetic fields from the individual conductors to partially cancel each other.

3. **Reconfiguring the Powerlines**
   The number of conductors in a transmission or distribution powerline can be increased and their current fed (phased) in ways to achieve significant cancellation of the electric and magnetic fields near the ground. The techniques to considerably lower the fringing electric and magnetic fields around powerlines are known at this time. In addition there is considerable research effort underway in this area.

Objective 6.8a Electric and Magnetic Energy

To protect the public from potential health hazards associated with electric and magnetic fields based on the then current state of scientific knowledge through appropriate limitations on the use and development of land near electric transmission and distribution powerlines and substations which could create health hazards.

Objective 6.8b New Electrical Facilities

The planning, siting, and construction of future electrical facilities should minimize electric and magnetic fields near sensitive areas (for example schools, hospitals, playgrounds), residential uses, existing areas of high electric and magnetic exposure, and areas of future development.

Policies

6.8.1 Prudent Avoidance

In regard to exposure of electric and magnetic fields, the policy of the County of Santa Cruz is one of "prudent avoidance." Prudent avoidance assumes that exposure to electric and magnetic fields may present a health risk. The policies in this section shall apply to residential land divisions or other new discretionary development and other sensitive land uses, not including development of one single-family dwelling on an existing lot of record.

6.8.2 Measuring Ambient Magnetic Fields

Require the measurement of the ambient magnetic fields for all residential land divisions or other new discretionary development (not including development of one single-family dwelling on an existing lot of record) where such property is within 150 feet of 21 kv or greater transmission or distribution powerlines of the electric power delivery system. The measurements should delineate the area on the site where the magnetic field is above the level at which potential health effects may exist, based on the then current state of scientific knowledge.

6.8.3 Development Mitigation Measures

Utilize the following techniques to minimize exposure to potentially hazardous electric and magnetic fields from electric powerlines.

(a) Site Planning – Locate and/or cluster habitable building envelopes away from the potentially hazardous electric and magnetic fields consistent with the current state of scientific knowledge.

(b) Underground the Powerline – Reduce the electric and magnetic fields by undergrounding powerlines in a metallic pipe or other appropriate insulator.

(c) Reconfigure the Powerline – Reconfigure lines and conductors in transmission or distribution lines to achieve significant cancellation of the electric and magnetic fields near the ground.

6.8.4 New Transmission and Distribution Facilities

The siting of new transmission and distribution powerlines and substations shall minimize electric and magnetic fields near existing sensitive areas, residential uses, existing areas of high electric and magnetic field exposure, and areas of future development. Public exposure to electric and magnetic fields shall not be increased where practical alternatives exist.

Programs

a. Work with PG&E and other relevant private and public organizations to maintain EMF informational handouts and reference lists for public education. (Responsibility: Planning Department, Board of Supervisors)

b. Identify those areas where a potential hazard from exposure to electric and magnetic fields exist by mapping the location of the transmission lines, distribution lines, and substations in the County. (Responsibility: Planning Department)

Exhibit D

General Plan and Local Coastal Program

Chapter 9

Noise Element

Chapter 9

NOISE

- CURRENT NOISE ENVIRONMENT
- NOISE SENSITIVE LAND USES
- NOISE EVALUATION AND MEASUREMENT
- PUBLIC INFORMATION
- LAND USE
- GROUND TRANSPORTATION
- AIR TRANSPORTATION

CONTENTS

Language identified with (LCP) is not restricted to the Coastal Zone; language which includes the (LCP) initials is part of the Local Coastal Program and applies countywide unless specifically stated that the policy, etc. is limited to the coastal zone.

Exhibit D

AUTHORITY AND PURPOSE

The Noise Element is a planning document that provides a policy framework for addressing noise impacts encountered in the land use planning process. This chapter is intended to provide ways to reduce noise conflicts related to noise, and to achieve noise compatibility between land uses.

The requirements for a Noise Element are established by state planning law (Section 65302 (f)) as follows:

"A noise element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(1) Highways and freeways.

(2) Primary arterials and major local streets.

(3) Passenger and freight online railroad operations and ground rapid transit systems.

(4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(5) Local industrial plants, including, but not limited to, railroad classification yards.

(6) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment."

Current Noise Environment

Transportation Related Noise

Ambient noise levels vary throughout unincorporated Santa Cruz County, and differ between urban and rural settings. Noise sources are primarily associated with transportation facilities, such as noise in the vicinity of major roadways, airports and railroads. Sensitive land uses include residences, hotels/motels and other forms of transient lodging, schools, libraries, churches, hospitals and nursing homes.

The primary factors that determine roadway noise levels are traffic volume, the percentage of trucks and buses, average vehicle speed and the presence of noise attenuation features such as soundwalls, topography, and landscaping. An increase in traffic volumes means a comparable increase in sound energy. For example, ten times as many vehicles per hour would result in a tenfold increase in sound energy, creating a 10 dB increase and a perceived doubling of loudness.

Noise associated with railroad operations is caused by diesel engines, switching operations and whistles. Generally, trains operate at low speeds through urban areas as a safety precaution, and noise levels are lower at lower speeds. Switching operations usually occur at stations or depots. Whistles are blown in advance of at-grade crossings.

Noise associated with airport operations is caused by flyovers, takeoffs and landings from air carrier, business, and private aircraft operations. Noise levels exceeding 75 dB are experienced beneath the flight paths of commercial airports (SCCRTC 2005).

Non-transportation Related Noise

Non-transportation-related noise generators are commonly called "stationary," "fixed," "area," or "point" sources of noise. Industrial processing, mechanical equipment, pumping stations, and heating, ventilating, and air conditioning (HVAC) equipment are examples of fixed location, non-transportation noise sources within the County of Santa Cruz. Some non-transportation sources are not stationary but are typically assessed as point or area sources due to the limited area in which they operate, such as truck deliveries, agricultural field machinery, and mining equipment.

Noise generated by industrial and commercial operations, maintenance, manufacturing, truck traffic (loading docks), and warehousing can affect surrounding noise sensitive land uses. Noise perceived as disruptive by residents in proximity to existing agricultural operations may result from the operation of agricultural machinery in the evening or early morning hours. In addition, operation of exterior exhaust and cooling system equipment typically used in greenhouse operations can be a source of noise that may affect surrounding land uses.

Extractive (mining) operations typically involve a range of noise-generating equipment, operations, and sometimes include blasting noise. Heavy equipment used in quarry and mining activities and blasting operations may generate noise levels that are incompatible with surrounding land uses. Off-site noise associated with the transportation of materials to and from the mining facility may also be generated.

Some noise-generating activities such as blasting or pile-driving as part of mining or construction operations may also result in excessive levels of ground-borne vibration that may affect nearby land uses.

Intermittent or temporary neighborhood noise from amplified music, public address systems, barking dogs, landscape maintenance, stand-by power generators, and construction activities may be disturbing to residents but are difficult to attenuate and control.

Noise Sensitive Land Uses

Noise sensitive land uses (sensitive receptors) include areas where an excessive noise would interfere with normal activities. Noise-sensitive land uses in the County include residences, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and parks.

Noise Evaluation and Measurement

Quantification of Noise Levels

Noise is commonly defined as unwanted sound. Sound is measured and quantified using a logarithmic ratio of pressures, which gives the level of sound in decibels (dB). To account for the pitch of sounds and the corresponding sensitivity of human hearing to pitch, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA).

A given noise may be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, the time of day during which the noise is experienced, and the activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep may be disturbed. In consideration of these factors, various measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. For example, some indices characterize the 24-hour noise environment of a location by using a weighted average to estimate habitability on a long term basis. Other measures consider portions of the day and evaluate the nearby activities affected by noise as well as the noise sources. The most commonly used indices for measuring community noise levels are the Equivalent Energy Level (Leq), the Community Noise Equivalent Level (CNEL) and Day-Night Level (L_{dn}).

- *Leq*, the Equivalent Energy Level, is the average acoustical or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. It is the decibel sound level that contains an equal amount of energy as a fluctuating sound level over a given period of time.
- *CNEL*, Community Noise Equivalent Level, is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +4.77 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.
- L_{dn}, Day-Night Level, is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. L_{dn} and CNEL values rarely differ by more than 1 dB.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA every time the distance between the source and listener is doubled. Sound that originates from a linear source such as a transportation corridor, attenuates by approximately 3 dBA per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise. Noise from roadways

in environments with major ground effects due to vegetation and loose soils may either absorb or scatter the sound yielding attenuation rates as high as 4.5 dBA for each doubling of distance. Other contributing factors that affect sound reception include meteorological conditions and the presence of obstacles such as buildings and sound barriers.

Community noise environments are typically represented by noise levels measured for brief periods throughout the day and night, or during a 24-hour period (i.e., by L_{dn} or CNEL). The one-hour period is especially useful for characterizing noise caused by short-term events, such as operation of construction equipment or concert noise (i.e., with Leq). Community noise levels are generally perceived as quiet when the CNEL is below 50 dBA, moderate in the 50 to 60 dBA range, and loud above 60 dBA. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA (Source, Caltrans 2009, Technical Noise Supplement).

Noise Effects

Noise has a significant effect on quality of life. An individual's reaction to a particular noise depends on many factors such as the source of the noise, its loudness relative to the background noise level, and the time of day. Reaction to noise is highly subjective; the perceived effect of a particular noise can vary widely. Because of the nature of the human ear, a sound must be about ten dB greater than the reference sound to be judged as twice as loud. In general, a three dB change in community noise levels can be perceived, while one to two dB changes generally are not perceived. Although the reaction to noise varies, it is clear that excessively noisy conditions can affect an individual's health and well-being. Though effects of noise are often transitory, adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise can be organized into six broad categories: noise-induced hearing loss; interference with communication; effects on sleep; effects on performance and behavior; extra-auditory health effects; and annoyance.

Noise Standards

Noise exposure criteria are incorporated into land use planning to reduce conflicts between activities that generate noise and surrounding land uses. This is achieved by specifying acceptable noise exposure ranges for various land uses (Table 9-3, "Acceptable through Unacceptable Ranges of Noise Exposure by Land Use Category) and by limiting noise that may be generated by stationary sources (Table 9-4, "Maximum Allowable Noise Generation by Stationary Sources").

Table 9-2 indicates ranges of compatibility so that standards are flexible enough to apply to a range of projects and environments.

A land use located in an area identified as "normally acceptable" indicates that standard construction methods will attenuate exterior noise to an acceptable indoor noise level and that people can carry out outdoor activities with minimal noise interference. Land uses that fall into the "conditionally acceptable" noise environment should have an acoustical study that considers the type of noise source, the sensitivity of the noise receptor, and the degree to which the noise source may interfere with sleep, speech, or other activities characteristic of the land use. Noise reduction requirements may include noise insulation, or conventional construction with closed windows and fresh air supply systems or air conditioning. New construction or development should generally be discouraged for land uses that fall into the "normally unacceptable" noise environment. A detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design, if new construction or development does proceed. For land uses where the exterior noise levels fall within the "clearly unacceptable" range, new construction generally should not be undertaken.

The maximum allowable exterior noise that may be generated by a stationary noise source is given in Table 9-4, Maximum Allowable Noise Generation by a Stationary Noise Source. Stationary noise sources typically include commercial and industrial land uses. The primary noise sources associated with these facilities include delivery trucks, air compressors, and generators. Noise standards for proposed stationary noise sources are applied at the property line of nearby "receiving" land uses rather than at the property line of the source parcel.

Normalization Factors for Calculating Noise Exposure from Significant Noise Generating Uses

A long-standing method of refining acceptable noise levels is the concept of "normalization."

Normalization is a valuable tool for establishing appropriate noise exposure limits for new noise-sensitive development in the vicinity of an airport or other substantial noise source. The normalization procedure takes into account four categories of correction or normalization factors associated with the noise source and the characteristics of the affected community (Table 9-3):

- Seasonal variations in noise source levels;
- Existing outdoor ambient noise level in the community;
- Previous exposure to, and attitudes toward, the noise; and
- Whether the noise includes pure tones or impulsive characteristics.

When it is possible to evaluate some or all of these factors, the measured or calculated noise exposure values may be adjusted by means of the correction in order to more accurately assess the locally acceptable noise exposure. The two examples provided in Table 9-1 illustrate the use of normalization in airport land use compatibility planning.

SUMMARY OF THE ELEMENT

The goals, objectives, policies and programs of this chapter are intended to protect the community from noise hazards and to reduce noise conflicts between land uses. This section includes policies relating to Public Education, Land Use, Ground Transportation, and Air Transportation.

GOALS

- **Noise Hazards:** Protect the public from potentially harmful noise sources such as industrial facilities, automobiles, airplanes, motorcycles, construction, surface mining operations, chainsaws, off-road vehicles, loud music, and other noise sources, through prudent land use planning.
- **Land Use Compatibility:** Minimize noise related conflicts among land uses.
- **Protection of Noise Sensitive Uses:** Minimize exposure of noise sensitive land uses to excessive, unsafe, or disruptive noise.
- **Ground-borne Vibration:** Minimize exposure of sensitive land uses to the harmful effects of excessive ground-borne vibration.
- **Transportation-related Noise Generators:** Reduce noise generated by traffic, railroads, and airports to the extent feasible.
- **Non-transportation-related Noise Sources:** Minimize noise impacts from industrial, commercial, agricultural, extractive, and similar facilities on sensitive receptors.
- **Temporary and/or Nuisance Noise:** Minimize effects of intermittent, short-term, or other nuisance noise on noise sensitive land uses.

Table 9-1
Example of How Normalization Factors are Applied in Airport Land Use Compatibility Planning

An Airport in a quiet Rural Location		
Factor	**Characteristic Present in Community**	**Correction**
Seasonal Character of Noise	Year-round operation	0
Community Setting	Typical urban residential background noise levels	-10
Previous Community Exposure to Noise	Some exposure, but no control of noise	0
Noise Qualities	No pure tones or impulse characteristics	0
Under these assumptions, a total correction of minus 10 dB would be applied to the basic criterion of CNEL 65 dB. A community fitting these conditions therefore may find that a criterion of CNEL 55 dB should be set as the maximum acceptable noise exposure for new residential and other noise-sensitive land use development.		
Source: California Airport Land Use Planning Handbook, October 2011.		

NOISE REDUCTION OBJECTIVES

Objective 9.1 Public Information

To inform and assist the residents of Santa Cruz County in the meaning and use of this noise element.

Policies

9.1.1 Effects of Noise Exposure
Inform the residents of the County about the effects of exposure to excessive noise and the methods available for minimizing such exposure.

Programs

a. Inform the public of the general hazards of everyday noise, including the various sources inside and outside of the home, and disseminate consumer advice about hearing protection, products, and techniques. (Responsibility: Planning Department, Office of Consumer Affairs)

Objective 9.2 Land Use

To promote land uses which are compatible with each other and with the existing and future noise environment. Prevent new noise sources from increasing existing noise levels above acceptable standards and seek to eliminate or reduce noise from existing objectionable noise sources.

Policies

9.2.1 Land Use Compatibility Guidelines
Require new development to conform with the land use compatibility standards given in "Acceptable through Unacceptable Ranges of Noise Exposure by Land Use Category" (Table 9-2). All new residential and other noise sensitive land developments should conform to the noise exposure standards shown in Table 9-2 for outdoor noise and 45 dB (CNEL or L_{dn}) for indoor noise. New development that cannot be made to conform to these standards shall not be permitted. The noise contours depicted in Figure 9-1 shall be used in determining compliance with these standards for development in the vicinity of the Watsonville Municipal Airport.

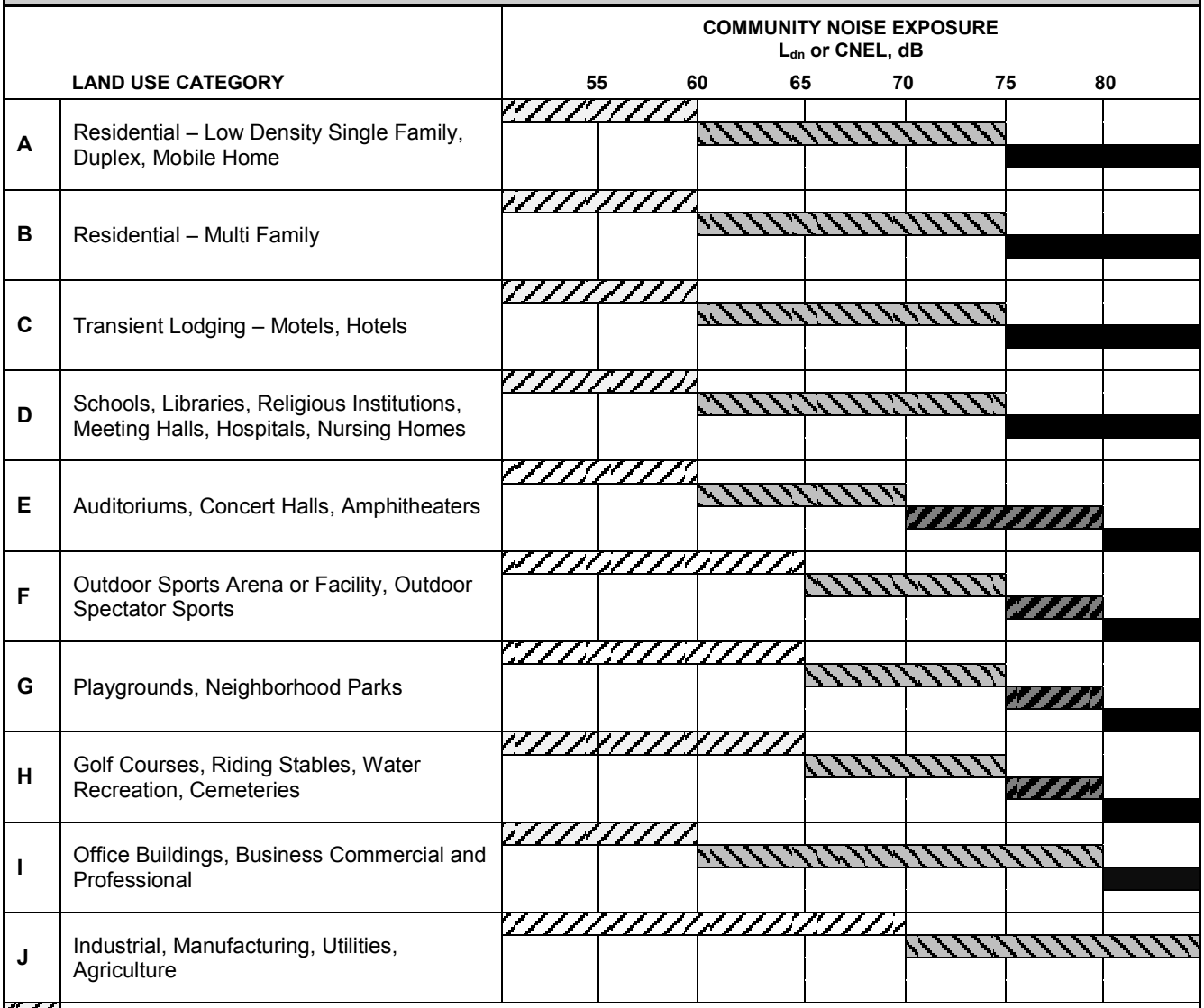
Assure a compatible noise environment for various land uses through site planning, building orientation and design, interior layout, and physical barriers, landscaping, and buffer areas where appropriate. The normalization factors listed in Table 9-3 may be used in determining compliance with the policies in the element.

9.2.2 Acoustical Studies
Require acoustical studies for all new residential and noise sensitive development with a future CNEL or L_{dn} noise exposure greater than or equal to 60 dB. The studies shall satisfy the requirements set forth in Title 24, Part 2 of the California Administrative Code, Noise Insulation Standards. Require acoustical studies for all new projects which may affect the existing noise levels and may not conform to the Land Use Compatibility Guidelines in Table 9-2. During preparation of acoustical studies, apply normalization factors as necessary and appropriate (Table 9-3; Normalization Factors for Calculating Noise Exposure).

9.2.3 Noise Sensitive Land Uses
Require new development of residential and other noise sensitive land uses, where existing stationary noise sources exceed the standards of Table 9-4, to incorporate effective mitigation measures to reduce noise exposure to or below the levels of Table 9-2.

Table 9-2
Acceptable through Unacceptable Ranges of Noise Exposure by Land Use Category*

**Outdoor noise exposure measured at the proposed development site*



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements, and can meet the indoor noise standard of 45 dB CNEL or L_{dn}.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice to meet the indoor noise standard of 45 dB CNEL or L_{dn}.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design to achieve the indoor standard of 45 dB CNEL or L_{dn}.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

Notes:
Ldn = Day/Night Average Sound Level
CNEL = Community Noise Equivalent Level
Source: Office of Planning and Research, California, General Plan Guidelines, October 2003.

9.2.4 Noise Management Strategies

The following noise mitigation strategies are preferable to construction of conventional masonry noise barriers where these strategies are a feasible option:

- Avoid placement of noise sensitive uses in noisy areas.
- Avoid placement of significant noise generators in noise sensitive areas.
- Increase setbacks between noise generators and noise sensitive uses.
- Orient buildings such that the noise sensitive portions of a project are shielded from noise sources.
- Use sound-attenuating architectural design and building features.
- Employ technologies that reduce noise generation such as alternative pavement materials on roadways, when appropriate.
- Employ traffic calming measures where appropriate.

Table 9-3
Normalization Factors for Calculating Noise Exposure[1]

Type of Correction	Description	Amount of Correction to be Added to Measured CNEL in dB
Seasonal Correction	• Summer (or year round operation) • Winter only (or windows always shut)	**0** **+5**
Correction for Outdoor Noise Level Measured in Absence of Intruding Noise	• Quiet suburban or rural community (remote from large cities and from industrial activity and trucking). • Quiet suburban or rural community (not located near industrial activity). • Urban residential community (not immediately adjacent to heavily traveled roads and industrial areas). • Noisy urban residential community (near relatively busy roads or industrial areas). • Very noisy urban residential community.	**-10** **-5** **0** **+5** **+10**
Correction for Previous Exposure and community Attitudes	• No prior experiences with the intruding noise. • Community has had some previous exposure to intruding noise but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise. • Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good. • Community aware that operation causing noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances.	**-5** **0** **+5** **+10**
Pure Tone or Impulse	• No pure tone or impulsive character. • Pure Tone or Impulsive Character present.	**0** **-5**

Notes:
1. With few exceptions, new noise sensitive land uses should not be allowed where current or projected airport related noise exceeds a CNEL of 65 dB.
Source: Based on State of California General Plan Guidelines, 2003.

9.2.5 Commercial and Industrial Development

For all new commercial and industrial developments that would increase noise levels above the maximum allowable standards as given in Table 9-4, the best available control technologies will be used to minimize noise levels. In no case shall noise generation exceed the maximum allowable noise level specified in Table 9-4 following mitigation.

9.2.6 Residential Development

Require that future residential development adjacent to the railroad tracks incorporate measures to meet maximum noise level exposure standards stated in the General Plan and LCP Land Use Plan.

9.2.7 Ground-borne Vibration

Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to ground-borne vibration from trains, construction equipment, and other sources.

9.2.8 Construction Noise

Require mitigation and/or best management practices to reduce construction noise as a condition of project approvals.

Table 9-4
Maximum Allowable Noise Generation by Stationary Noise Sources (1)

	Daytime (4) (7AM to 10PM)	Nighttime (3,4) (10PM to 7AM)
Hourly Leq – average hourly noise level, dB (2, 6)	50	45
Maximum level, dB (6)	70	65
Maximum Level dB – Impulsive Noise (5, 7)	65	60

Notes:

1. As measured at the property line of the sensitive receptor. The standards may also be applied on the receptor side of noise barriers or other noise mitigation structure to determine the effectiveness of noise mitigation.

   Noise-sensitive receptors typically include residential land uses, libraries, meeting halls, religious institutions, and hospitals, in addition to nursing homes or schools. Transient lodging establishments which are considered noise sensitive land uses include hotels and motels.
2. The sound equivalent level as measured or modeled for a one-hour sample period.
3. Applies only where the receiving land use operates or is occupied during nighttime hours.
4. Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels. Allowable levels shall be reduced 5 dB if the ambient hourly Leq is at least 10 dB lower than the allowable level.-
5. This level should not be exceeded for any length of time.
6. Sound level measurements shall be made with “slow” meter response.
7. Sound level measurements shall be made with “fast” meter response.

dB = decibel

Programs

a. Review the Ground Transportation Noise Contours when the Circulation Element is updated and the Airport Noise Contours when the Airport Master Plan is updated. (Responsibility: Planning Department, Planning Commission)

b. Work with cities, transit authorities, school districts, rest homes, hospitals, and commercial and industrial uses to mitigate existing noise problems. (Responsibility: Planning Department, Environmental Health)

c. Consider establishing a Noise Abatement section in the Environmental Health Services, the Planning Department or the Sheriff’s Department to facilitate enforcement of County noise control policies as

well as noise-related "nuisance" and "disturbing the peace" ordinances. (Responsibility: Board of Supervisors)

d. Enforce the Santa Cruz County Off-road Vehicle ordinance either through use of personnel or physical barriers. (Responsibility: Board of Supervisors, Sheriff's Department)

e. Consider amending chapter 8.3 of Volume I of the Santa Cruz County Code to limit the allowed hours of construction activities near residential areas. (Responsibility: Board of Supervisors)

f. Consider the development of a noise ordinance amending Chapter 8.30 of Volume I of the County Code to define acceptable noise levels at various land uses and to assist in enforcement when excessive noise levels have been reported. (Responsibility; Planning Department, Board of Supervisors, County Sheriff's Department)

Objective 9.3 Ground Transportation

To maintain or lower existing noise levels generated by roadway and railroad systems in order to reduce impacts on residential and other noise-sensitive land uses, to the extent feasible.

Policies

9.3.1 Support Alternative Modes of Transportation

Require new development to provide facilities that support the use of alternative transportation modes such as walking, bicycling, carpooling, and where applicable, transit to reduce peak hour traffic.

9.3.2 Evaluation and Mitigation

Evaluate and incorporate mitigation measures for any project that would cause significant degradation of the noise environment by exceeding the following thresholds:

(a) Increasing the CNEL or L_{dn} in existing residential areas by 5 dB or more, where the CNEL or L_{dn} will remain below 60 dB;

(b) Increasing the CNEL or L_{dn} in existing residential areas by 3 dB or more, causing the CNEL or L_{dn} to exceed 60 dB;

(c) Increasing the CNEL or L_{dn} in existing residential areas by 3 dB or more where the CNEL or L_{dn} currently exceeds 60 dB.

9.3.3 County Road Surfacing and Maintenance

Utilize the latest noise-reducing techniques for County road surfacing and maintenance.

9.3.4 Sirens and Horns

Limit the use of sirens and horns to the minimum necessary.

9.3.5 California Motor Vehicle Noise Standards

Promote the enforcement of California Motor Vehicle Noise Standards for cars, trucks, and motorcycles through coordination with the California Highway Patrol and local law enforcement as appropriate.

Programs

a. Transportation Demand Management: Expand demand management programs that decrease the number of vehicle miles traveled and result in mode shift. (Responsibility: Board of Supervisors, Regional Transportation Commission, Planning Department)

b. Work with and encourage the California Highway Patrol's existing noise abatement program and enforce existing California State Noise Emission Standards. Establish a Noise Abatement section in the County Sheriff's Department (including purchase of necessary equipment), in order to keep the

level of enforcement of State muffler laws within the County's control. (Responsibility: California Highway Patrol, County Sheriff's Department)

c. Support State legislation for noise abatement design measures in all State Highway projects within the County. (Responsibility: Board of Supervisors, Transportation Commission)

d. Analyze changes in street patterns with regard to attendant noise impacts and route and/or divert traffic in order to minimize noise impact upon sensitive land uses such as residences, hotels/motels hospitals, nursing homes, schools and parks. Trucks and automotive through traffic should utilize only designated truck and through routes. Neighborhoods should be protected from through traffic diversion techniques. (Responsibility: Planning Department, Public Works, Board of Supervisors)

e. Maintain and retrofit County vehicles to lower noise emission levels. Consider noise emission levels in the purchase of new vehicles. (Responsibility: General Services)

f. Coordinate with the Santa Cruz County Regional Transportation Commission to balance future rail service in the unincorporated area with programs to minimize and/or mitigates noise impacts to neighboring land uses. Establish train horn "quiet zones" along the rail corridor consistent with federal regulations (49 CFR Part 222), where applicable. Promote community programs for existing at-grade crossings by working with the Santa Cruz County Regional Transportation Commission and rail operators. (Responsibility: Regional Transportation Commission)

g. Work with Caltrans to landscape highway rights-of-way, create buffers such as berms, and install low noise pavement surfaces to mitigate state highway traffic noise. (Responsibility: Public Works, Planning Department)

h. Encourage the use of earthen berms, landscaping, setbacks, and architectural design as mitigation for noise where appropriate and effective, rather than conventional wall barriers. Incorporate a combination of walls and earthen berms and require the use of vegetation or other visual screening methods to soften the visual appearance of sound walls. (Responsibility: Planning Department, Public Works)

i. Designate local truck routes to reduce truck traffic in noise-sensitive land use areas. (Responsibility: Regional Transportation Commission, Public Works, Planning Department)

Objective 9.4 Air Transportation

To balance the need for aviation service in the County with the right to develop lands around the airports.

Policies

9.4.1 Airport Expansion

Require a development permit and environmental review for any new air strip or airport or any proposed expansion of air strips or airports over which the County has jurisdiction, including any increase in the number of flights which may increase the noise level of surrounding areas.

9.4.2 Restricting Residential Development

Limit single-family residential development to no more than one dwelling on an existing lot of record where the existing or future aircraft noise exceeds 65 CNEL or L_{dn} (see Figure 9-1).

9.4.3 Mitigation for Interior Noise

Require all discretionary residential development proposed within the 60 CNEL or L_{dn} aircraft noise contour (see Figure 9-1) to mitigate interior noise to 45 (CNEL or L_{dn}) or less, and to limit the maximum A-weighted noise level of single aircraft overflights to 50 dBA or less.

9.4.4 Coordination with City of Watsonville

Encourage the City of Watsonville to review and update noise contour measurements for Watsonville Airport periodically as aircraft operations increase or change in nature, and forward any new data to the County for its use.

Programs

a. Develop discretionary permit process to implement interim noise mitigation in new and reconstructed residential development.

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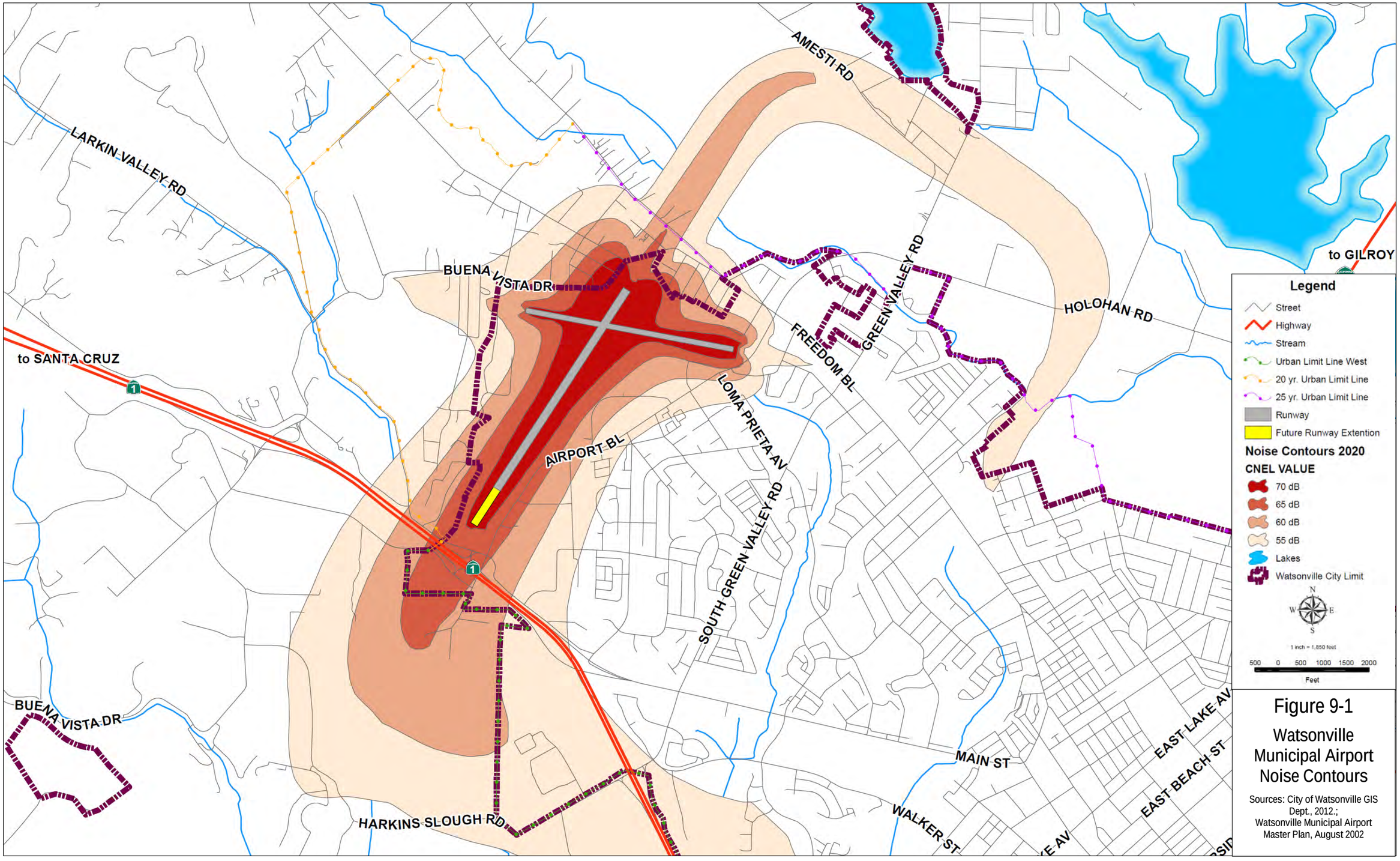

Figure 9-1

Watsonville Municipal Airport Noise Contours

Sources: City of Watsonville GIS Dept., 2012.;
Watsonville Municipal Airport Master Plan, August 2002

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Exhibit E

County Code Chapter 16.10
Geologic Hazards (clean)

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Chapter 16.10
GEOLOGIC HAZARDS

Sections:

Prior legislation: Ords. 4048 and 4149.

16.10.010 Purpose.

The purposes of this chapter are:

(A) Policy Implementation. To implement the policies of the 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 that potential buyers are notified of property located in an area of geologic hazard, and to assure that those who occupy areas of geologic hazard assume responsibility for their actions. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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(f), building permits, minor land divisions, and subdivisions throughout the County. These regulations and procedures shall be administered through a system of geologic hazard assessment, technical review, development and building permits. [Ord. 4518-C § 2, 1999; Ord. 3808 § 1, 1986; Ord. 3635 § 1, 1985; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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 geologic hazard regulations of this Chapter. [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 13.03 SCCC and shall be subject to approval by the California Coastal Commission. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [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. [Ord. 4518-C § 2, 1999].

16.10.040 Definitions.
For the purposes of this chapter, the following definitions apply:

(1) “Active fault” means a fault that has had surface displacement within Holocene time (about the last 11,000 years).

(2) “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.

(3) “Addition” means improvement to an existing structure that increases its 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.

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

(6) “Coastal Bluff” means (1) those bluffs, the toe of which is now or was historically (generally within the last 200 years) subject to marine erosion; and (2) those bluffs, the toe of which is not now or was not historically subject to marine erosion, but the toe of which lies within an area otherwise identified in Public Resources Code Section 30603(a)(1) or (a)(2).

(7) “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 steplike 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.

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

(9) “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.

(10) “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.

(11) “County geologist” means a County employee who is a California licensed Professional Geologist who has been authorized by the Planning Director to assist in the administration of this chapter, or a California licensed Professional Geologist under contract by the County who has been authorized by the Planning Director to assist in the administration of this chapter.

(12) “County geologic advisor” means an individual who is a California licensed Professional Geologist who may be employed by the County to provide geologic services.

(13) “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.

(14) Development/Development Activities. For the purposes of this chapter, 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:

(a) 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;

(b) Reconstruction: Modification, reconstruction or replacement of 65 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 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;

(c) 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;

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

(e) 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;

(f) 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;

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

(i) Posted "Limited Entry" or "Unsafe to Occupy" due to geologic hazards, or

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

(iii) Defined as a critical structure or facility;

(h) 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 16.20 SCCC;

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

(j) 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;

(k) Installation of a septic system;

(l) 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 (14)(a) through (k) of this section;

(m) 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 be determined by the Planning Director to constitute development for the purposes of geologic review.

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

(16) "Engineering geologist" means a registered geologist who is a professional geologist licensed with the California Board for Professional Engineers, Land Surveyors and Geologists and is competent in the field of engineering geology.

(17) "Fault zones" 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.

(18) "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.

(19) "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.

(20) "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.

(21) "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, ground cracking, and secondary seismic effects including liquefaction, landsliding, tsunami and ground shaking.

(22) "Geologic hazards assessment" means a summary of the possible geologic hazards present at a site conducted by the County Geologist or a California licensed Professional Geologist.

(23) "Geologic report, full" means a complete geologic investigation conducted by an engineering geologist hired by the applicant, and completed in accordance with the County geologic report guidelines.

(24) "Geotechnical investigation / report" means a report prepared by a soils (geotechnical) engineer, hired by the applicant, and completed in accordance with the requirements of this Chapter. This term is synonymous with the term "soils investigation" or "soils report."

(25) "Grading" means excavating or filling land, or a combination thereof.

(26) "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 include 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.

(27) "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.

(28) "

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

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

(31) “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.

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

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

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(34) “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.

(35) “Planning Director” means the Planning Director of the County of Santa Cruz or his or her designee.

(36) “Professional geologist” means a geologist who is licensed by the State of California to practice geology

(37) “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.

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

(39) “Shoreline or 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.

(40) “Soils (geotechnical) engineer” means a Professional Civil Engineer licensed in the State of California, experienced in the practice of soils and foundation engineering.

(41) “Soils investigation / report” means a report prepared by a soils (geotechnical) engineer hired by the applicant, and completed in accordance with the requirements of this Chapter. This term is synonymous with the term “geotechnical investigation.”

(42) Special Flood Hazard Area (SFHA). 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.

(43) "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.

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

16.10.050 Requirements for geologic and geotechnical assessment.

(A) All development is required to comply with the provisions of this chapter.(B) Hazard Assessment Required. A geologic hazards assessment shall be required for all development activities in the following designated areas: fault zones, sites with suspected instability, and coastal hazard areas, except: as specified in subsections (D) (E) and (F) of this section, where a full geologic report will be prepared according to the County guidelines for engineering geologic reports.The County Geologist may waive the requirement for a hazard assessment based upon a determintation 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 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 which are located in an area of geologic hazards as identified by the County Geologist;

(E) Potential Liquefaction Area. A site-specific soil investigation (with input from an engineering geologist, when required by civil engineering staff or the County Geologist) shall be required for all development applications for more than four residential units, 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.

(F) 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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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 and before any discretionary, 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) Geologic Hazards Assessment Preparation. The geologic hazards assessment shall be prepared by County staff. Alternately, the assessment may be conducted by a private professional geologist at the applicant's choice and expense. Such privately prepared assessments shall, however, be subject to review and acceptance as specified in this section.(C) Report Acceptance. All geologic, soils, engineering, and hydrologic reports or investigations submitted to the County as a part of any development application shall be found 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. Geotechnical and geologic reports shall remain 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. 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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

16.10.070 Permit conditions.

The recommendations of the geologic hazards assessment, full geologic report, and/or the recommendations of other technical reports (if reviewed and 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) 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 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 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 and Acknowledgement of Geologic Hazards with the County Recorder. The notice shall include a description of the hazards on the parcel, the level of geologic and/or geotechnical investigation conducted, the mitigations (if any) that were

required to reduce the geologic hazards to an acceptable level, assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

(4) 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.

(C) 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.

(D) 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 and Acknowledgement of Geologic 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 and Acknowledgement of Geologic Hazards with the County Recorder. The notice shall include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted, and the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties..

(E) 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 civil engineer and reviewed by both the engineering geologist (if required by the County Geologist) and soils engineer. Such plans shall be reviewed and 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.

(7) Notice of and Acknowledgement of Geologic Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required to record a Notice and Acknowledgement 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, and the mitigations (if any) that were required to reduce geologic

hazards to an acceptable level, and assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

(8) 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.

(F) Floodplains.

The provisions of Chapter 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.

(G) 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) 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 assumed 100-year lifetime of the structure, as determined through geologic, geotechnical, hydrologic, or other engineering reports. The setback shall be evaluated considering not only historical shoreline and bluff retreat data, but also acceleration of shoreline and bluff retreat due to sea level rise. Continued and accelerated sea level rise totaling three feet over the 100-year lifetime of the structure shall be used in the setback evaluation.

(b) Within the Urban or Rural Services Line the determination of the minimum 100 year setback may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. Protection measures installed under an emergency permit shall not be factored into the setback calculation until a regular Coastal Development Permit is issued and all conditions of the permit are met. Outside the Urban or Rural Services Line the determination of the minimum 100 year setback shall not take into consideration the effect of any existing or proposed shoreline or coastal bluff protection measure.

(c) On lots with legally established shoreline or coastal bluff protection measures, the required analysis under subsection (a) shall consider the condition of the existing shoreline or coastal bluff protection measure; and identify any impacts the protection measure may be having on public access and recreation, scenic views, sand supply and other coastal resources. The analysis must also identify any benefits the protection measure may provide, including but not limited to, public access, and protection of public roads and infrastructure. The analysis must evaluate opportunities to modify or replace the existing protection measure in a manner that would eliminate or reduce those impacts, while maintaining public benefits. The analysis shall also be made under an assumption the existing protection measure is not assumed to exist, in order to provide a measure of the impacts of the existing protection measure on the site conditions. All reasonable measures to eliminate or reduce impacts to coastal resources and maintain public benefits must be implemented as a condition of project approval, subject to principles of nexus and proportionality.

(d) On lots within the Urban or Rural Services Lines with a legally established coastal bluff protection measure, and an existing, legal habitable structure, the Planning Director may reduce the required 100-year setback for repair, maintenance, improvement or reconstruction of such structures that currently encroach into the setback, and there is no alternative location on the property owner's lots to relocate the structure. No exception is allowed to the 25-foot minimum coastal bluff setback. The footprint of the portion of the structure within the 100-year setback may change, but the floor area of that portion of the footprint must not increase. The project analysis must consider the existing shoreline or coastal bluff protection structure pursuant to subsection (c).(e) Additions, including second story and cantilevered additions, which extend the existing structure in a seaward direction, shall comply with the minimum 25-foot and 100-year setback.

(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 Notice and Acknowledgement 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, and the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, accepting risk, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

(g) Acceptance of drainage and landscape plans for the site by the County Geologist. Drainage plans shall be prepared by a civil engineer, and reviewed by both the project engineering geologist and geotechnical engineer when part of the design team.

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

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

(j) Coastal Development Permits (CDPs) authorizing accessory structures shall include a requirement that the permittee (and all successors in interest) shall apply for a CDP to remove the accessory structure(s) if it is determined by a geotechnical engineer or engineering geologist that the accessory structure is in danger from erosion, landslide, or other form of bluff collapse.

(k) Projects (including landscaping and patios) which would unfavorably alter drainage patterns such that a change in drainage patterns would significantly increase or concentrate drainage over the bluff edge or increase infiltration into the bluff are not allowed in the applicable minimum bluff setback.

(l) Only grading for minor leveling of a scale typically accomplished by hand, which is necessary to create beneficial drainage patterns or install an allowed structure (such as decks or detached patios which do not require a building permit and do not unfavorable alter drainage patterns) are allowed within the applicable minimum bluff setback.

(2) Exemption.

(a) Any project (except those defined in Sections 16.10.070(G)(1)(k) which does not specifically require a building permit pursuant to Section 12.10.315 (exempted work) of the County Code is exempt from subsection (G)(1)(a-l) of this section. (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 shall only be allowed on parcels where necessary to protect existing structures from a significant threat, or on vacant parcels which, through lack of protection threaten adjacent developed lots, or to protect public roads and infrastructure, public beaches, and coastal dependent uses.

(b) 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 (G)(2) of this section.

(c) Application for shoreline and coastal bluff protective structures shall include thorough analysis by a civil engineer or engineering geologist of all reasonable alternatives to such structures, including but not limited to 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.

(d) Shoreline and coastal bluff protection structures shall be placed as close as possible to the development or structure requiring protection.

(e) Shoreline and coastal bluff protection structures shall not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, adversely impact recreational resources, increase erosion or flooding on adjacent property, create a significant visual intrusion, or cause harmful impacts to wildlife or fish habitat, archaeologic or paleontologic resources. Shoreline and coastal bluff protection structures shall minimize visual impact by employing materials that blend with the color of natural materials in the area.

(f) All protection structures shall meet approved engineering standards as determined through review of the technical report(s) and environmental review. Coastal studies for new, modified, reconstructed and replacement protection structures shall include the following minimum information:

(i) Detailed technical studies to accurately define oceanographic conditions affecting the site, including appropriate projections of sea level rise, and an analysis of the historic, current, and future pattern (for at least 100 years) of coastal erosion at the location of the new, modified, reconstructed or replacement protection structure;

(ii) An evaluation of how adjacent seawalls affect the site; and,

(iii) An estimate of the site stability and erosion characteristics.

(g) All shoreline protection structures shall include a permanent, County approved, monitoring and maintenance program. 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 describing any recommended maintenance work. Maintenance programs shall be recorded on the property title/deed, 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.

(h) Applications for shoreline or coastal bluff 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.

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

(4) Alteration of Damaged Structures. Reconstruction, repair, rebuilding, replacement, alteration, improvement, or addition to damaged shoreline or coastal bluff protection structures, or the structures they protect, located on or at the top of a coastal bluff that meets the definition of development/development activities in this Chapter must be found consistent with all applicable requirements of this Chapter.

(5) Coastal High Hazard Area Development Criteria. The provisions of Chapter 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.(6) 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.

(7) 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 (G)(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 protection structures except on lots in the Urban and Rural Services Line that have legally established protection structures, or where both adjacent parcels are already similarly protected;

(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 100-year stability (whichever is greater) setback;

(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 Notice and acknowledgement 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, the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, acceptance of risk by the property owners and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties, and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit must be consistent with this Chapter.

(8) 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. [Ord. 4836 § 121, 2006; Ord. 4518-C § 2, 1999; Ord. 4346 § 66, 1994; Ord. 4071 §§ 1—4, 1990; Ord. 3997 §§ 3—8, 1989; Ord. 3892 § 3, 1988; Ord. 3808 § 3, 1986; Ord. 3635 § 2, 1985; Ord. 3598 § 1, 1984; Ord. 3437 §§ 2, 3, 4, 1983; Ord. 3340 § 1, 1982; Ord. 2631, 1978; Ord. 2580, 1978; Ord. 2258, 1976; Ord. 2185, 1975; Ord. 2088, 1975].

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) Special Flood Hazard Area. The portion of a parcel within the special flood hazard area shall be excluded from any density calculations.

(E) Coastal Hazards. The portions of a property subject to coastal bluff erosion and inundation, as determined by a geologic hazards assessment, geologic report, or adopted flood insurance rate map (FIRM), shall be excluded from density calculations. [Ord. 5019 § 1, 2008; Ord. 4518-C § 2, 1999; Ord. 4426 § 3, 1996; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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 by the Planning Director or the decision making body. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

16.10.100 Exceptions.

(A) Request for Exception. A request for an exception to the provisions of this chapter 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.

(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 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 16.13.160(40), exists; and

(2) The project is necessary to mitigate a threat to public health, safety, or welfare; and

(3) The request is for the smallest amount of variance from the provisions of this chapter as possible; and

(4) Adequate measures will be taken to ensure consistency with the purposes of this chapter and the County General Plan.

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 12.10.425, 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 12.10.425. [Ord. 4518-C § 2, 1999; Ord. 4392A § 1, 1996; Ord. 4336 § 1, 1994; Ord. 3808 § 4, 1986].

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 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. [Ord. 4518-C § 2, 1999; Ord. 4392A § 2, 1996; Ord. 4336 § 2, 1994; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982; Ord. 2281, 1976; Ord. 2088, 1975].

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. [Ord. 4518-C § 2, 1999; Ord. 4392A § 3, 1996; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

Exhibit F

County Code Chapter 16.13
Floodplain Management Regulations

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Chapter 16.13

FLOODPLAIN MANAGEMENT REGULATIONS

Sections:

PART I. GENERAL AND APPLICABILITY

16.13.010 Statutory Authorization.

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the County of Santa Cruz does hereby adopt the following floodplain management regulations.

16.13.020 Findings of Fact

(A) Flood hazard areas in the County of Santa Cruz are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health,

safety, and general welfare.

(B) These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities also contributes to flood losses.

16.13.030 Statement of Purpose

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by legally enforceable regulations applied uniformly throughout the County of Santa Cruz to all publicly and privately owned land within flood prone, mudslide [i.e. mudflow] or flood-related erosion areas. These regulations are designed to:

(A) Protect human life and health and property from the dangers of flooding;
(B) Minimize the need for publicly funded and hazardous rescue efforts to save those who are isolated by flood waters;
(C) Minimize expenditure of public money for costly flood damage repair and flood control projects;
(D) Minimize disruption of commerce and governmental services;
(E) Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;
(F) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage;
(G) Maintain the County of Santa Cruz's participation in the National Flood Insurance Program, thereby giving citizens and businesses the opportunity to purchase flood insurance;
(H) Retain the natural channel, shoreline, and floodplain creation process and other natural floodplain functions that protect, create, and maintain habitat for threatened and endangered species;
(I) Prevent or minimize loss of hydraulic, geomorphic, and ecological functions of floodplains and stream channels;
(J) Encourage that those who occupy the areas of special flood hazard assume responsibility for their actions;
(K) Exceed the minimum standards for participation in the National Flood Insurance Program, thereby giving citizens and businesses the opportunity to purchase flood insurance at reduced rates.

16.13.040 Scope.

The provisions of this ordinance shall apply to all development 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 placement of miscellaneous and utility structures.

16.13.050 Methods of Reducing Flood Losses.

In order to accomplish its purposes, this ordinance includes regulations to:

(A) Restrict or prohibit uses and developments which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
(B) Require that uses and developments vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
(C) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
(D) Control filling, grading, dredging, and other development which may increase flood damage; and
(E) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

16.13.060 Basis for Establishing Flood Hazard Areas

The Flood Insurance Study for Santa Cruz County dated April 15, 1986 and all subsequent amendments and revisions, the accompanying Flood Insurance Rate Maps (FIRM), and all subsequent amendments and revisions to such maps, are adopted by reference as a part of this ordinance and serve as the basis for establishing flood hazard areas.

The Flood Insurance Study 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.

Pursuant to Part V of this ordinance, the Floodplain Administrator may require submission of additional data to establish flood hazard areas. This shall apply to areas adjacent to a mapped or unmapped watercourse.

In addition, where field surveyed topography indicates that ground elevations are below the closest applicable base flood elevation, even in areas not delineated as a flood hazard area on a FIRM, the area shall be considered a flood hazard area and subject to the requirements of this ordinance and, as applicable, the requirements of the building codes.

When a draft or preliminary Flood Insurance Study indicates an increase in the base flood elevation or an expansion of the flood hazard area, this information shall be considered as available data and utilized in proposed development.

Maps and studies that establish flood hazard areas are on file at the Santa Cruz County Planning Department, 701 Ocean Street, Room 400, Santa Cruz, CA 95060.

16.13.070 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 13.03 of the County Code and shall be subject to approval by the California Coastal Commission.

16.13.080 Abrogation and Greater Restrictions.

This chapter is not intended to repeal, abrogate, 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.

16.13.090 Warning.
The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the special flood hazard areas, or that uses permitted within such flood hazard areas, will be free from flooding or flood damage.

16.13.100 Liability.
This chapter shall not create liability on the part of the County of Santa Cruz, any officer or employee thereof, the State of California, or the Federal Insurance & Mitigation Administration, Federal Emergency Management Agency for any flood damages that may result from reliance on this chapter or any administrative decision lawfully made hereunder. The Floodplain Administrator or any employee charged with the enforcement of this ordinance, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this ordinance or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this ordinance shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The Floodplain Administrator and any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this ordinance.

16.13.110 Severability.
If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any part thereof, other than the part so declared.

16.13.120 Coordination with Building Codes.
Pursuant to the requirement established in State statute that the County of Santa Cruz administer and enforce the State building codes, the Board of Supervisors of Santa Cruz County does hereby acknowledge that the State building codes contain certain provisions that apply to the design and construction of buildings and structures in flood hazard areas. Therefore, this ordinance is intended to be administered and enforced in conjunction with the State building codes. Unless otherwise specified herein, the term “building codes” refers to the California Code of Regulation, Title 24.

Where, in any specific case, requirements of this ordinance conflict with the requirements of the building codes, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

16.13.130 Areas to Which this Ordinance Applies.
This ordinance shall apply to all mapped and unmapped flood hazard areas within the jurisdiction of the County of Santa Cruz, as established in Section 16.13.060 of this ordinance.

16.13.140 Other Laws.
The provisions of this ordinance shall not be deemed to nullify any provisions of local, state or federal law.

16.13.150 Interpretation.

In the interpretation and application of this ordinance, all provisions shall be:

(A) Considered as minimum requirements;
(B) Construed in favor of protecting floodplain functions over development allowances; and
(C) Deemed neither to limit nor repeal any other powers granted under State statutes.

PART II. DEFINITIONS

16.13.160 Definitions.

For the purpose of this ordinance, the following definitions apply,

(1) Accessory structure. A structure that is located on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure.

(2) Addition. An improvement to an existing structure that increases the area, measured in square feet. The use of breezeways, corridors, or other non-integral connections between structures shall not cause separate buildings or structures to be considered additions to an existing structure.

(3) Area of shallow flooding. A designated AO or AH Zone on the County of Santa Cruz Flood Insurance Rate Map (FIRM). In these zones, the base flood elevations and depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable an indeterminate; and velocity flow may be evident. Such flooding is characterized by sheet flow or ponding.

(4) Area of special flood hazard. See Special Flood Hazard Area.

(5) Alteration of a watercourse. An alteration of a watercourse includes, but is not limited to, any dam, impoundment, levee, channel realignment, conversion to pipe conveyance, bank hardening, refuse dumping, backfilling, excavating, grading, alteration of vegetation, diversion, dewatering or change in cross-sectional area or capacity, which may alter, impede, retard, accelerate, or change the direction and/or velocity of the riverine flow of water and its natural materials transport during conditions of the base flood.

(6) Base flood. A flood which has a one percent chance of being equaled or exceeded in any given year. The base flood is commonly referred to as the "100-year flood" or the “1-percent-annual-chance flood”.

(7) Base flood elevation (BFE). The water surface elevation of the base flood in relation to the datum specified on the FIRM, or as established in a hydraulic investigation.

(8) Base flood height. The water surface height of the base flood in relation to existing grade elevations.

(9) Basement. Any area of a building having its floor subgrade (below ground level) on all sides.

(10) Breakaway Wall. A wall that is not part of the structural support of the building and is designed and constructed to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

(11) Building Official. The officer or other designated authority charged with the administration and enforcement of the building codes, or a duly authorized representative.

(12) Building permit. An official document issued by the Building Department which authorizes performance of specific activities that are determined to be compliant with the building codes.

(13) Coastal high hazard area. A special flood hazard area extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to

high velocity wave action from storms or seismic sources. Coastal high hazard areas are also referred to as “V Zones” or “flood hazard areas subject to high velocity wave action” and are designated on Flood Insurance Rate Maps (FIRM) as Zone V1-V30, VE, V, or A (when located in a coastal area).

(14) County Geologist. A County employee who is a professional geologist registered with the California Board for Professional Engineers, Land Surveyors and Geologists or a professional geologist under contract by the County, who has been authorized by the Planning Director to assist in the administration of this chapter.

(15) Critical structure or facility. A facility necessary to protect health, safety, and welfare during a flood. Critical facilities include, but are not limited to, 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 nursing homes; high occupancy structures such as theaters, churches, office buildings, factories, and stores; and installations which produce, use or store hazardous materials or hazardous waste.

(16) Cumulative improvement. A cumulative improvement is a substantial improvement that involves two or more instances of repair, reconstruction, alteration, addition, or improvement to a structure, over the course of five consecutive years. For example, any improvement permit that is applied for within five years of the permit final of another instance of repair, reconstruction, alteration, addition, or improvement of the same structure, where, if the value of such activities, when added together, equals or exceeds fifty (50) percent of the market value of the structure prior to issuance of the first permit, the activity as a whole shall be considered to be a “substantial improvement.”

(17) Detailed Cost Estimate. A form provided by the Planning Department and completed by a licensed contractor titled “Cost Breakdown” which includes a breakdown of the costs to perform the improvement, the costs to repair the damaged building to its pre-damaged condition, or the combined costs of improvements and repairs to the building or structure. If acceptable to the Floodplain Administrator, a detailed cost estimate may also be an estimate prepared by a licensed contractor.

(18) Development. Any man-made change to improved or unimproved real estate within the special flood hazard area, including but not limited to, buildings or other structures, tanks, temporary structures, temporary or permanent storage of equipment or materials, mining, dredging, filling, grading, paving, excavations, removal of more than 5% of the vegetation on the property, or any other land disturbing activities.

(19) Encroachment. activities or construction within the floodway including fill, new construction, substantial improvements, and other development. These activities are prohibited within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses that the proposed encroachment would not result in any increase in flood levels. The County of Santa Cruz is responsible to review and maintain record of the documentation demonstrating that any permitted floodway encroachment meets National Flood Insurance Program (NFIP) requirements. A "no-rise certification" for floodways is required to document the analyses.

(20) Exception. A grant of relief from the requirements of this ordinance, or the flood resistant provisions of the building codes, which permits construction in a manner that would otherwise be prohibited by this ordinance.

(21) Existing construction or structure. Structures for which the “start of construction” commenced before April 15, 1986, which is the date of the County of Santa Cruz’s first map showing flood hazard areas.

(22) Existing manufactured home park or subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before April 15, 1986.

(23) Expansion to an existing manufactured home park or subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

(24) Federal Emergency Management Agency (FEMA). The Federal agency that, in addition to carrying out other functions, administers the National Flood Insurance Program.

(25) Fill. 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.

(26) Flood or flooding. A general and temporary condition of partial or complete inundation of normally dry land from:

i. The overflow of inland or tidal waters.

ii. The unusual and rapid accumulation or runoff of surface waters from any source.

(27) Flood control structure. 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, driveway, utility or transmission line.

(28) Flood damage-resistant materials. Any construction material capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair.

(29) Flood Fringe. The area that is subject to the base flood outside of the floodway boundary.

(30) Flood hazard area. See Special Flood Hazard Area.

(31) Flood Insurance Rate Map (FIRM). The official map of the County on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the jurisdiction. For insurance purposes, the original FIRM date for Santa Cruz County is April 15, 1986.

(32) Flood Insurance Study (FIS). The official report provided by the Federal Emergency Management Agency that contains the Flood Insurance Rate Map, the water surface elevations of the base flood, and supporting technical data.

(33) Floodplain. Any land area susceptible to being inundated by water from any source. The base flood is used to define the floodplain by Federal agencies and the County of Santa Cruz.

(34) Floodplain Administrator. The Planning Director or designee, to manage the administration and implementation of the National Flood Insurance Program regulations and the provisions of this ordinance.

(35) Floodplain development permit. A permit or document issued by the jurisdiction which authorizes performance of specific development activities located in a flood hazard area that are determined to be compliant with this ordinance.

(36) Floodproofing. Any combination of structural and non-structural additions, changes or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

(37) Floodway. See Regulatory Floodway.

(38) Floodway encroachment analysis. The hydrologic and hydraulic analyses of the impact a proposed development is expected to have on the floodway boundaries and base

flood elevations. The analysis shall be prepared by a registered professional civil engineer using standard engineering methods and models.

(39) Freeboard. A factor of safety usually expressed in feet above a base flood elevation or height for purposes of floodplain management. “Freeboard” is required to compensate for the many unknown factors that could contribute to flood heights or elevations greater than the height or elevation calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. Unless otherwise noted, freeboard shall be two feet.

(40) Hardship. For the purpose of administering this chapter, the exceptional hardship that would result from failure to grant the requested exception. The specific exception must be exceptional, unusual, and peculiar issue specific 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 means are more expensive, require property owner to build elsewhere, or put the parcel to a different use than originally intended or proposed.

(41) Highest adjacent grade (HAG). The highest natural elevation of the ground surface prior to construction next to the existing or proposed walls or foundation of a structure.

(42) Historic structure. Any structure that is:

i. Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

ii. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

iii. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

iv. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

(43) Hydrologic investigation. A report prepared by a registered professional civil engineer with expertise in hydrology and hydraulics which analyzes surface hydrology and hydraulics.

(44) Lowest adjacent grade (LAG). The lowest natural elevation of the ground surface prior to construction next to the existing or proposed walls or foundation of a structure.

(45) Lowest floor. The lowest floor of the lowest enclosed area, including basement (see “Basement” definition in this chapter), but excluding an enclosure below the lowest floor that is used solely for parking of vehicles, building access, or storage and provided the enclosure is built in accordance with the applicable design requirements of the building codes for flood openings, anchoring, construction materials and methods, and utilities in flood zones.

(46) Manufactured home. 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 attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

(47) Manufactured home park or subdivision. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

(48) Market Value. The price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. As used in this ordinance, the term refers to the market value of structures (not including the land or any value associated with the location; other site improvements or accessory structures; or indirect costs such as financing, construction loan interest or consultant costs).

(49) New construction. Structures for which the "start of construction" commenced on or after April 15, 1986 and includes any subsequent improvements to such structures.

(50) New manufactured home park or subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after April 15, 1986.

(51) Nonresidential. Any building or structure or portion thereof that is not classified Residential Group R or Institutional Group I in accordance with the building code.

(52) Planning Director. The Planning Director of the County of Santa Cruz or his or her authorized designee.

(53) Preliminary Cost Estimate. An estimate required from a licensed contractor based upon preliminary plans, such as those submitted with a discretionary application, which details the costs to perform the improvement, the costs to repair the damaged building to its pre-damaged condition, or the combined costs of improvements and repairs to the building or structure.

(54) Primary frontal dune. A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope and is determined or accepted by the County Geologist.

(55) Recreational vehicle. A vehicle which is:

i. Built on a single chassis;
ii. 400 square feet or less when measured at the largest horizontal projection;
iii. Designed to be self-propelled or permanently towable by a light-duty truck; and
iv. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

(56) Regulatory Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to carry and discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point. Also referred to as the Floodway.

(57) Repetitive Loss. Flood-related damages sustained by a structure on two separate occasions during a 10-year period ending on the date of the event for which the second claim is made, for which the cost of repairs at the time of each such flood event, on the average, equaled or exceeded 25% of the market value of the structure before the damages occurred.

(58) Road / Roadway. An open way for vehicular traffic. For the purpose of this chapter, a driveway is considered a road or roadway.

(59) Sand dunes. Naturally occurring accumulations of sand in ridges or mounds landward of the beach.

(60) Special flood hazard area (SFHA). 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.

(61) Start of construction. The date the building permit was issued, whether for new construction or substantial improvement of a building or structure, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of 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.

(62) Structure. A walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

(63) Substantial damage. Damage of any origin sustained by a building or structure whereby the cost of restoring the structure to it's before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

(64) Substantial improvement. Any reconstruction, rehabilitation, addition, or other improvement of a building or structure, or the cumulative total of such activities as defined in subsection (16) of this section, the cost of which equals or exceeds 50 percent of the market value of the building or structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

i. Any project for improvement of an existing building or structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified in writing by the local code enforcement official prior to a permit application and which are the minimum necessary to assure safe living conditions; or

ii. Any alteration of a "historic structure," provided the alteration will not preclude the structure's continued designation as a "historic structure"; or

(65) V Zone. See "Coastal High Hazard Area"

(66) V Zone Certificate. A certification prepared by a registered professional engineer and/or architect, in a form prepared by the Planning Department, that certifies that the design and planned methods of construction meet the requirements of the NFIP and this Chapter for construction in a V Zone.

(67) V Zone Certificate, Final. A certification prepared by a registered professional engineer, architect and/or surveyor in a form prepared by the Planning Department, which is submitted prior to final inspection of a structure that certifies that the construction met the requirements of the NFIP and this Chapter for construction in a V Zone.

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

(69) Watercourse. A lake, river, creek, stream, wash, arroyo, channel or other topographic feature in, on, through, or over which water flows at least periodically.

(70) Watercourse crossing. A road, driveway, bridge, culvert, low-water crossing or similar mean for vehicles, pedestrians or utilities to travel from one side of a watercourse to the other side.

16.13.170 Terms Defined in Other Codes.
Where terms are not defined in this ordinance and are defined in the building codes, such terms shall have the meanings ascribed to them as in that code.

16.13.180 Terms Not Defined.
Where terms are not defined in this ordinance or the building codes, such terms shall have ordinarily accepted meanings such as the context implies.

Part III. ADMINISTRATION

16.13.190 Designations.
The Planning Director, or designee, is the Floodplain Administrator. The Floodplain Administrator may delegate performance of certain duties to other employees, such as plans examiners and inspectors.

16.13.200 Duties and Powers of the Floodplain Administrator.
The Floodplain Administrator is authorized and directed to administer and enforce the provisions of this ordinance. The Floodplain Administrator shall have the authority to render interpretations of this ordinance and to establish policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be consistent with the intent and purpose of this ordinance. Such interpretations, policies and procedures shall not have the effect of waiving requirements specifically provided for in this ordinance without the granting of an exception pursuant to Part IX of this ordinance.

16.13.210 Applications and Permits.
The Floodplain Administrator, or his or her designee in coordination with other pertinent offices of the jurisdiction, shall:

(A) Review applications to determine whether proposed new development will be located in flood hazard areas;
(B) Review applications for modification of any existing development in flood hazard areas for compliance with the application requirements of this ordinance;
(C) Interpret flood hazard area boundaries, provide available flood elevation and flood hazard information;
(D) Determine whether additional flood hazard data shall be obtained or developed;
(E) Review applications to determine whether proposed development will be reasonably safe from flooding;
(F) Issue floodplain development permits when the provisions of this ordinance have been met, or disapprove the same in the event of noncompliance;
(G) Coordinate with the Building Official to assure that applications for building permits for buildings and structures comply with the requirements of this ordinance;
(H) When a damaging event has occurred, regardless of the cause of damage, coordinate with the Building Official to inspect areas where buildings and structures in flood hazard areas have been damaged and notify owners of damaged buildings and structures in these flood hazard areas that (a) permits may be required prior to repair, rehabilitate, demolish, relocate, or reconstruct; and (b) buildings and structures that are determined to have sustained substantial damage are subject to the requirements of the building codes and this ordinance.

16.13.220 Determinations for Existing Structures.
For applications for permits to modify existing structures in the special flood hazard area, including additions, repairs, renovations, and alterations, the Floodplain Administrator, in coordination with the Building Official, shall:

(A) Estimate the market value, or require the applicant to obtain a professional appraisal of the market value, of the structure before the proposed work is performed and / or before any unpermitted improvements. When repair of damage is proposed, the market value estimate or appraisal shall be of the structure's value before the damage occurred;
(B) Require, during review of discretionary applications, a preliminary cost estimate. If the preliminary cost estimate exceeds 40% of the market value or if the floodplain administrator determines that a more detailed estimate is needed, require a detailed cost estimate and detailed plans with the discretionary application;
(C) Require, prior to issuance of a building permit, a detailed cost estimate from the licensed contractor who is contracted by the owner of the property to perform the work. If the work will be performed by someone other than a licensed contractor, the detailed cost estimate will still be required to be completed by a licensed contractor. Alternatively the Floodplain Administrator may estimate the costs;
(D) Require the contractor to certify that the detailed cost estimate includes all costs associated with the work as shown on the referenced plans, or described in the permit description if plans are not required by the Building Department;
(E) Require the property owner to certify that the contractor's estimate includes all project costs associated with the work shown on the referenced plans, or described in the permit description if plans are not required;
(F) Compare the cost to perform the proposed improvements, the cost to repair the damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, as applicable, to the market value of the building or structure as established in 16.13.220(A);
(G) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage;
(H) Determine and document whether the proposed work constitutes a cumulative improvement and/or damage;
(I) Notify the applicant of the results of the determination and whether compliance with the requirements for new construction is required; and
(J) Maintain a record of the value of all permitted improvements and repairs to existing structures to facilitate the determination of cumulative improvement.

16.13.230 Modifications of the Strict Application of the Provisions of the Building Codes. The Floodplain Administrator shall review requests submitted to the Building Official that seek approval to modify the strict application of the flood load and flood-resistant construction requirements of the building codes to determine whether such requests can be considered for an exception pursuant to Part IX of this ordinance.

16.13.240 Notices and Orders.
The Building Official shall issue all necessary notices or orders pursuant to the County's adoption of the Uniform Code for the Abatement of Dangerous Buildings to ensure compliance with this ordinance.

16.13.250 Inspections.

The Floodplain Administrator or designee shall make the required inspections specified in Part VII and VIII of this ordinance. The Building Official shall make the required inspections of buildings and structures specified in Part VII and VIII of this ordinance.

16.13.260 Other Duties of the Floodplain Administrator.

The Floodplain Administrator shall have other duties, including but not limited to:

(A) Establish, in coordination with the Building Official, written procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 16.13.220 of this ordinance, including cumulative substantial improvement;

(B) Require that applicants proposing an alteration of a watercourse in a mapped FEMA flood hazard area notify adjacent communities, the California Department of Water Resources, and the Federal Emergency Management Agency (FEMA);

(C) Require applicants who submit a hydrologic investigation or a floodway encroachment analysis to support permit applications to submit to FEMA, the data and information necessary to maintain the Flood Insurance Rate Maps if the analyses propose to change base flood elevations, flood hazard area boundaries, or floodway designations; such submissions shall be made within 6 months of such data becoming available; and

(D) Notify the Federal Emergency Management Agency when the corporate boundaries of the County of Santa Cruz have been modified.

16.13.270 Department Records.

Regardless of any limitation on the period required for retention of public records, the Floodplain Administrator shall maintain and permanently keep and make available for public inspection all records that are necessary for the administration of this ordinance and the flood provisions of the building codes, including Flood Insurance Rate Maps; Letters of Map Amendment and Letters of Map Revision; records of issuance of permits and denial of permits; determinations of whether proposed work constitutes substantial improvement or repair of substantial damage; required certifications and documentation specified by the building codes and this ordinance, including but not limited to Elevation Certificates, Floodproofing Certificates, and V Zone Certificates; notifications to adjacent communities, FEMA, and the state related to alterations of watercourses; assurance that the flood carrying capacity of altered watercourses will be maintained; documentation related to exceptions, including justification for their issuance; and records of enforcement actions taken pursuant to this ordinance and the flood resistant provisions of the building codes.

Part IV. PERMITS

16.13.280 Permits Required.

Anyone who intends to undertake any development activities within the scope of this ordinance which is wholly within or partially within any reasonably suspected flood hazard area shall first make application to the Planning Department and obtain any required permit(s). No such permit shall be issued until compliance with the requirements of this ordinance and all other applicable codes and regulations has been satisfied.

16.13.290 Floodplain Development Permit.

Floodplain permits shall be issued for all development activities including those which are not subject to the requirements of the building codes and those which do not constitute a substantial improvement.

16.13.300 Buildings and Structures Exempt From a Building Permit are Subject to the Requirements of this Ordinance.

Floodplain permits are required for buildings and structures that are explicitly exempt from requirements to obtain a building permit under the building codes, including but not limited to:

(A) One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses of any size
(B) Fences of any height.
(C) Retaining walls of any height.
(D) Water tanks of any size.
(E) Fill placement of any scale.

16.13.310 Application for a Permit.

Anyone who proposes development within a flood hazard area shall file an application with the Planning Department. The information provided shall:

(A) Identify and describe the development to be covered by the permit.
(B) Describe the land on which the proposed development is to be conducted by legal description, street address or similar description that will readily identify and definitely locate the site.
(C) Indicate the use and occupancy for which the proposed development is intended.
(D) Be accompanied by a site plan and/or construction documents as specified in Part V of this ordinance, if required.
(E) State the valuation of the proposed work, based upon a preliminary or detailed cost estimate, as required by the Floodplain Administrator and this Chapter. The cost estimate shall include a list of all plan sheets used to develop the estimate, including title, latest revision date and plan preparer, as well as the signature and license number of the contractor who prepared the cost estimate.
(F) Be signed by the applicant or the applicant's authorized agent.

16.13.320 Validity of Permit.

The issuance of a permit pursuant to this ordinance shall not be construed to be a permit for, or approval of, any violation of this ordinance, the building codes, or any other ordinance of the jurisdiction. The issuance of a permit based on submitted documents and information shall not prevent the Floodplain Administrator from requiring the correction of errors. The Building Official is authorized to prevent occupancy or use of a building or structure which is in violation of the permit, the building codes or of any other ordinances of this jurisdiction.

16.13.330 Notice of Hazards.

The developer and/or subdivider of a parcel or parcels in an area of flood hazards shall be required, as a condition of development or building permit approval, to record a Declaration of Flood Hazards with the County Recorder. The Declaration shall include a description of the hazards on the parcel or parcels, the level of hydrologic analysis conducted, and an acknowledgement and assumption of risks posed by flood hazards.

16.13.340 Permit Requirements.

All other required state and federal permits shall be obtained by the applicant as a conditions of floodplain permit approval.

16.13.350 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 Floodplain Administrator.

16.30.360 Determination of the base flood elevation.
When base flood elevation data are not provided in the Flood Insurance Study, the Floodplain Administrator shall obtain, review, and reasonably utilize the best base flood data available from Federal, State or other sources, as a basis for elevating new and substantially improved residential structures and elevating or floodproofing new and substantially improved non-residential structures, to at least two feet above the base flood level. If data are not available, the applicant shall provide an analysis to estimate the base flood elevation, in compliance with sections 16.13.400 B, C, and D.

16.13.370 Expiration and Extension.
A floodplain development permit shall become invalid pursuant to expiration limits of Building Permits pursuant to Code Section 12.10. Extensions to floodplain development permits shall granted pursuant to the provisions for building permits established in County Code Section 12.10.

16.13.380 Suspension or Revocation.
The Floodplain Administrator is authorized to suspend or revoke a floodplain development permit wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of this ordinance or any applicable ordinance or code of the County.

Part V. CONSTRUCTION DOCUMENTS

16.13.390 Information for All Construction and Development in Flood Hazard Areas.
The Floodplain Administrator is authorized to waive the submission of construction documents and other data if it is found that the nature of the work applied for is such that the review of such submissions is not necessary to ascertain compliance with this ordinance.

The site plan or construction documents for any development subject to the requirements of this ordinance shall be drawn to scale and shall include, as applicable to the proposed development:

(A) A site plan prepared by a licensed surveyor;
(B) Delineation of flood hazard areas, floodway boundaries and flood zones, and the base flood elevation, as appropriate;
(C) If base flood elevations are not included on the FIRM or in the Flood Insurance Study (FIS), delineation of any flood hazard area, flood elevation and floodway data that may be available from Federal, state, or other sources that the Floodplain Administrator determines are applicable pursuant to Section 16.13.400 of this ordinance.;
(D) Location of the proposed activity and proposed structures, and locations of existing buildings and structures;
(E) Location, extent, amount, and proposed final grades of filling, grading, or excavation, and location and extent of any proposed alteration of sand dunes;
(F) If the placement of fill is proposed: the amount, type, and source of fill material; a description of the intended purpose of the fill areas; evidence that the proposed fill areas are mitigated with compensatory storage; and compaction specifications; and
(G) Existing and proposed alignment of any watercourses proposed to be altered.

16.13.400 Information in Flood Hazard Areas Without Base Flood Elevations.
Where flood hazard areas are delineated on the FIRM and base flood elevation data have not been provided (approximate A Zones) or in un-mapped areas identified by the Floodplain Administrator as susceptible to flooding, the Floodplain Administrator shall:

(A) Obtain, review, and reasonably use, or require the applicant to obtain and use, available data from a Federal or state agency or other source; or
(B) Require that a registered professional engineer develop base flood data prepared in accordance with currently accepted engineering practices; and
(C) Require a 25 percent factor of safety be added to the hydrologic analysis when USGS Regional Regression equations are used to calculate the 100-year (one percent chance) peak discharge.
(D) If the base flood data are to be used to support a Letter of Map Change from FEMA, advise the applicant that the analyses shall be prepared in a format required by FEMA, and that it shall be the responsibility of the applicant to satisfy the submittal requirements

16.13.410 Additional Analyses and Certifications.

As applicable to the location and nature of the proposed development, and in addition to the requirements of this section, the applicant shall have the following analyses prepared and sealed by a registered design professional for submission with the site plan or construction documents:

(A) For activities proposed to be located in a floodway, a floodway encroachment analysis that demonstrates that the proposed development will not cause any increase in the base flood elevation. Any encroachment which would cause any increase in the base flood elevation is prohibited.
(B) For activities proposed to be located in a riverine flood hazard area for which floodways have not been designated, a hydrologic investigation, prepared by a registered professional engineer, that determines the base flood elevation and identifies the boundaries of the floodway. If the activities are proposed to be located within the floodway, compliance with Section 16.13.470 is required.
(C) For alteration of a watercourse, an engineering analysis prepared in accordance with standard engineering practices which demonstrates that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased, and certification that the altered watercourse shall be maintained in a manner which preserves the channel's flood-carrying capacity; the applicant shall submit such analysis to FEMA as specified in Section 16.13.420 of this ordinance.
(D) For activities that propose to alter sand dunes in coastal high hazard areas, an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage.
(E) For new structures and substantial improvement/damage projects in the coastal high hazard area, a V-Zone Certificate, provided by the Floodplain Administrator, signed by the project architect or registered professional engineer, stating that the plans comply with all FEMA and County regulations for V-Zone construction

16.13.420 Submission of Additional Data to FEMA.

If additional hydrologic, hydraulic or other engineering data and studies are submitted to support an application, the applicant has the right to seek a Letter of Map Change from FEMA to change the base flood elevations, change floodway boundaries, or change boundaries of flood hazard areas shown on the FIRM, and to submit new technical data to FEMA for such purposes. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA. Submittal requirements and processing fees shall be the responsibility of the applicant. The applicant shall notify the Floodplain Administrator of such submittal.

16.13.430 Additional Information for Buildings and Structures in Flood Hazard Areas.

In addition to other requirements of this ordinance, the site plan or construction documents for buildings and structures located in whole or in part in flood hazard areas shall include:

(A) In flood hazard areas other than coastal high hazard areas, the elevation of the proposed lowest floor of structures proposed to be elevated.
(B) In flood hazard areas other than coastal high hazard areas, the elevation below which nonresidential buildings and structures, if not proposed to be elevated, will be dry floodproofed.
(C) In areas of shallow flooding shown on FIRMs as AO zones, the height of the proposed lowest floor, including basement, above the highest adjacent grade as established by a licensed surveyor.
(D) In coastal high hazard areas, the elevation of the bottom of the lowest horizontal structural member of the lowest floor.
(E) In coastal high hazard areas, the location of any proposed building, which shall be landward of the reach of mean high tide.

Part VI. DEVELOPMENT STANDARDS

16.13.440 Permit Conditions.

The recommendations of technical reports (if evaluated and accepted by the Floodplain Administrator) shall be included as permit conditions of any permit or approvals subsequently issued for the development. In addition, the requirements described below 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.

Article 1. Structures

16.13.450 Design and Construction of New and Substantially Improved Structures.

(A) New structures within the scope of the California Residential Code (CRC), and substantial improvement of existing structures within the scope of the CRC, shall be designed and constructed in accordance with the flood-resistant construction provisions of the California Residential Code.
(B) New structures within the scope of the California Building Codes, and substantial improvement of existing structures within the scope of the CBC, shall be designed and constructed in accordance with the flood-resistant construction provisions of the California Building Codes.

16.13.460 General Standards – Floodplains.

All development within any flood hazard area other than a coastal high hazard area shall meet the following criteria. Structures for which building permits were issued prior to April 15, 1986 are exempt from this section if any addition, repair, reconstruction, rehabilitation, alteration, or improvement does not meet the definition of “substantial improvement”, including when subject to the definition of “cumulative improvement” (pursuant to Sections 16.13.160 (16) and (64)).

(A) Structures shall be located outside of the flood hazard area when a buildable portion of the property exists outside of the flood hazard area.
(B) Structures and the foundations attached to them shall be anchored 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.

(C) Structures shall be constructed with materials and utility equipment resistant to flood damage and using construction methods and practices that minimize flood damage below two feet above the base flood elevation.

(D) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are elevated at least two feet above the base flood elevation. Minimum electric service required to address life safety and electric code requirements for parking of vehicles and storage is allowed below the base flood elevation if designed to prevent water from entering or accumulating within components.

(E) In flood zones A-O and A-H, drainage paths adequate to guide water away from structures and reduce exposure to flood hazards shall be provided.

(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 two feet above the one-hundred year flood level. Compliance with the elevation requirement shall be certified by a registered professional engineer, architect, or surveyor and submitted to the Floodplain Administrator prior to a subfloor building inspection.

(G) Non-residential structures shall be elevated in accordance with Section 16.13.460(F) or floodproofed if elevation is not feasible. Floodproofed structures shall:

(1) be floodproofed so that below an elevation two feet higher than the one-hundred 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;

(2) be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,

(3) 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 Floodplain Administrator and shall indicate the elevation to which floodproofing was achieved prior to a final building inspection.

(H) In flood zone AO, residential structures and elevated non-residential structures shall have the lowest floor elevated above the highest adjacent grade at least two feet higher than the depth number given on the FIRM Non-residential structures, where elevation is not feasible, shall have the lowest floor completely floodproofed above the highest adjacent grade at least two feet higher than 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 water. 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. Non-residential structures that are floodproofed in compliance with Section 16.13.460(G)(1) are exempt from this requirement.

16.13.470 General Standards – Floodways.

Located within special flood hazard areas as established in 16.13.060, and within some areas not mapped as part of the Flood Insurance Study, are areas designated as floodways (see also 16.13.160(37)). 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, and in flood hazard areas for which a floodway has not been designated, the following provisions apply:

(A) Encroachment Within Floodway Prohibited: Any encroachment, including fill, new construction, or other development activity is prohibited within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in flood levels during the base flood. Reconstruction, repair, alteration, or improvement of an existing structure, provided no additional encroachment is proposed, is exempt from the hydrologic and hydraulic engineering analysis requirement.

(B) 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 and hydraulic analyses, 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 Section 16.13.470(A), above.

(C) Setback from Floodway: Where neither a Base Flood Elevation nor a floodway has been identified by the Flood Insurance Study or if a site specific hydrologic study to determine the floodway has not been required, a minimum setback of 20 feet for an ephemeral stream, 30 feet for an intermittent stream and 50 feet for a perennial stream, as measured from the top edge of the banks of the 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 setback. (See also Chapter 16.30, Riparian Protection, for other regulations regarding setbacks from streams.)

(D) 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 Section 16.13.460 (Floodplain General Standards), 16.13.490 (Manufactured Homes), and 16.13.500 (Non-habitable Accessory Structures), as applicable. 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 encroachment.

(E) Permit Requirements: All other required local, state and federal permits must be obtained.

16.13.480 General Standards – Coastal High Hazard Area.

All development, specifically including the placement of and construction of manufactured homes, shall meet the following criteria. Structures for which building permits were issued prior to April 15, 1986 are exempt from this section if any addition, repair, reconstruction, rehabilitation, alteration, or improvement does not meet the definition of "substantial improvement", including when subject to the definition of "cumulative improvement" (pursuant to Sections 16.13.160 (16) and (64)).

(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.

(C) Location of the structure outside of the area of storm wave inundation where a buildable portion of the property is outside of the area of storm wave inundation.

(D) 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 lowest floor (excluding the pilings or columns) and elements that function as part of the structure, such as furnace, hot water heater, etc., are elevated at least three feet above the base flood elevation. Compliance with the elevation requirement shall be certified by a registered professional engineer, architect, or surveyor and submitted to the Building Official and Floodplain Administrator prior to a subfloor building inspection.

(E) 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).

(F) Structures shall be constructed with materials and utility equipment resistant to flood damage and using construction methods and practices that minimize flood damage below three feet above the base flood elevation.

(G) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are elevated at least three feet above the base flood elevation. Minimum electric service required to address life safety and electric code requirements for parking of vehicles and storage is allowed below the base flood elevation if designed to prevent water from entering or accumulating within components.

(H) The space below the lowest floor shall either be free of obstruction or constructed with non-supporting 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. The total space below the lowest floor that is enclosed with non-supporting breakaway walls shall be less than 300 square feet. For the purposes of this section, a breakaway wall shall be of non-masonry construction and have a design safe loading resistance of not less than ten (10) and no more than twenty (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.

(I) A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify on a “V-Zone Certificate” that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (D), (E), (F) (G) and (H) of this section prior to permit issuance.

(J) The use of fill for structural support of buildings is prohibited.

(K) The alteration of sand dunes which would increase potential flood damage is prohibited.

(L) Pavement and flat work (such as sidewalks and patios, etc.) shall be frangible (easily broken).
(M) Detached garages are prohibited.

16.13.490 Manufactured Homes.

All manufactured homes installed in flood hazard areas shall be installed by an installer that is licensed as a General Manufactured Housing Contractor by the California Department of Consumer Affairs and shall comply with the requirements of that agency and the requirements of this section.

(A) All new manufactured homes and replacement manufactured homes shall be installed on permanent, reinforced foundations that:
  1) In flood hazards areas other than coastal high hazard areas, are designed in accordance with the California Residential Code (CRC).
  2) In floodways, are designed in accordance with ASCE 24 (American Society of Civil Engineers).
  3) In coastal high hazard areas, are designed in accordance with the CRC.
(B) All new manufactured homes and replacement manufactured homes shall be installed using methods and practices which minimize flood damage and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. Methods of anchoring include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
(C) All new, replacement, and substantially improved manufactured homes shall be installed per the requirements of the residential code, ASCE 24 and Sections 16.13.460, 16.13.470, and 16.13.480, as applicable.

16.13.500 Non-Habitable Accessory Structures.

Non-habitable accessory structures, when proposed to be located within any flood hazard area, including substantial improvement of such accessory structures shall:

(A) Be located outside of the flood hazards area when a buildable portion of the property exists outside of the flood hazard area.
(B) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.
(C) Have electric service and / or mechanical equipment elevated two feet above the base flood elevation or three feet above the base flood elevation if located in the coastal high hazard area. Minimum electric service required to address life safety and electric code requirements for parking of vehicles and storage is allowed below the base flood elevation if designed to prevent water from entering or accumulating within components.
(D) Be constructed with flood damage-resistant materials below two feet above the base flood elevation or below three feet above the base flood elevation in coastal high hazard areas.
(E) Be used only for parking of vehicles or storage.
(F) If built in flood hazard areas other than coastal high hazard areas, have flood openings in compliance with the residential code to allow for the automatic entry and exit of flood waters.
(G) If built in coastal high hazard areas, be less than 100 square feet in area and constructed with breakaway walls.

16.13.510 Underground and Above Ground tanks.

(A) Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy assuming the tank is empty, during conditions of the base flood.
(B) Above-ground tanks in flood hazard areas shall be anchored or otherwise designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy assuming the tank is empty, during conditions of the base flood.
(C) Tank inlets, fill openings, outlets and vents shall be at or above the base flood elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the base flood.

16.13.520 Temporary Structures and Storage.

(A) Temporary structures shall be located outside of the flood hazards area when a buildable portion of the property exists outside of the flood hazard area.
(B) Temporary structures shall be allowed in the special flood hazard area during the period April 15th through October 15th.
(C) Temporary storage includes storage of goods and materials for a period of less than 180 days. Stored materials shall not include hazardous materials.

16.13.530 Swimming Pools.

(A) Pools shall be located outside of the flood hazards area when a buildable portion of the property exists outside of the flood hazard area.
(B) Where pools are proposed in a flood hazard area and the location of the pool is:
    1) In a flood hazard area for which a floodway has not been designated and the pool is above natural grade, the requirements of Section 16.13.470(B) and (C) of this ordinance shall apply.
    2) In a coastal high hazard area, the pool shall be designed and constructed in conformance with ASCE 24.

16.13.540 Critical and Public Facilities.

Critical facilities and nonessential public structures and additions shall be located outside of the flood hazard area 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 on property within or adjacent to the floodplain or coastal inundation areas.

16.13.550 Utility and Miscellaneous Group U.

Utility and Miscellaneous Group U, as defined in the building code, includes buildings and structures that are accessory in character and miscellaneous structures not classified in any specific occupancy in the building code, including, but not limited to, agricultural buildings, aircraft hangars (accessory to a one- or two-family residence), barns, carports, fences more than 6 feet high, grain silos (accessory to a residential occupancy), greenhouses, livestock shelters, private garages, retaining walls, sheds, stables, and towers.

(A) Utility and Miscellaneous Group U structures, when proposed to be located within any flood hazard area, including substantial improvement of such accessory structures shall:
    1) Be located outside of the flood hazards area when a buildable portion of the property exists outside of the flood hazard area.
    2) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.

3) Have electric service and or mechanical equipment two feet above the base flood elevation, except that minimum electric service required to address life safety and electric code requirements for parking of vehicles and storage is allowed below the base flood elevation if designed to prevent water from entering or accumulating.
4) Use flood damage-resistant materials below the base flood elevation.
5) If built in flood hazard areas other than coastal high hazard areas, have flood openings in compliance with the residential code to allow for the automatic entry and exit of flood waters.
6) If built in coastal high hazard areas, be less than 100 square feet in area and constructed with breakaway walls.

Article 2. Creation of New Parcels

16.13.560 Creation of New Parcels.

Allow the creation of new parcels including those created by minor land division or subdivision on parcels which include a flood hazard area only under the following circumstances:

(A) Subdivision proposals, including proposals for manufactured home parks and subdivisions, shall be reviewed to determine that:
1) Such proposals are consistent with the need to minimize flood damage and will be reasonably safe from flooding;
2) All public utilities and facilities such as sewer, gas, electric and water systems are located and constructed to minimize or eliminate flood damage;
3) Adequate drainage is provided to reduce exposure to flood hazards; and
4) Development of structures on newly created parcels will not be dependent on coastal protection structures.

(B) 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 located outside of the flood hazard area, and that public utilities and facilities such as roadways, stormwater management facilities, sewer, gas, electrical and water systems can be located and constructed to minimize flood damage and not cause a health hazard.

(C) If any portion of proposed subdivisions, including manufactured home parks and manufactured home subdivisions, lies within a flood hazard area, the following shall be required:
1) Preliminary land division proposals shall identify all flood hazard areas and the elevation of the base flood.
2) Delineation of flood hazard areas, floodway boundaries and flood zones, and base flood elevations, as appropriate, shall be shown on preliminary maps and final maps and certified by a registered professional engineer;

16.13.570 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) The portion of a property within the flood hazard area shall be excluded from density calculations.

(B) 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), shall be excluded from density calculations.

Article 3. Site Improvements, Utilities and Limitations

16.13.580 General Requirements.

All proposed new and replacement development shall meet the following criteria:

(A) Such proposals are consistent with the need to minimize flood damage, will be reasonably safe from flooding, and shall meet the minimum requirements of the County design criteria;

(B) All public utilities and facilities such as sewer, gas, electric, communication, and water systems are located or designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.

(C) Adequate drainage is provided to reduce exposure to flood hazards.

16.13.590 Sanitary Sewage Facilities.

(A) Replacement. All replacement sanitary sewage facilities, private sewage treatment plants (including all pumping stations and collector systems), and on-site waste disposal systems shall be designed in accordance with current building code standards as well as Chapter 7.38 of the County Code, to minimize or eliminate infiltration of flood waters into the facilities and discharge from the facilities into flood waters, or impairment of the facilities and systems. The capacity of existing septic systems in the floodplain and floodway shall not be increased.

(B) New septic systems and leach fields prohibited. New septic systems and leach fields shall not be located within the flood hazard area.

16.13.600 Water Supply Facilities.

All new and replacement water supply facilities shall be designed in accordance with the provisions of current building code standards, to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into flood waters.

16.13.610 Grading and Placement of Fill.

(A) No net increase in fill shall be allowed in flood hazards areas.

(B) Grading and the placement of fill is allowed within the flood hazard area in the minimum amount necessary, only when shown through analysis that compensatory storage is being provided by the project that proposes fill. Compensatory storage shall provide equivalent volume at equivalent elevations to that being displaced. For this purpose, “equivalent elevation” means having similar relationship to ordinary high water and the best available 10-year, 50-year and 100-year water surface profiles.

(C) Subject to the limitations of this ordinance, fill shall be designed to be stable under conditions of flooding, including rapid rise and rapid drawdown of floodwaters, prolonged inundation, and flood-related erosion and scour. In addition to these requirements, if intended to support buildings and structures, fill shall comply with the requirements of the building codes.

(D) All excavations in flood hazard areas shall be constructed to drain freely to the watercourse and not be subject to ponding when not inundated by flood waters.

(E) Any grading or fill is prohibited within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in flood levels during the base flood.

(F) The applicant shall provide to the Floodplain Administrator a certified survey of the excavation and fill sites demonstrating the fill and excavation comply with this article.

16.13.620 Limitations on Sites in Coastal High Hazard Areas.

In coastal high hazard areas, alteration of sand dunes shall be permitted only if it has been demonstrated by engineering analysis that the alteration will not increase potential flood damage consistent with Section 16.13.410(D) of this ordinance. Construction or restoration of dunes under or around elevated buildings and structures shall comply with Section 16.13.710 of this ordinance.

Article 4. Recreational Vehicles

16.13.630 Temporary Placement.

Recreational vehicles placed temporarily in flood hazard areas shall:

(A) Be on the site for fewer than 180 consecutive days; and

(B) Be fully licensed and ready for highway use (on wheels or jacking system and attached to the site only by quick-disconnect type utilities and security devices and with no permanent attachments such as additions, stairs, decks and porches).

16.13.640 Permanent Placement.

Recreational vehicles that do not meet the limitations for in Section 16.13.630 of this ordinance for temporary placement shall meet the requirements of Section 16.13.490 of this ordinance for manufactured homes.

Article 5. Other Development

16.13.650 General Requirements for Other Development.

All development, including man-made changes to improved or unimproved real estate for which specific provisions are not specified in this ordinance, shall:

(A) Be located and constructed to minimize flood damage;

(B) If development is proposed in a floodway, it shall not be authorized unless a floodway encroachment analysis demonstrates that the proposed development or land disturbing activity will not result in any increase to the level of the base flood;

(C) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the base flood;

(D) Be constructed of flood damage-resistant materials; and

(E) Have electric service and or mechanical equipment two feet above the base flood elevation in A Zones and three feet in coastal high hazard areas, except that minimum electric service required to address life safety and electric code requirements is allowed below the base flood elevation.

16.13.660 Fences in Floodways.

Fences in floodways shall not block the passage of floodwaters and shall be designed to break away if debris is caught during a flood event.

16.13.670 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. An appropriate hydrologic investigation shall be required as determined by the Floodplain Administrator.

16.13.680 Roads and Watercourse Crossings in Floodways.

Roads and watercourse crossings in floodways shall not cause any increase in the base flood, as demonstrated through a floodway encroachment analysis. For bridges serving as watercourse crossings, hydraulic calculations shall be submitted (based upon the 100 year storm) which indicate that there is no increase in the base flood elevation.

16.13.690 Decks and Patios in Coastal High Hazard Areas.

In addition to the requirements of the building codes, in coastal high hazard areas, decks and patios shall be located, designed, and constructed in compliance with the following:

(A) A deck that is structurally attached to a building or structure shall have the bottom of the lowest horizontal structural member located three feet above the base flood elevation and any supporting members that extend below the base flood elevation shall comply with the foundation requirements that apply to the building or structure, which shall be designed to accommodate any increased loads resulting from the attached deck.

(B) A deck or patio that is located below the base flood elevation shall be structurally independent from buildings and structures and their foundation systems, and shall be designed and constructed either to remain intact and in place during base flood conditions or to break apart into small pieces that will not cause structural damage to adjacent elevated buildings and structures.

(C) A deck or patio that has a vertical thickness of more than 12 inches or that is constructed with more than the minimum amount of fill that is necessary for site drainage shall not be approved unless an analysis demonstrates that no harmful diversion of floodwaters or wave runup and wave reflection would increase damage to adjacent elevated buildings and structures.

(D) A deck or patio that has a vertical thickness of 12 inches or less and that is at natural grade or on fill material that is similar to and compatible with local soils and is the minimum amount necessary for site drainage may be approved without requiring analysis of the impact on diversion of floodwaters or wave runup and wave reflection.

16.13.700 Other Development in Coastal High Hazard Areas.

In coastal high hazard areas, other development activities that shall be permitted only if located outside the footprint of, and not structurally attached to, buildings and structures, and only if an analysis demonstrates no harmful diversion of floodwaters or wave runup and wave reflection on adjacent elevated buildings and structure. These activities include but are not limited to:

(A) Bulkheads, seawalls, retaining walls, revetments, and similar erosion control structures;

(B) Solid fences and privacy walls, and fences prone to trapping debris, unless designed and constructed to fail under design flood conditions; and

(C) Mounded septic systems.

16.13.710 Nonstructural Fill in Coastal High Hazard Areas.

In coastal high hazard areas:

(A) Nonstructural fill with finished slopes that are steeper than one unit vertical to five units horizontal shall be permitted only if an analysis demonstrates no harmful diversion of floodwaters or wave runup and wave reflection on elevated adjacent buildings and structure

(B) Sand dune construction and restoration of sand dunes under or around elevated buildings may be permitted without engineering analysis or certification of the diversion of floodwater or wave runup and wave reflection if the scale and location of the dune work is consistent with local beach-dune morphology and, the vertical clearance is maintained between the top of the sand dune and the lowest horizontal structural member of the building.

Part VII. INSPECTIONS

16.13.720 General.
Development for which a permit is required shall be subject to inspection.

16.13.730 Buildings and Structures.
The Building Official and Floodplain Administrator shall inspect buildings and structures to determine compliance with the flood load and flood-resistance construction requirements of the building codes. Upon placement of the lowest floor, including the basement, and prior to further vertical construction, the documentation of the elevation requirements required by this code shall be submitted to the Building Official.

16.13.740 Development Other Than Buildings and Structures.
The Floodplain Administrator shall inspect development other than buildings and structures that are within the scope of the building codes to determine compliance with the requirements of this ordinance and the conditions of the issued permit.

16.13.750 Right of Entry
The filing of an application for development in a floodplain constitutes a grant of permission for the County to enter the development area for the purpose of administering this chapter from the date of the application to the termination of the permit. The Planning Director shall be supplied with a key or lock combination or permitted to install a County lock.

Part VIII. BUILDING PERMIT FINAL INSPECTION REQUIREMENTS

16.13.760 Use and Occupancy of Buildings and Structures.
Prior to the final inspection the owner or authorized agent shall submit the following documentation that has been prepared and sealed by a registered professional surveyor, engineer or architect, as required:

(A) For elevated buildings and structures in flood hazard areas other than coastal high hazard areas, the elevation of the lowest floor, including basement, and all other required information on an Elevation Certificate, provided by FEMA, and based on final construction.

(B) For buildings and structures in coastal high hazard areas, the elevation of the bottom of the lowest horizontal structural member supporting the lowest floor, and all other required information on an Elevation Certificate, provided by FEMA, and based on final construction.

(C) For buildings and structures in coastal high hazard areas, a completed Final V Zone Certificate, available from the Planning Department.

(D) Flood Hazards Declaration. The developer and/or the subdivider of a parcel or parcels in an area subject to flood hazards shall be required, as a condition of development approval and building permit approval, to record a Declaration of Flood Hazards with the County Recorder. The Declaration shall include a description of the hazards on the parcel and the level of technical investigation, if any, conducted, and include an acknowledgement and assumption of risk.

Part IX. EXCEPTIONS

16.13.770 General.

A request for an exception to the provisions of this chapter or the permit conditions may be considered by the Planning Director if the exception is necessary to mitigate a threat to public health, safety and welfare.

16.13.780 Limitations on Authority.
The Planning Director shall base his or her decisions on technical justifications submitted by applicants, the considerations for issuance in Section 16.13.820, and the conditions of issuance set forth in Section 16.13.830 of this ordinance, and has the right to attach such conditions as it deems necessary to further the purposes and objectives of this ordinance.

16.13.790 Restrictions in Floodways.
An exception shall not be issued for any proposed development in a floodway if any increase in base flood elevations would result, as evidenced by the applicable analyses and certifications required in Section 16.13.410 of this ordinance.

16.13.800 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 the threat to public health, safety, or welfare that would be mitigated.

16.13.810 Nature of Exception.
The exceptions set forth in this section of the ordinance 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 ordinance 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 regulations of this chapter shall be granted in rare circumstances and only where no other alternative is available.

16.13.820 Criteria for Issuance of Exceptions.
In reviewing applications for exceptions, the Planning Director shall consider all technical evaluations, all relevant factors, all other applicable provisions of the building codes, this ordinance, and all of the following:

(A) The danger that materials and debris may be swept onto other lands resulting in further injury or damage;
(B) The danger to life and property due to flooding or erosion damage;
(C) The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;
(D) The importance of the services provided by the proposed development to the County of Santa Cruz;
(E) The necessity to the structure of a waterfront location, where applicable;
(F) The availability of alternate locations for the proposed development that are not subject to flooding or erosion;
(G) The compatibility of the proposed development with existing and anticipated development;

(H) The relationship of the proposed development to the comprehensive plan and floodplain management program for that area;
(I) The safety of access to the property in times of flood for ordinary and emergency vehicles;
(J) The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site, and;
(K) The 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 systems, streets and bridges.

16.13.830 Conditions for Issuance of Exceptions.

Exceptions shall be issued only upon:

(A) Submission by the applicant of technical information showing good and sufficient cause that the unique characteristics of the size, configuration, or topography of the site renders the elevation standards inappropriate;
(B) A determination by the Floodplain Administrator that failure to grant the exception would result in exceptional hardship by rendering the lot undevelopable;
(C) A determination by the Floodplain Administrator that the granting of an exception will not result in any increase to flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances;
(D) A determination by the Floodplain Administrator 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.

Upon consideration of the factors in Section 16.13.820 and the purposes of this Chapter, conditions may be attached to the granting of exceptions as necessary to further the purposes of this Chapter.

16.13.840 Required Findings.

In granting an exception, the Planning Director shall make the following findings:

(A) that the project is necessary to mitigate a threat to public health, safety, or welfare; and
(B) that hardship exists; and
(C) that the request is for the smallest amount of variance from the provisions of this Chapter as possible; and,
(D) that adequate measures will be taken to ensure consistency with the purposes of this chapter and this Chapter and the County General Plan.

16.13.850 Notice.

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:

(A) That the issuance of an exception to construct a structure below the base flood level, or not meet the standards prescribed in this Chapter will result in substantially increased premium rates for flood insurance; and
(B) That such construction below the base level or construction that does not meet the standards prescribed in this Chapter increases risks to life and property; and

(C) The County of Santa Cruz shall be exempt from liability for any personal or property damage caused by construction below the base flood level or construction that does not meet the standards prescribed by this Chapter; and

(D) 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.

16.13.860 Records.

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.

Part X. VIOLATIONS

16.13.870 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.

16.13.880 Actions Constituting at Violation.

(A) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer, or furnish equipment or labor for any development in a flood hazard area as defined in 16.13.160(18) unless
   1) A floodplain permit has been obtained and is in effect which authorizes the development, or
   2) The development is exempt from the requirement for a floodplain permit approval

(B) It shall be unlawful for any person to exercise a development permit which authorizes development in a flood hazard area without complying with all of the conditions of such permit.

(C) 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 or welfare, the permittee shall be given notice of such violation, and a reasonable time shall be specified for its correction. It shall be unlawful for any person to refuse or fail to abate a condition as spelled out in such notice.

(D) It shall be unlawful for any person to knowingly do, cause, permit, aid, abet, or furnish and equipment or labor for any work in violation of a Stop Work Notice from and after it is posted on the site until the Stop Work Notice is authorized to be removed by the Planning Director.

(E) If the Planning Director determines that any floodplain development occurring in the County does not comply with the approved floodplain permit or this chapter, he or she may stop all work until corrective measures have been completed. The site shall be posted with a “Stop Work” notice. No other permits shall be issued by the County on the site, and the County may require that all work shall be stopped pursuant to any such permits issued, until corrections have been made to the satisfaction of the Planning Director.

(F) Whenever the Planning Director determines that floodplain development has been done without the required floodplain development permit, he may refuse to issue a permit for the work already completed and require mitigating action.

Part XI. PROJECT DENIAL

16.13.890 Project Denial.

A floodplain permit or the location of a proposed development shall be denied if the Planning Director determines that development is not in compliance with this Chapter or the project would conflict with National Flood Insurance Program regulations.

Part XII. NOTICES OF GEOLOGIC HAZARDS IN CASES OF DANGEROUS CONDITIONS

16.13.900 Issuance and Recordation of Notices of Geologic and / or Flood Hazards.

Whenever a site inspection, flood study, geologic hazards assessment or full geologic report identifies the presence of a geologic or flood 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 Chapter 12.10 of the Santa Cruz County Code, 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.

16.13.910 Abatement Procedures.

The Planning Director may initiate abatement procedures pursuant to the Uniform Code for the Abatement of Structural and Geologic Hazards as amended by Chapter 12.10 of the Santa Cruz County Code.

Part XIII. APPEALS

16.13.920 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 18.10, 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 Section 16.13.900 and 16.13.910 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 Section 12.10.425 of this Code.

Part XIV. FEES

16.13.930 Fees.

Fees for processing, checking, reviewing, reviewing technical reports, inspection, violations, and exception requests related to floodplain management shall be set by resolution by the Board of Supervisors.

Exhibit G

County Code Chapter 16.22
Erosion Control (clean)

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Chapter 16.22
EROSION CONTROL

Sections:

16.22.010 Purpose.

The purpose of this chapter is to eliminate and prevent conditions of accelerated erosion that have led to, or could lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil and vegetation cover, disruption of water supply, and increased danger from flooding, and to implement Local Coastal Program land use policies. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.020 Scope.

This chapter requires control of all existing and potential conditions of accelerated (human-induced) erosion; sets forth required provisions for project planning, preparation of erosion control plans, runoff control, land clearing, and winter operations; and establishes procedures for administering those provisions. This chapter

shall apply to both private and public activities including those of the County and other such governmental agencies as are not exempted by State or Federal law. [Ord. 4166 § 2, 1991; Ord. 4027 § 4, 1989; Ord. 3600 § 1, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.025 Amendment.

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 a chapter revision constitutes an amendment to the Local Coastal Program such revision shall be processed pursuant to the hearing and notification provisions of Chapter 13.03 SCCC and shall be subject to approval by the California Coastal Commission. [Ord. 3337 § 1, 1982].

16.22.030 Definitions.

“Accelerated erosion” means erosion caused by a human-induced alteration of the vegetation, land surface, topography, or runoff pattern. Evidence of accelerated erosion is often indicated by exposed soils, gullies, rills, sediment deposits, or slope failures caused by human activities.

“Access envelope” means an area delineated on the site plan to which all clearing and land disturbance for construction of access must be confined.

“Agricultural grading” means grading on land designated for exclusive agricultural use as specified under SCCC 16.50.040.

“Approved erosion control specialist” means a person who has met certain minimum qualifications established by the Planning Director which demonstrate his/her capability to prepare small-scale erosion control plans.

“Building envelope” means an area delineated on the development plans to which all clearing and land disturbance for construction must be confined.

“Development permit” as used in this Chapter means a permit issued by the County for new land use activities including but not limited to: building, grading, land clearing, subdivisions, minor land divisions, and residential, commercial, industrial and agricultural development.

“Drainage course” means a natural or manmade channel which conveys runoff either year-round or intermittently.

“Earth material” means rock, natural soil, or combination thereof.

“Erosion” means the wearing away of the ground surface as a result of the movement of wind or water.

“Erosion hazard” means the susceptibility of a site to erode, based on condition of slope, rock type, soil, and other site factors. High erosion hazard areas include areas of high and very high erosion hazard shown on maps prepared by the Planning Department. Hazard may be determined based on a site-specific investigation.

“Grading” means excavating, filling, leveling, or smoothing, or combination thereof.

“Land clearing” means the removal of vegetation down to duff or bare soil, by any method.

“Land clearing permit” means a permit granted by the Planning Director which authorizes the permittee to carry out land clearing.

“Land disturbance” means clearing, excavating, grading, or other manipulation of the terrain.

“Major grading” means grading in excess of 100 cubic yards.

“Major development proposals” means new commercial, industrial, or professional developments; or new residential developments of more than four units.

“Minor development proposals” means building permits, grading permits for less than 2,000 cubic yards, subdivisions of four or less lots, and any other project not identified as a major development proposal in SCCC 16.22.060(D).

“Minor grading” means grading less than 100 cubic yards.

“New road or driveway” means any newly constructed road or driveway or any improvement to an existing road bed which requires more than 100 cubic yards grading in any 500-foot segment in order to meet the design standards in SCCC 16.20.180. Any road or bridge constructed pursuant to a timber harvest permit issued by the State of California shall be considered a new road for the purposes of subsequent development and shall be subject to all current design standards and applicable policies.

“Onsite detention” means temporary storage of runoff on the site.

“Onsite retention” means permanent holding of runoff on the site through percolation to the ground.

“Owner” means the person or persons shown in the County Recorder’s Office as owner of the property.

“Permittee” means any person undertaking development activities upon a site pursuant to a permit granted by the County.

“Person” means any person, firm, association, corporation, organization, partnership, business, trust company, public agency, school district, the State of California and its political subdivisions or instrumentalities.

“Planning Director” means the Director of the Planning Department or ~~his~~ authorized designee charged with the administration and enforcement of this chapter. The Public Works Director or authorized designee may administer the provisions of the chapter for subdivisions.

“Responsible person” means any person who creates a condition which may lead to accelerated erosion. If a specific person cannot be identified, the owner of the land where such condition exists shall be considered the responsible person.

“Road” or “roadway” means an open way for vehicular traffic.

“Runoff” means the movement of water over the ground surface.

“Sediment” means eroded earth material that is carried by runoff and/or deposited in a stream, drainage course, or other area.

“Sensitive habitat” includes areas defined as sensitive habitats in General Plan and Local Coastal Program Land Use Plan Section 5.1, specifically 5.1.2 and 5.1.3.

“Site” means a parcel of land or contiguous parcels where land alterations, including grading, clearing, or construction, are performed or proposed.

“Soil” means the unconsolidated mineral and organic material on the immediate surface of the earth.

“Stream” means any watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United States Geological Survey map most recently published, or as indicated in the development permit when it has been field-determined that a watercourse either:

(1) Supports fish at any time of the year; or

(2) Has a significant water flow 30 days after the last significant storm; or

(3) Has a well-defined channel, free of soil and debris.

“Ten-year storm” means a storm of an intensity that would be exceeded on the average only once every 10 years. The intensity for the site shall be determined according to the County Public Works Design Criteria Manual. The duration of the storm used in runoff calculation shall be equivalent to the concentration time for the area which drains through the project. [Ord. 4496-C §§ 84, 85, 1998; Ord. 4426 § 4, 1996; Ord. 4346 § 68, 1994; Ord. 4131 § 1, 1991; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.040 General provisions.

No person shall cause or allow the continued existence of a condition on any site that is causing or is likely to cause accelerated erosion as determined by the Planning Director. Such a condition shall be controlled and/or prevented by the responsible person and the property owner by using appropriate measures outlined in subsequent sections of this chapter. Additional measures shall be applied if necessary by the responsible person and the property owner. Specific additional measures may be required by the Planning Director. Property owners will be given a reasonable amount of time, as determined by the Planning Director, to control existing problems depending on the severity of the problem, and the extent of necessary control measures. Where feasible, erosion problems shall be controlled no later than the beginning of the next rainy season (October 15th). [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.050 Project design.

The density and design of new development shall be planned to be consistent with the characteristics and constraints of the site:

(A) Structures on slopes that would normally require major grading shall utilize pole, step, or other foundations that do not require major grading.

(B) New lots shall not be created which will:

(1) Require new access roads and driveways to cross slopes exceeding 30 percent; or

(2) Require cuts and fills greater than 10 feet in height for distances greater than 50 feet or 10 percent of the new roadway length, whichever is greater.

(C) For any project, access roads and driveways should not cross slopes greater than 30 percent and cuts and fills should not exceed 10 feet. Exceptions to this rule can be granted if a route across steep slopes will result in less environmental damage than all alternative routes, or if no other alternative exists.

(D) Building and access envelopes or nonbuildable areas may be required to be delineated on the development plans so as to keep disturbance out of particularly erodible areas. Envelopes shall be required in areas of high erosion hazard.

(E) Streams or drainage courses shall not be obstructed or disturbed except for approved road crossings, unless disturbance of a drainage course will improve overall site design and be consistent with the purpose of this chapter.

(F) If the project is for creation of or access to a building site, land disturbance shall not take place until a building permit has been issued. If a permit cannot be issued until a determination of adequate water source and sewage disposal or other required site investigation is made, land disturbance shall be limited to the extent necessary to allow such an investigation. This provision shall not apply to road construction or other grading activities which are specifically required as a condition of a minor land division or other permit.

(G) Erosion control measures specified in, or pursuant to, this chapter, shall be in place and maintained at all times between October 15th and April 15th. [Ord. 3600 § 2, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.060 Erosion control plan.

(A) Prior to issuance of a building permit, development permit or land division, an erosion control plan indicating proposed methods for the control of runoff, erosion, and sediment movement shall be submitted and approved. Erosion control plans may also be required by the Planning Director for other types of applications where erosion can reasonably be expected to occur. The erosion control plan may be incorporated into other required plans, provided it is identified as such. Erosion control plans shall include, as a minimum, the measures required under SCCC 16.22.070, 16.22.080, 16.22.090, and 16.22.100. Additional measures or modification of proposed measures may be required by the Planning Director prior to project approval. No grading or clearing may take place on the site prior to approval of an erosion control plan for that activity. Final certification of project completion may be delayed pending proper installation of measures identified in the approved erosion control plan.

(B) Applications for land clearing permit approvals granted pursuant to this chapter shall be made according to Chapter 18.10 SCCC, and processed as an administrative minor permit (Level III). Particular plan components may be required by the Planning Director. Plans shall be of sufficient clarity to indicate the nature and the extent of the work proposed and show in detail that it will conform to the provisions of this chapter and all relevant laws and regulations. The plans shall include the following information in writing and/or diagrams:

(1) General location of the proposed site.

(2) Property lines and contours of the site including finish contours to be achieved by grading, details of terrain, and area drainage; proposed construction, proposed drainage channels, and other runoff control measures.

(3) Measures for runoff control and erosion control to be constructed with, or as a part of, the proposed work. All measures required under this chapter shall be shown. Function of erosion control measures shall be consistent with the provisions of this chapter.

(4) Delineation of areas to be cleared during development activities.

(5) Revegetation proposal for all surfaces exposed or expected to be exposed during development activities, including cut and fill slopes.

(6) Name and address of the owner(s).

(7) Assessor's parcel number(s) of the property on which the work is to be done.

(8) North arrow, scale, and name and location of nearest public road intersection.

(9) Name, address, and phone number of person who prepared the plan.

(C) For minor development proposals, the erosion control plan is not required to be prepared by a registered professional (as listed in subsection (D) of this section).

(D) For major development proposals, the erosion control plans shall be prepared by a registered professional authorized to do such work under State law. For these major projects, detailed plans of all surface and subsurface drainage devices, runoff calculations, and other calculations demonstrating adequacy of drainage structures shall be included. Inspection by the person preparing the plan and certification of proper installation of control measures may be required by the Planning Director. Major proposals include:

(1) Subdivisions of more than four lots.

(2) Grading in excess of 2,000 cubic yards.

(3) Commercial or industrial development permits for new structures; or residential development permit for more than four units.

(4) Other projects of a similar nature determined by the Planning Director to cause major land disturbance.

(E) Applications for activities where the Planning Director or designee recognizes that no land disturbance will take place shall not be required to include an erosion control plan. Such activities may include, but are not limited to:

(1) Change of use permits where there would be no expansion of land disturbing activities.

(2) Construction within an existing structure. [Ord. 4496-C § 86, 1998; Ord. 3439 § 1, 1982; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.070 Runoff control.

Runoff from activities subject to a building permit, parcel map, subdivision or development permit shall be properly controlled to prevent erosion. The following measures shall be used for runoff control, and shall be adequate to control runoff from a 10-year storm:

(A) On soils having high permeability (more than two inches/hour), all runoff in excess of predevelopment levels shall be retained on the site. This may be accomplished through the use of infiltration basins, percolation pits or trenches, or other suitable means. This requirement may be waived where the Planning Director determines that high groundwater, slope stability problems, etc., would inhibit or be aggravated by onsite retention, or where retention will provide no benefits for groundwater recharge or erosion control.

(B) On projects where onsite percolation is not feasible, all runoff should be detained or dispersed over nonerodible vegetated surfaces so that the runoff rate does not exceed the predevelopment level. Onsite detention may be required by the Planning Director where excessive runoff would contribute to downstream erosion or flooding. Any policies and regulations for any drainage zones where the project is located will also apply.

(C) Any concentrated runoff which cannot be effectively dispersed without causing erosion shall be carried in nonerodible channels or conduits to the nearest drainage course designated for such purpose by the Planning Director or to on-site percolation devices. Where water will be discharged to natural ground or channels, appropriate energy dissipators shall be installed to prevent erosion at the point of discharge.

(D) Runoff from disturbed areas shall be detained or filtered by berms, vegetated filter strips, catch basins, or other means as necessary to prevent the escape of sediment from the disturbed area.

(E) No earth or organic material shall be deposited or placed where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water. [Ord. 4281 § 12, 1993; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.080 Land clearing permit approval.

Land clearing shall be kept to a minimum. Vegetation removal shall be limited to that amount necessary for building, access, and construction as shown on the approved erosion control plan. The following provisions shall apply:

(A) When no land development permit has been issued, the following extents of land clearing require approval of a land clearing permit and an erosion-control plan according to the application processing and approval procedures in Chapter 18.10 SCCC for administrative minor permits, (Level III):

(1) Any amount of clearing in a sensitive habitat, as defined in this chapter.

(2) One-quarter acre or more of clearing in all areas not defined as sensitive habitat.

(B) When a land development permit has been issued, land clearing may be done according to the approved development plan.

(1) For land clearing in the Coastal Zone which will be more than that shown on the approved erosion-control plan, a new land-clearing permit approval is required if the land is located in a least-disturbed watershed, a water supply watershed, or an area of high erosion hazard.

(2) For land clearing in any area which will include more than one-quarter acre in excess of that shown on the approved plan, a new land-clearing permit approval is required.

(C) Approvals of land clearing permit requests shall be based upon review and placing conditions on plans as needed to ensure that the proposed activities incorporate or meet the following measures. All disturbed surfaces shall be prepared and maintained to control erosion and to establish native or naturalized vegetative growth compatible with the area. This control shall consist of:

(1) Effective temporary planting such as rye grass, barley, or some other fast-germinating seed, and mulching with straw and/or other slope stabilization material;

(2) Permanent planting of native or naturalized drought resistant species of shrubs, trees, etc., pursuant to the County's landscape criteria, when the project is completed;

(3) Mulching, fertilizing, watering or other methods may be required to establish new vegetation. On slopes less than 20 percent, topsoil shall be stockpiled and reapplied.

The protection required by this section shall be installed prior to calling for final approval of the project and at all times between October 15th and April 15th. Such protection shall be maintained for at least one winter until permanent protection is established.

(D) No land clearing shall take place prior to approval of the erosion control plan. Vegetation removal between October 15th and April 15th shall not precede subsequent permitted grading or construction activities by more than 15 days. During this period, erosion and sediment control measures shall be in place.

(E) Land clearing of more than one-quarter acre that is not a part of a permitted activity shall not take place on slopes greater than 30 percent. [Ord. 4496-C § 87, 1998; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.090 Winter operations.

(A) No land clearing operations greater than one-quarter acre per year per site or grading operations greater than 100 cubic yards may take place between October 15th and April 15th, unless authorized by the Planning Director and found to be consistent with the purposes of this chapter. When construction will be delayed due to the limitation on winter operations, the date for expiration of the permit shall be extended by that amount of time that work is delayed by this chapter.

(B) When winter operations are permitted, the following measures shall be taken to prevent accelerated erosion. Additional measures may be required:

(1) Between October 15th and April 15th, disturbed surfaces not involved in the immediate operations shall be protected by mulching and/or other effective means of soil protection as required by the Planning Director.

(2) All roads and driveways shall have drainage facilities sufficient to prevent erosion on or adjacent to the roadway or on downhill properties. Erosion-proof surfacing may be required by the Planning Director in areas of high erosion hazard.

(3) Runoff from a site shall be detained or filtered by berms, vegetated filter strips, and/or catch basins to prevent the escape of sediment from the site. These drainage controls shall be

maintained by the permittee and/or property owner as necessary to achieve their purpose throughout the life of the project.

(4) Erosion control measures shall be in place at the end of each day's work.

(5) The Planning Director shall stop operations during periods of inclement weather if he determines that erosion problems are not being controlled adequately. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.100 Overall responsibility.

It shall be the responsibility of the owner and the permittee to ensure that erosion does not occur from any activity during or after project construction. Additional measures, beyond those specified, may be required by the Planning Director as deemed necessary to control accelerated erosion. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.110 Exemptions.

Conditions of accelerated erosion existing prior to adoption of this chapter are not exempted. The intent of this section is not to invalidate existing discretionary permits, but rather to prevent or mitigate accelerated erosion. The following work is exempted from all provisions of this chapter except SCCC 16.22.040 and 16.22.160 through 16.22.190:

(A) Agricultural Activities. Permitted agricultural grading, routine agricultural activities such as plowing, harrowing, disking, ridging, listing, land planning, and similar operations to prepare a field for a crop, including routine clearing to maintain existing rangeland;

(B) Timber Harvesting. Work done pursuant to a valid timber harvest permit;

(C) Quarrying. Quarrying done pursuant to a valid quarry permit;

(D) Septic Systems and Wells. Work done pursuant to a valid permit for septic system installation and repair or well drilling; however, SCCC 16.22.080(B) and 16.22.090(B) shall apply, and sediment from these activities shall not be allowed to enter any stream or body of water;

(E) Resource Management. Clearing, fuel management, reforestation, erosion control, or other resource management programs carried out under the auspices of a government agency which include appropriate

erosion control measures. Agencies shall notify the Planning Director of such projects. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.120 Exceptions.

(A) A request for an exception from the provisions of this chapter, the permit conditions, or the plan specifications may be considered according to the application processing and approval procedures in Chapter 18.10 SCCC for administrative minor permits~~,~~(Level III):

(B) A request for an exception must state in writing the provision from which it is to be varied, the proposed substitute provisions, when it would apply, and its advantages. In granting the exception, the Planning Director shall find that:

(1) That there are special circumstances or conditions affecting the property.

(2) That the exception is necessary for the proper design and/or function of a reasonable project for the property.

(3) That adequate measures will be taken to ensure consistency with the purpose of this chapter.

(C) As contemplated in this section, an exception shall be granted for alternative methods of construction for projects which could be constructed under the basic standards established in this chapter, but which, if an exception is granted, can be better and/or more economically designed and constructed than if an exception were not given. An exception shall not be granted if the result of an exception would have the effect of allowing the construction of a project which would otherwise without the exception not be possible under the provisions of the County Code. [Ord. 3600 § 3, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.130 Fees.

Fees for checking, inspection, violations, variance requests, and for land-clearing permits shall be set by resolution of the Board of Supervisors. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.140 Inspection and compliance.

The Planning Director shall conduct inspections to ensure compliance with this chapter.

(A) Inspection. The following inspections may be performed by the Planning Director:

(1) Pre-Site Inspection. To determine the potential for erosion resulting from the proposed project.

(2) Operation Progress Inspections. To determine ongoing compliance.

(3) Final Inspection. To determine compliance with approved plans and specifications.

(B) Notification. The permittee shall notify the Planning Director at least 24 hours prior to start of the authorized work, and also nine business hours prior to any inspection requested by the permittee or permittee's authorized agent. [Ord. 4392A § 6, 1996; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.150 Applicable laws and regulations.

Any person doing work in conformance with this chapter must also abide by all other applicable local, State, and Federal laws and regulations. Where there is a conflict with other pre-existing County regulations, this chapter shall take priority. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.160 Violations.

(A) It shall be unlawful for any person to refuse or fail to correct any condition causing or likely to cause accelerated erosion as required by a notice of violation issued under the provisions of subsection (C) of this section.

(B) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any land clearing as defined in SCCC 16.22.030 unless either a development permit has been obtained and is in effect which authorizes such land clearing; or the land clearing is exempt from the requirement for a permit under the provisions of SCCC 16.22.080(A).

(C) It shall be unlawful for any person to exercise a development permit which authorizes land clearing without complying with all of the conditions of such permit.

(D) It shall be unlawful for any person to knowingly do, cause, permit, abet or furnish equipment or labor for any work in violation of a stop work notice from and after the date it is posted on the site until the stop work notice is authorized to be removed by the Planning Director.

(E) It shall be unlawful for any person to cause or allow the existence of a condition on any site that is causing or is likely to cause accelerated erosion as determined by the Planning Director.

[Ord. 3451-A § 12, 1983; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.161 Right of entry.

Repealed by Ord. 4392A. [Ord. 3451-A § 13, 1983].

16.22.162 Stop notices.

Repealed by Ord. 4392A. [Ord. 3451-A § 14, 1983].

16.22.163 Notification of violations.

Repealed by Ord. 4392A. [Ord. 3451-A § 15, 1983].

16.22.164 Nuisance abatement of violation.

Repealed by Ord. 4392A. [Ord. 3451-A § 16, 1983].

16.22.165 Recording notice of violation.

Repealed by Ord. 4392A. [Ord. 3451-A § 17, 1983].

16.22.170 Penalties.

Repealed by Ord. 4392A. [Ord. 3337 § 1, 1982].

16.22.180 Enforcement.

Repealed by Ords. 4392A. [Ord. 3337 § 1, 1982].

16.22.190 Appeals.

All appeals of actions taken pursuant to the provisions of this chapter shall be made in conformance to the procedures of Chapter 18.10 SCCC. [Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

Exhibit H

County Code Chapter 16.20
Grading Regulations

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Chapter 16.20
GRADING REGULATIONS

Sections:

16.20.010 Purpose.

The purpose of this chapter is to safeguard health, safety, and the public welfare; to minimize erosion and the extent of grading; to protect fish and wildlife; to protect the watersheds; to ensure the natural appearance of grading projects; and to otherwise protect the natural environment of Santa Cruz County. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.020 Scope.

This chapter sets forth rules and regulations to control all grading, including excavations, earthwork, road construction, dredging, diking, fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspections. This chapter shall apply to both private and public activities including those of the County and other such governmental agencies as are not exempted by State or Federal law. [Ord. 4166 § 1, 1991; Ord. 4027 § 3, 1989; Ord. 3599 § 1, 1984; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.025 Amendment.

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 13.03SCCC, and shall be subject to approval by the California Coastal Commission. [Ord. 3321 § 1, 1982].

16.20.030 Definitions.

All definitions shall be as defined in the General Plan or Local Coastal Program Land Use Plan glossaries, and as follows:

~~"~~Agricultural grading" means any grading which takes place on land designated on the County's agricultural resource maps for exclusive agricultural use as specified in SCCC 16.50.040; provided, however, that agricultural grading does not include any grading on such lands connected with the construction of access roads or building sites; except greenhouse sites. Agricultural grading also does not include the movement of earth defined as agricultural work in SCCC 16.20.050(I).

-Bedrock" means the in-place solid, undisturbed material either at the ground surface or beneath superficial deposits of gravel, sand or soil.

-Bench" means a relatively level step excavated into earth material.

-Civil engineer" means a professional engineer registered in California to practice civil engineering.

-Clearing" means the removal of vegetation down to bare soil, whether by hand, machine or any other method.

-Compaction" means the densification of earthen solids.

-Contractor" means any person licensed in the State of California to do grading as defined by State law.

-Diking" means construction of an earthen dam to control or confine water.

-Drainage course" means a natural or manmade channel which conveys storm runoff either year-round or intermittently.

-Dredging" means scooping or digging of earth material from the bed of a body of water.

-Driveway" means any private road leading from the street to two or fewer habitable structures or parcels. (See -roadway.")

-Earth material" means rock, natural soil, sand or combination thereof.

-Erosion" means the wearing away of the ground surface as a result of movement of wind, water or ice.

-Excavation" means the mechanical removal of earth material, or a cavity formed by cutting, digging or scooping.

-Existing grade" means the grade prior to grading.

-Fill" means the deposition of earth or other material by artificial means for any purpose, for any length of time, including the stockpiling of material, or the conditions resulting therefrom.

-Finish grade" means the final grade of the site which conforms to the approved plan.

-Grade" means the vertical location of the ground surface, or the degree of rise or descent of a slope.

~~G~~rading" means excavating, or filling, dredging, diking, prospecting, exploratory mining operation or combination thereof.

~~K~~ey" means a designed compacted fill placed in a trench excavated in undisturbed earth material or rock beneath the toe of a proposed fill slope for the purpose of developing a shearing resistance (see Figure 1).

Figure 1

~~L~~and disturbance" means clearing, excavating, grading or other manipulation of the terrain.

~~L~~ittoral cell" means a continuous section of shoreline within which sand moves in a prevailing direction in response to seasonal current.

~~P~~ermittee" means the property owner, or any contractor or other person undertaking grading upon the property of the property owner, pursuant to a permit granted according to the provisions of this chapter.

~~P~~lanning Director" means the Director of the Planning Department or designee.

~~P~~rofessional geologist" means a geologist who is licensed by the State of California to practice geology

~~R~~iparian corridor" means any of the following:

(1) Lands within a stream channel, including the stream and the area between the mean rainy season (bankfull) flowlines;

(2) Lands extending 50 feet (measured horizontally) out from each side of a perennial stream. Distance shall be measured from the mean rainy season (bankfull) flowline;

(3) Lands extending 30 feet (measured horizontally) out from each side of an intermittent stream. Distance shall be measured from the mean rainy season (bankfull) flowline;

(4) Lands extending 100 feet (measured horizontally) from the high water mark of a lake, wetland, estuary, lagoon or natural body of standing water;

(5) Lands containing a riparian woodland;

(6) Lands within an arroyo located within the urban services line, or the rural services line.

~~R~~oad gradient (percent)" means a vertical rise multiplied by 100 and divided by horizontal run.

~~R~~oad" or ~~r~~oadway" means an open way for vehicular traffic serving more than two habitable structures or parcels. (See ~~d~~riveway.")

~~S~~ecurity" means a cash deposit, time certificate of deposit or equivalent security acceptable to the County.

~~S~~ite" means a parcel of land or contiguous combination thereof, where grading is performed or proposed.

~~S~~lope" means an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance. (See Table A and Figure 2.)

Table A

Ratio		Percent	Degrees
	1:1 =	100% =	45
	2:1 =	50% =	22
	3:1 =	33% =	15
	4:1 =	25% =	11
	5:1 =	20% =	9

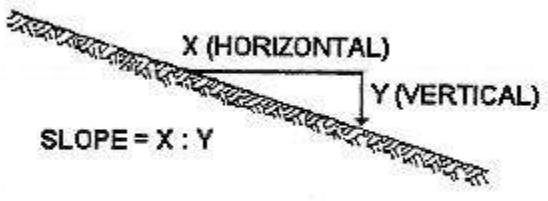


Figure 2

~~S~~oil" means naturally occurring superficial deposits of earth material overlying bedrock.

~~S~~oil (geotechnical) engineer" means a Professional Civil Engineer, licensed in the State of California, experienced and knowledgeable in the practice of soil and foundation engineering.

~~S~~tream" means any watercourse as designated by a solid line or dash and three dots symbol shown on the largest scale of the United States Geological Survey map most recently published, or as indicated in the grading permit when it has been field determined that a watercourse either:

(1) Supports fish at any time of the year; or

(2) Has a significant water flow 30 days after the last significant storm; or

(3) Has a channel, free of soil and debris.

~~T~~errace" means a relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

~~W~~aterbreak" means a ditch, dike, dip or combination thereof, constructed to effectively divert water as an aid to erosion control.

~~W~~inter season" means October 15th through April 15th. [Ord. 4346 § 67, 1994; Ord. 3599 § 2, 1984; Ord. 3321 § 1, 1982; Ord. 2972, 1980; Ord. 2500, 1977].

16.20.040 Approval required.

Except as exempted by SCCC 16.20.050, no person shall do, cause, permit, aid, abet, suffer or furnish equipment or labor for any grading until a grading permit has been obtained for the project. A separate permit shall be required for each site and shall be obtained as follows:

(A) Planning Commission. All permit approvals for grading in excess of 8,000 cubic yards, or for which an environmental impact report was prepared, or for grading in excess of 1,000 cubic yards which is visible from a scenic corridor roadway, as designated in the Local Coastal Program Land Use Plan, shall be processed according to Chapter 18.10 SCCC as an administrative permit with notice, Level VI.

(B) Planning Director. All other grading permits shall be processed according to Chapter 18.10 SCCC as a minor administrative permit, Level III.

(C) Subdivisions. The Public Works Director is hereby authorized and directed to enforce the provisions of this chapter for grading done within parcel map subdivisions for which improvement plans have been signed by the Public Works Director or within subdivisions for which a final map has been recorded or for property on which a tentative subdivision map has been approved and grading is permitted prior to recording of a final map. Grading permits are not issued by the Planning Director for subdivision work administered by the Director of Public Works. [Ord. 3636 § 1, 1985; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.050 Exemptions.

The following work is exempt from the provisions of this chapter; however, it remains subject to the riparian corridor protection ordinance (Chapter 16.30 SCCC), the County environmental review regulations (Chapter16.01 SCCC), the erosion control ordinance (Chapter 16.22 SCCC), the geological hazard ordinance (Chapter 16.10 SCCC), the sensitive habitat protection ordinance (Chapter 16.32 SCCC), and the County Native American cultural sites ordinance (Chapter 16.40 SCCC). The following work may also be subject to other requirements imposed in County and State law.

(A) Excavations. An excavation which does not exceed 100 cubic yards and which does not create a cut slope greater than five feet in depth.

(B) Fills. A fill containing earth material only which is less than two feet in depth, is placed on natural terrain which has a slope flatter than five horizontal to one vertical, does not exceed 100 cubic yards on any one site, does not alter or obstruct a drainage course, and will not be used for structural support.

(C) Basements, Footings. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill as provided under subsection (B) of this section made with the material from such excavation, nor exempt any excavation having an unsupported height greater than five feet after the completion of such structure.

(D) Cemeteries. Cemetery graves.

(E) Refuse Disposal. Refuse disposal sites which are permitted and actually being controlled pursuant to other County regulations, and excavations for individual and community sewage disposal systems, made pursuant to permit.

(F) Wells and Utilities. Excavations for wells or utilities.

(G) Mining and Quarrying. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay materials, pursuant to a County permit.

(H) Soil Testing. Exploratory excavations under the direction of a soils engineer or professional geologist where such excavation is to be returned to the original condition under the direction of such engineer or geologist within 45 days after the start of work.

(I) Agricultural Work. Routine plowing, harrowing, disking, ridging, listing, land planing, and similar operations necessary to prepare a field for a crop for continued agricultural use. (All other agricultural grading shall be subject to the procedures of SCCC 16.20.195.)

(J) Timber Harvesting. Work done pursuant to a valid timber harvesting permit.

(K) County Public Works. Routine maintenance and other work undertaken by the County Department of Public Works that does not impact an environmental resource of hazardous or critical concern where designated, mapped and officially adopted pursuant to law by Federal or State agencies, or by the Santa Cruz County Board of Supervisors, or where identified through field or technical investigation. [Ord. 4496-C § 83, 1998; Ord. 3599 § 3, 1984; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.055 Special exemption for prevention or mitigation of Pajaro River/Salsipuedes Creek flooding.

(A) In areas outside of the Coastal Zone, the operation, repair and maintenance of the Pajaro River and Salsipuedes Creek levees and the areas within the levees, for the purpose of restoring flood conveyance capacity, including bench excavation, sediment removal, and similar projects shall be exempt from the provisions of this chapter if all of the following conditions are met:

(1) The work is conducted by or under the direction of the Department of Public Works;

(2) The work is in accordance with a streambed alteration agreement approved by the California Department of Fish and Game, to the extent that such an agreement is required; and

(3) The project has been subjected to environmental review with the County of Santa Cruz serving as the lead agency. [Ord. 4790 § 1, 2005; Ord. 4374 § 1, 1995].

16.20.060 Application.

Applications for grading permits granted pursuant to this chapter shall be made in accordance with the applicable requirements of Chapter 18.10 SCCC and shall include the following:

(A) General. An application for a grading permit shall be submitted by the owner(s) of the property or agent when authorized in writing. The application shall be signed by the owner(s) of each site or their designated representative, as defined under SCCC 16.20.030. A civil engineer or other licensed professional authorized by State law shall prepare and sign the plans and specifications if grading will be in excess of 2,000 cubic yards. Special design requirements for dredging and diking shall be determined by the Planning Director.

(B) The application shall be accompanied by all fees required by SCCC 16.20.120.

(C) Plans and Specifications. Two sets of plans shall be required by the Planning Director. Plans shall be drawn to scale upon substantial material, minimum size 18 inches by 24 inches, and shall be of sufficient clarity to indicate the nature and the extent of the work proposed and show in detail that it will conform to the provisions of this chapter and all relevant laws and regulations. The plans shall include but not be limited to the following information, in writing and/or diagrams as required by the Planning Director:

(1) A statement as to the specific intentions or ultimate purpose for which the grading is being done.

(2) General location of the proposed site.

(3) Property lines and contours of the existing ground and details of terrain and area drainage.

(4) Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.

(5) Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains. The location of any ravines and drainage courses and the pathway of offsite drainage shall be indicated.

(6) Location of buildings or structures on the property where the work is to be performed and the approximate location of buildings or structures on adjacent land owned by other owners which is within 15 feet of the property line or which may be affected by the proposed operations.

(7) A statement of the quantity of excavation and fill.

(8) Specifications, if required, shall contain information covering construction and material requirements.

(9) An erosion control plan and erosion prevention measures for all surfaces exposed or expected to be exposed during grading activities, in accordance with the requirements of the erosion control ordinance (Chapter 16.22 SCCC) shall accompany every proposed grading plan.

(10) Revegetation proposal for all surfaces exposed or expected to be exposed during grading activities.

(11) Name and address of the owner(s).

(12) Assessor's parcel number(s) of the property on which the work is to be done.

(13) Location of on-site trees.

(14) When required by the Planning Director, each application for a grading permit shall be accompanied by supporting data consisting of a soil engineering report and/or engineering geology report. The soil engineering report shall include data regarding the nature, distribution and strength of existing soils; conclusions and recommendations for grading procedures; design criteria for corrective measures when necessary; and opinions and recommendations covering adequacy of sites to be developed by the proposed grading. The engineering geology report shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading. Recommendations included in the reports and accepted by the Planning Director shall be incorporated in the grading plans and specifications.

(15) When required by the Planning Director because it appears that the location of property line may be in question in connection with the proposed grading, a parcel survey or other boundary evidence deemed necessary by the Planning Director shall be provided.

(D) Starting and Completion Dates. Each application for a grading permit shall state estimated starting and completion dates. [Ord. 3599 § 4, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.070 Exceptions.

(A) A request for an acception from the provisions of this chapter, the approval conditions, or the plan specifications, may be approved, conditionally approved, or denied according to Chapter 18.10 SCCC at the level specified in SCCC 16.20.040(A) and (B). A request for a exception must state in writing the provision from which it is to be varied, the proposed substitute provision, when it would apply and its advantages. The following findings shall be required for approval of an exception:

(1) That there are special circumstances or conditions affecting the property; and

(2) That the exception is necessary for the proper design and/or function of the project.

(B) No exception shall be granted unless the project, with such exception, is consistent with the purpose of this chapter.

(C) As contemplated in this section, a exception shall be granted for alternative methods of construction for projects which could be constructed under the basic standards established in this chapter, but which, if a exception is granted, can be better and/or more economically designed and constructed than if a exception were not given. A exception shall not be granted if the result of a exception would have the effect of allowing the construction of a project which would otherwise, without the exception, not be possible under the provisions of the County Code.

(D) Fees for exceptions shall be set by resolution of the Board of Supervisors. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.080 Approval limitations and conditions.

(A) Issuance. The issuance of a grading permit shall constitute an authorization to do only that work which is described or illustrated on the application for the permit or on the approved plans and specifications.

(B) Plan Checking. The application, plans, and specifications filed by an applicant for a grading permit shall be checked by the Planning Director within 30 days after receipt of all information required for issuance of the permit. The Planning Director shall notify the applicant in writing within 30 days of any deficiencies. The Planning Director or Planning Commission shall approve an application for approval grading permit if the plans filed therewith conform to the requirements of this chapter, zoning ordinances, use permit and design review conditions and other applicable laws.

(C) Denial of Grading Permit.

(1) An application for a grading, dredging or diking permit shall be denied if the Planning Director or Planning Commission makes any of the following findings:

(a) That the design of the proposed site is not consistent with the applicable general and specific plans adopted pursuant to Chapters 13.01 and 13.03 SCCC.

(b) That the proposed grading plan for the development contemplated does not comply with the requirements of the Santa Cruz County Code.

(c) If the project is for the creation of a building site, that adequate sewage facilities and water supplies cannot be provided.

(d) If the project as proposed will cause excessive and unnecessary disturbance of the site particularly as defined in SCCC 16.10.050.

(2) An application for a grading permit shall be denied if the work proposed would be hazardous by reason of flood, geological hazard, or unstable soils; be liable to endanger other properties or result in the deposition of debris on any public way, property, or drainage course; or otherwise create a hazard.

(3) An application for a grading permit which would create unavoidable adverse environmental impact shall be denied.

(4) An application for grading in a riparian corridor shall be denied if it is not in conformance with other chapters of the County Code which regulate development activity in riparian corridors.

(5) An application for a grading permit to place fill within a flood hazard area shall be denied, unless the fill is in conformation with the Floodplain Management Regulations (SCCC 16.13.6100.

(6) The Planning Director shall notify the applicant in writing of a denial or conditional denial and shall state the reasons therefor.

(D) Restriction on Certain Grading Permits. If the project is for the creation of, or access to, a building site, land disturbance shall not take place until a building permit has been issued. If agrading permit cannot be issued until a determination of adequate water source and sewage disposal or other required site investigation is made, land disturbance shall be limited to the extent necessary to allow such an investigation. This provision shall not apply to improvements or road construction required as a condition of approval of a minor land division or other permit.

(E) Conditions of Approval. In granting any grading permit under this chapter, the Planning Director or Planning Commission shall attach such conditions as necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

(1) Improvement of any existing grading project to bring it up to the standards of this chapter.

(2) Requirements for fencing of excavations or fills which would otherwise be hazardous.

(3) Haul routes for materials.

(4) Conditions recommended by the Environmental Coordinator.

(5) Conditions recommended by a geological hazard review.

(6) Check dams, cribbing, riprap or other devices which may be required to prevent erosion.

(7) Mulching, fertilizing, watering or other methods may be required to establish new vegetation. On slopes less than 20 percent, stockpiling and reapplication of topsoil shall be required, unless it can be shown that adequate erosion control measures, as per the erosion control ordinance (Chapter16.22 SCCC), can be implemented.

(8) Dust from grading operations shall be controlled.

(9) No earth or organic material shall be deposited or placed where it may be deposited into a stream, marsh, slough, lagoon or body of standing water in a quantity deleterious to wildlife, aquatic life, or other beneficial uses of the water.

(F) Approved Grading Plans. When the Planning Director issues the grading permit, all of the plans and specifications shall be endorsed —approved." Such approved plans and specifications shall not be changed, modified, or altered without written authorization by the Planning Director, and all work shall be done in accordance with the approved plans and this chapter.

(G) Amendment. Amendments to permit approvals granted pursuant to this chapter whether for minor change of project, conditions, or expiration date or other time limits, shall be processed in accordance with the applicable provisions of Chapter 18.10 SCCC, as a minor administrative permit (Level III), Major changes of a project shall be processed at the level specified in SCCC 16.20.040(A) and (B).

(H) Retention of Plans. One set of plans and specifications shall be retained by the Planning Director for a period of not less than two years from the date of completion of work covered therein. Plans which have been submitted for checking and for which no permit is issued may be destroyed by the Planning Director if not picked up by the applicant within 120 days.

(I) Posting of Permit. At the time a grading permit is issued, the County shall also issue the permittee a notice of permit form or forms. The permittee shall cause such form or forms to be posted on the property at a place at which such form or forms can easily be seen from any public or private road or from adjacent properties during any time that grading is taking place on the property. A copy of the plans shall be attached to the notice of permit or, in lieu thereof, a brief description in writing and diagrams of the permitted grading.

(J) Work Time Limits. The permittee shall fully perform and complete all of the work required to be done within the time limit specified. If no time limit is specified, the permittee shall complete the work within 180 days after the date of the issuance of the grading permit.

If the permittee is unable to complete the work within the specified time, he shall, prior to the expiration of the permit, present in writing a request for an extension of time, setting forth the reasons for the requested extension. If, in the opinion of the Planning Director, an extension is warranted, additional time may be granted for the completion of the work.

(K) Working Hours. Hours of grading operation shall be between 7:00 a.m. and 6:00 p.m. on weekdays. No grading shall be permitted on Saturdays, Sundays, and holidays, unless specifically authorized as part of an exception approved by the Planning Director.

(L) Expiration. Unless otherwise specified, grading permit approvals issued pursuant to this chapter shall expire one year from the date of issuance if not exercised. Where approvals are issued in conjunction with a development permit granted pursuant to Chapter 18.10 SCCC the grading permit approval shall expire in accordance with the provisions of Chapter 18.10 SCCC.

(M) Safety Precautions. The permittee shall take all appropriate and necessary precautions to protect adjacent public and private property from damage that may result from the operations.

(N) Property Lines. Whenever the location of a property line is in question as the result of or during operations, the Planning Director may require any boundary evidence which the Planning Director deems necessary. The Planning Director may require the applicant to furnish a parcel survey.

(O) Inclement Weather and Winter Grading. The Planning Director shall stop grading during periods of inclement weather when weather-generated problems are not being controlled adequately. No grading shall occur during the winter season (October 15th through April 15th), unless authorized in advance by the Planning Director with reference to the erosion control ordinance.

(P) Validity. The issuance or granting of approval of grading plans and specifications shall not be construed to be approval of any violation of any of the provisions of this chapter or of any other law.

The issuance of a grading permit based on plans and specifications shall not prevent the Planning Director from thereafter requiring the correction of errors in plans and specifications or from preventing operations from being carried on when in violation of this chapter or of any other law.

(Q) Suspension or Revocation of Grading Permit Approval. The Planning Director may, in writing, suspend or revoke a grading permit approval issued under provisions of this chapter whenever the approval is issued in error or on the basis of incorrect information supplied, or in violation of any law or regulation or any of the provisions of this chapter. [Ord. 3599 § 5, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.090 Environmental review.

Applications for grading permits shall be reviewed by the Environmental Coordinator pursuant to Santa Cruz County environmental review regulations. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.100 Hazardous conditions.

Whenever the Planning Director determines that an excavation, embankment, or fill has become a hazard to life and limb, endangers property, or adversely affects the safety, use, or stability of a public way or drainage channel, he or she shall notify in writing the owner(s) of the property or other person or agent in control of the property on which the hazard exists. On receipt of the notice, the owner(s) shall within the period specified eliminate the hazard and bring the property into conformance with the requirements of this chapter. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.110 Diking, dredging and filling.

(A) A grading permit is required for diking, dredging, and filling of open coastal waters above the ordinary high water line, wetlands, lagoons, estuaries and lakes. An approval shall be issued only for the following purpose and only where there is no other feasible, less environmentally damaging alternative:

(1) Restoration purposes, including the protection and enhancement of existing harbors.

(2) Nature study, aquaculture, or similar resource-dependent activities.

(B) Diking, filling, and dredging in existing estuaries and wetlands is permitted only if it is determined that such activities will maintain or enhance the functional capacity of the wetland or estuary, as determined by the Planning Director.

(C) The dredged material shall be redistributed into the same littoral cell from which it was taken. The deposition of such dredged materials must be timed and located so as not to interfere with shoreline processes, longshore current systems, and public use. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.115 Shoreline protection structures.

A grading permit approval shall be required for all shoreline protection structures which involve the placement of rocks, blocks, or fill material in the coastal hazard zone, including the placement of less than 100 cubic yards of material and maintenance and repair. The design of the proposed structure shall conform to the County's geologic hazard ordinance, Chapter 16.10 SCCC, as determined by the Planning Director. Information including, but not limited to, geologic reports, engineered plans, beach sand profiles and structural profiles shall be required as deemed necessary by the Planning Director. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.116 Emergency permit approvals.

(A) Emergency grading permit approvals may be granted at the discretion of the Planning Director when a sudden, unexpected occurrence involving a clear and present danger demands immediate action to prevent loss of or damage to life, health, property or essential public services. The emergency grading permit shall conform to the objectives of this chapter and the geologic hazards ordinance, Chapter 16.10 SCCC. The Planning Director may request, at the applicant's expense, verification by a qualified professional of the nature of and solutions to the emergency situation.

(B) The emergency work authorized under the emergency permit approval shall be limited to necessary activities to protect the endangered structure or essential public structure. The emergency permit shall be voided if the approval is not exercised within 15 days of issuance. The emergency permit approval expires 30 days after commencement of work. Any work completed outside of these time periods requires a regular grading permit approval unless an extension is granted by the Planning Director.

(C) At the time of application for an emergency grading permit approval or within 60 days of issuance of the emergency grading permit the applicant shall submit a completed application and the appropriate fees for a regular grading permit.

(D) Within 90 days of the issuance of an emergency grading permit, the owner of the property shall submit all required technical reports and project plans unless a time extension is granted by the Planning Director. If the information described above is not submitted within the specified time, the emergency grading permit shall be voided and the emergency work shall be considered a violation of this chapter.

(E) If the emergency work is required during nonbusiness hours, the property owner shall submit an emergency grading permit application on the following business day. [Ord. 3599 § 6, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.120 Fees.

Fees for processing grading permit application and requests for exceptions shall be set by resolution of the Board of Supervisors.

(A) Grading Permit Fees—Subdivision. No plan-checking or grading permit fees shall be charged for a grading approval for property for which a final subdivision map has been recorded (or a tentative subdivision map has been approved subject to a specific condition that grading will be permitted prior to recording of the final map); provided, that all of the contemplated grading is shown on approved improvement plans pursuant to Chapter 14.01 SCCC. Costs for plan checking and construction inspection for compliance with this chapter shall be determined in the same manner as fees provided in SCCC 14.01.506. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.130 Securities.

Approvals for grading shall not be valid and work shall not be started until the required securities have been provided. Securities shall remain in effect one winter after final inspection and approval of completed work. All expenditures by the County for corrective work necessary because of the permittee's failure to comply with the provisions of the grading permit and this chapter shall be charged against the security.

(A) If a grading is in excess of 2,000 cubic yards the permittee shall provide a cash deposit, time certificate of deposit, or equivalent security, acceptable to the County, payable to the County to insure compliance with the provisions of the grading permit approval and this chapter.

(B) If deemed necessary by the Planning Director, a similar security, acceptable to the County, may be required for grading operations of less than 2,000 cubic yards.

(C) The amount of security for grading shall be based on the number of cubic yards of material of either excavation or fill, whichever is larger, plus the cost of drainage or other protective devices. The minimum amount required shall be computed as indicated in the following schedule:

(1) Two thousand to 10,000 cubic yards: $0.50 per cubic yard, plus the cost of drainage or other protective devices.

(2) Ten thousand and one cubic yards or more: $5,000 plus $0.25 per cubic yard for each additional cubic yard in excess of 10,000, plus the cost of drainage or other protective devices.

(D) No separate grading security except for security required for winter grading operations shall be required for work on which a final subdivision map has been recorded (or a tentative subdivision map has been approved subject to a specific condition that grading will be permitted prior to recording of the final map); provided, that all of the contemplated grading is shown on approved improvement plans pursuant to Chapter 14.01 SCCC and the amount of the subdivision improvement, performance, labor and material securities is sufficient to cover all grading.

(E) A separate security for any grading operations authorized during the winter, between October 15th and April 15th, may be required if deemed necessary by the Planning Director. [Ord. 3599 § 7, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.140 Design standards for excavations.

(A) Slope. Cut slopes shall be no steeper than one and one-half horizontal to one vertical. Steeper slopes may be allowed if the Planning Director determines they will be stable or if a civil engineer or professional geologist provides a written statement that the site has been investigated and that in his or her opinion the proposed deviation will be and remain structurally stable. The tops of cut slopes shall be rounded off so as to blend in with the natural terrain. (See Figure 3.)

(B) Drainage and Terraces. Drainage and terraces shall be provided as required by SCCC 16.20.170.

(C) Vegetation Removal. No vegetation removal or grading pursuant to a permit will be allowed which will result in erosion. Vegetation removal shall conform to SCCC 16.22.080. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.150 Design standards for fills.

(A) General. Unless otherwise recommended in the soil engineering report approved by the Planning Director, fills shall conform to the provisions of this section.

(B) Fill Location. Fills shall not be constructed on natural slopes steeper than two to one unless a civil engineer devises a method of placement which will assure the fill will remain in place. The toe of a fill shall be no closer than 12 feet horizontally to the top of existing or planned cut slopes (See Figure 3).

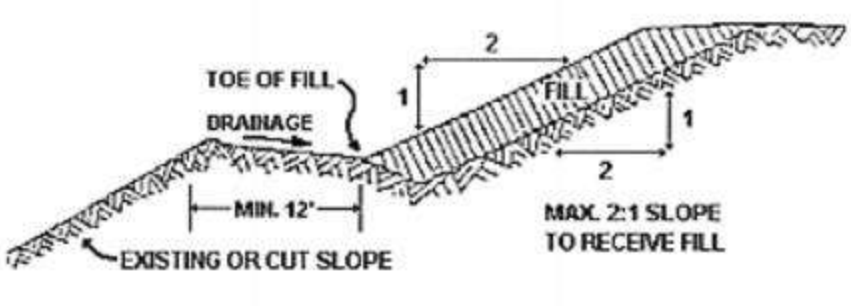


Figure 3

(C) Preparation of Ground for Fill. The ground surface shall be prepared to receive fill by the removal of topsoil and other unsuitable materials and by keying into sound bedrock or other suitable material.

(D) Material Permitted. Earth material free from tree stumps, organic matter, trash, sod, peat and similar material shall be used in fills. Rock, cobbles, and similar material shall be distributed and not nested or piled together, and pieces larger than 12 inches in greatest dimension shall not be used unless a method of placement is approved by the Planning Director. Organic material may be used in the top 12-inch layer of fills to aid plant growth.

(E) Fill Slopes. No fill shall be made which creates an exposed surface steeper in slope than two horizontal to one vertical. The Planning Director may allow a steeper slope or require a flatter slope if he or she finds this consistent with stability and safety.

(F) Compaction of Fills. All fills shall be compacted to a minimum of 90 percent of relative maximum density as determined by ASTM D-1557-70, or CALTRANS test method number California 216. Compaction tests may be required.

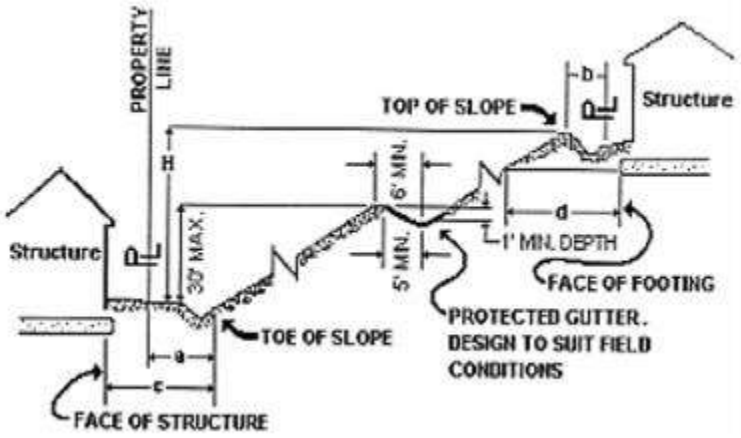
(G) Drainage and Terraces. Drainage facilities and terraces shall be provided as required by SCCC 16.20.170. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.160 Cut and fill slope setback.

Unless otherwise recommended in the approved engineering report and shown on the approved grading plans, the tops and toes of cut and fill slopes shall be set back from property boundaries and structures, as per Table C and the riparian corridor protection ordinance (Chapter 16.30 SCCC).

Table C

H	a	b	c	d
0—10 feet	3 feet	2 feet	5 feet	5 feet
11—30 feet	(H/2) feet	3 feet	(H/2) feet	7 feet
31 feet and over	15 feet	3 feet	15 feet	10 feet



[Ord. 3321 § 1, 1982].

16.20.170 Design standards for drainage facilities and terraces.

(A) General. Drainage facilities and terraces shall conform to the provisions of this section unless otherwise indicated on the approved permit and grading plan.

(B) Drainage Facilities.

(1) Existing drainage courses shall not be obstructed and alterations to them must conform to the provisions of this section.

(2) Drainage facilities shall be provided to carry surface and subsurface waters to the nearest drainage course designated for such purpose by the Planning Director or on-site dry wells. Discharge of waters onto natural ground may be allowed only if a suitable means is provided for reducing the velocity of flow to prevent erosion.

(3) Culvert sizes shall be in accordance with —County Design Criteria, Part 2, Storm Drainage." Minimum diameter shall be 12 inches. Culvert material shall be clay, cast iron, cast-in-place or pre-cast concrete, corrugated steel, aluminum, asbestos-cement or other materials approved by the Planning Director.

(4) Cuts, fills, and retaining walls shall have subsurface drainage facilities if necessary for stability.

(5) Gutters, berms and/or culverts may be required for roads and driveways to control water runoff.

(6) Berms, ditches, or swales shall be constructed at the top of cut and fill slopes for protection against water runoff.

(C) Terraces. Terraces shall be required on cut and fill slopes at not more than 30-foot vertical intervals to control surface water and debris. (See figure in Table C.)

(1) Terraces shall be at least six feet wide.

(2) All swales or ditches on drainage terraces shall be graded to provide suitable drainage and designed to prevent erosion.

(3) Swales or ditches which collect water from a tributary area exceeding one-third of an acre (measured horizontally) shall have down drains. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.180 Design standards for rural private roads and driveways.

(A) All private road and driveway construction requiring a grading permit shall conform to the provisions of this section and the access standards in the Fire Hazards section of the General Plan Safety Element.. These requirements may be modified for emergency access, temporary roads, or roads leading to an agricultural building or well site if approved in writing by the Planning Director.

(B) Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet. Areas within 10 feet on each side of portions of highways, public and private streets and roads which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth, and maintained,

consistent with the defensible space requirements for the 30 – 100-foot zone around structures. Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, succulents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

Exceptions:

Outside the Urban Services Line: Access roads shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

Inside the Urban Services Line: Inside of the Urban Services Line, private access roads extending from a public road shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, subccelents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

(C) No roadway in the State Responsibility Area shall have an inside turning radius of less than 50 feet, with minimum centerline turning radius of 35 feet in other areas. Roadways with a radius curvature of 50 to 100 feet shall require an additional 4 feet of road width. Roadways with radius curvatures of 100 to 200 feet shall require an additional 2 feet of road width.

(D) The maximum grade of the access road shall not exceed 20 percent (18 percent average), with grades greater than 15 percent not permitted for distances of more than 200 feet at a time, and grades not exceeding 16 percent in State Responsibility Area.

(E) The access road surface shall be —all weather", which is defined based on road gradient as follows: zero to five percent gradient - a minimum of six inches of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction and shall be maintained; five to fifteen percent gradient – the required base rock shall be overlain by oil and screenings; greater than fifteen percent grade - the required base rock shall be overlain by 2 inches of asphaltic concrete and shall be maintained.

(F) Where the subgrade is designated as an expansive clayey soil, the structural section should be determined using the California Design Procedure.

(I) Asphalt or concrete berms or their equivalent may be required to control drainage. Discharge shall be at points of natural drainage courses with energy dissipaters installed where necessary to prevent erosion.

(J) Entrances from private roads or driveways into private roads shall be limited in gradient as shown by Figure 4.

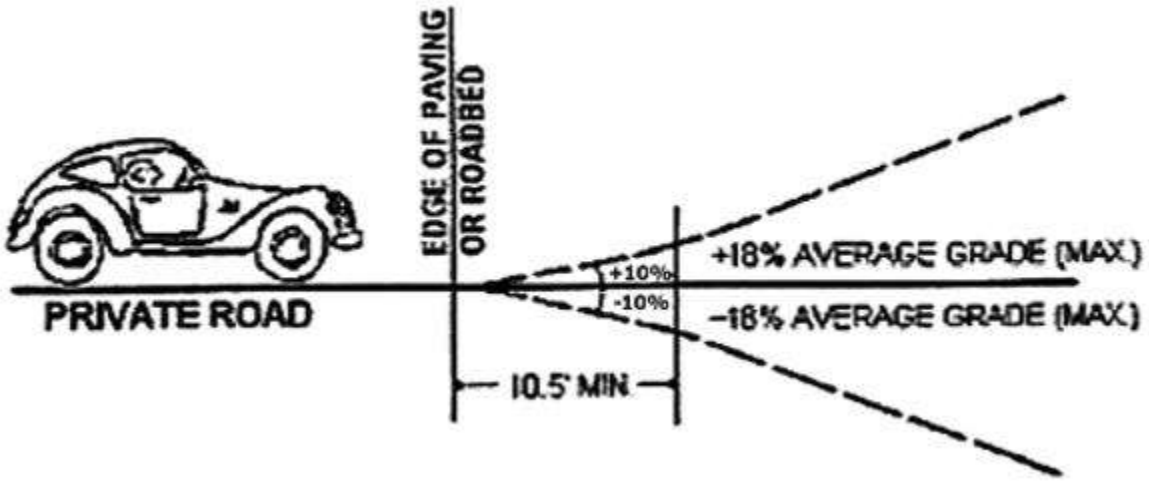


Figure 4. Private Road or Drive

(K) A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length.

(L) The access road shall have a vertical clearance of 15 feet for its entire width and length, including turnouts in State Responsibility Area, and 13 feet, 6 inches in other areas.

(M) Where a private driveway will connect to a County-maintained road, an encroachment permit shall first be obtained from the Public Works Department. [Ord. 4678 § 1, 2002; Ord. 4578 § 5, 1999; Ord. 3599 § 8, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.195 Agricultural grading.

(A) General. All permit approvals for agricultural grading shall be issued by the Planning Director. Applicants for an agricultural grading permit shall submit a plan to the Planning Director, including the following:

(1) Existing and proposed drainage pattern.

(2) Estimate of earth to be moved.

(3) Property map with graded area shown.

(4) Erosion control measures to be taken on disturbed noncrop areas, including long-term maintenance.

(5) Cross-sections of the proposed grading project. Applications for grading for access roads and for building sites, except greenhouse sites, shall not be processed under this section.

(B) Water Retention. The Planning Director may require review or design by the United States Department of Agriculture Soil Conservation, the Santa Cruz County Resource Conservation District, or a soils engineer for the following projects:

(1) On-site water retention (ponds).

(2) Grading with major erosion potential.

The conditions of the design or review shall be part of the permit.

(C) Special Review. The Planning Director can require review of the proposed agricultural grading by the Agricultural Policy Advisory Commission.

(D) Design Standards for Agricultural Grading. Specifications of design for agricultural grading shall be consistent with agricultural practices and needs, and shall assure slope stability, soil conservation, and flood hazard protection. Reference to agricultural grading may be required to be recorded in the deed by the Planning Director as a condition of permit approval.

(E) Permit Processing. Agricultural grading permit applications shall be processed within 30 days of receipt. Provisions should be made for emergency processing at the discretion of the Planning Director.

(F) Fees and Bonds. The fee for agricultural grading permits shall be set by resolution of the Board of Supervisors. No surety bonds are required. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2972, 1980].

16.20.200 Inspection and compliance.

The Planning Director shall conduct inspections to ensure compliance with this chapter.

(A) Inspection. The following inspections shall be performed by the Planning Director or designee.

(1) Pre-Site Inspection. To determine the suitability of the proposed grading project.

(2) Grading operation progress.

(3) Final Inspection. To determine compliance with plans and specifications.

(B) Notification. The permittee shall notify the Planning Director 24 hours prior to the start of the authorized work and also 24 hours prior to any inspection requested by permittee or permittee's authorized agent.

(C) Right of Entry. The filing of an application for a grading permit constitutes a grant of permission for the County to enter the development area for the purpose of administering this chapter from the date of the application to the termination of the erosion control maintenance period. If necessary, the Planning Director shall be supplied with a key or lock combination or permitted to install a County lock.

(D) Final Inspection. Final inspection and approval of the building permit, development permit or parcel approval shall not occur until the project is in compliance with all of the grading permit approval conditions and all of the provisions of this chapter. [Ord. 4281 § 12, 1993; Ord. 3599 § 9, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.210 Grading violations.

(A) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any grading as defined in SCCC 16.20.030 unless (1) a development permit has been obtained and is in effect which authorizes the grading, or (2) the grading is exempt from the requirement for a permit by the provisions of SCCC 16.20.040 and the provisions of Chapter 13.20 SCCC.

(B) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any diking, dredging, or filling of open coastal water above the ordinary high water line, or of wetlands, lagoons, estuaries, or lakes unless a grading permit has been obtained and is in effect which authorizes such activities.

(C) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any shoreline protection structures which involve the placement of rocks, blocks, or fill material in a coastal hazard zone unless a grading permit has been obtained and is in effect which authorizes such activities.

(D) It shall be unlawful for any person to exercise a development permit which authorizes grading without complying with all of the conditions of such permit.

(E) It shall be unlawful for any person to refuse or fail to abate a hazardous condition as required by a notice of hazardous condition issued by the Planning Director under the provisions of SCCC 16.20.100.

(F) It shall be unlawful for any person to knowingly do, cause, permit, aid, abet or furnish equipment or labor for any work in violation of a stop work notice from and after the date it is posted on the site until the stop work notice is authorized to be removed by the Planning Director.

(G) If the Planning Director determines that any grading occurring in the County does not comply with the approved grading permit or this chapter, he or she may stop all work until corrective measures have been completed. The site shall be posted with a ~~"~~stop work" notice. No building, septic tank, encroachment or other permit shall be issued by the County, and the County may require that all work shall be stopped pursuant to any such permits issued, until corrections have been made to the satisfaction of the Planning Director.

(H) Whenever the Planning Director determines that grading has been done without the required grading permit, he or she may refuse to issue a permit for the work already completed and require mitigating action. [Ord. 3451-A § 11, 1983; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.220 Transfer of responsibility.

If the civil engineer, the soil engineer or the professional geologist of record is changed during the course of the work, the work may be stopped until the replacement has agreed to accept the responsibility within the area of his or her technical competence for approving the work already accomplished. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.230 Completion and approval.

If a civil engineer or another professional licensed by State law prepared the grading plans, he or she shall provide a written statement to the Planning Director that all grading was completed in conformance with the provisions of the permit and this chapter. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.240 Recording notice of violation.

Repealed by Ord. 4392A. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.250 Removal of notice of violation.

Repealed by Ord. 4392A. [Ord. 3321 § 1, 1982].

16.20.260 Abatement of nuisance.

Repealed by Ord. 4392A. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.270 Penalties.

Repealed by Ord. 4392A. [Ord. 3321 § 1, 1982].

16.20.280 Appeals.

All appeals of actions taken pursuant to the provisions of this chapter shall be made in conformance to the applicable procedures of Chapter 18.10 SCCC. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

Exhibit I

General Plan Local Coastal Program
Chapter 6
Public Safety and Noise (strikethrough)

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Chapter 6

PUBLIC SAFETY ~~AND NOISE~~

- SEISMIC HAZARDS
- SLOPE STABILITY
- EROSION
- FLOOD HAZARDS
- FIRE HAZARDS
- HAZARDOUS AND TOXIC MATERIALS
- HAZARDOUS WASTE MANAGEMENT
- ELECTRIC AND MAGNETIC ENERGY
- ~~NOISE~~

CONTENTS

Language identified with (LCP) is not restricted to the Coastal Zone; language which includes the (LCP) initials is part of the Local Coastal Program and applies countywide unless specifically stated that the policy, etc., is limited to the coastal zone.

AUTHORITY AND PURPOSE

~~This chapter combines two closely related and required elements of the General Plan: the Public Safety Element and the Noise Element.~~

The requirements for a Safety Element are established by State Planning law (Section 65302 g) as follows:

> "A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.
>
> To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.
>
> Each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of the safety element and any technical studies used for developing the safety element."

~~The requirements for a Noise Element are established by State Planning law (Section 65302 f) as follows:~~

> ~~"A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:~~
>
> ~~(1) Highways and freeways.~~
>
> ~~(2) Primary arterials and major local streets.~~
>
> ~~(3) Passenger and freight on-line railroad operations and ground rapid systems.~~
>
> ~~(4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.~~
>
> ~~(5) Local industrial plants, including, but not limited to, railroad classification yards.~~
>
> ~~(6)~~(1) ~~Other ground stationary noise sources identified by local agencies as contributing to the community noise environment."~~

SUMMARY

The goals, objectives, policies and programs of this chapter are derived from the necessity to protect the community from natural hazards, as well as from hazards produced from the built environment. This chapter is divided into sections based on the particular hazards.

The Seismic Hazards section addresses geologic review requirements for development within designated fault zones. The second section addresses policies relating to slope stability. This section includes specific policies on Coastal Bluffs and Beaches as well as general requirements for when geologic review is required. The third section on Erosion is closely related to slope stability and addresses the need for drainage and erosion control plans for all development and sets forth standards for the prevention of erosion and siltation.

The policies of the Flood Hazards section require new development to be located outside of the flood hazard area, wherever possible.

The Fire Hazards section is the last section relating to natural hazards and establishes road standards and development requirements for fire protection.

The section on Hazardous and Toxic materials outlines the objectives and policies which relate to the management of hazardous wastes, and also outlines the County's desire to minimize the use and dissemination into the environment of hazardous and toxic materials generally.

The Hazardous Waste Management section addresses the siting of hazardous waste facilities as required by the Hazardous Waste Management Plan.

An Electric and Magnetic Fields section has be included, which sets forth policies for development near high voltage electric power transmission and distribution lines which could create health hazards.

~~The section on Noise includes policies relating to land use, ground transportation and air transportation.~~

Substantial background data on these hazards are available in chapter 5, Resources and Hazards, of the General Plan Update Background Report (1991) covering the urban area, and in the Technical Appendix (1991) as well as various specialized studies and planning documents (see references).

GOALS

The overall goals guiding the Public Safety ~~and Noise~~ Element are as follows:

Public Health and Safety (LCP): To protect human life, private property and the environment, and to minimize public expenses by preventing inappropriate use and development or location of public facilities and infrastructure in those areas which, by virtue of natural dynamic processes or proximity to other activities, present a potential threat to the public health, safety and general welfare.

~~**Noise Hazards:** To protect the public and sensitive wildlife habitat areas from harmful noise sources such as industrial facilities, automobiles, airplanes, motorcycles, construction noise, surface mining operations, chainsaws, off-road vehicles, loud music, and other noise sources.~~

SEISMIC HAZARDS

THE LOMA PRIETA EARTHQUAKE

At 5:04 p.m. on October 17, 1989, a magnitude 7.1 earthquake rocked the Monterey Bay and San Francisco Bay regions. The initial quake lasted only 22 seconds, although in the two weeks that followed, more than 4,000 aftershocks were recorded, with 20 of these greater than magnitude 5 on the on the Richter Scale. The epicenter of the Loma Prieta earthquake was about 10 miles east-northeast of the City of Santa Cruz in the Aptos planning area on the San Andreas fault.

The Loma Prieta earthquake was the largest to strike California since 1906, causing 62 deaths, 3,757 injuries, leaving more than 12,000 people homeless, disrupting transportation, utilities, and communications, and causing more than $6 billion in property damages.

In Santa Cruz County, 674 dwellings, 32 mobile homes and 310 businesses were destroyed in the earthquake. The State Office of Emergency Services estimated that damages to residential buildings was $176 million and $98 million to commercial structures in the County.

As of January 1991, Santa Cruz County had issued 7,460 building permits for reconstruction or repair of earthquake damaged structures, and had provided related services to 19,909 members of the public. Replacement of un-reinforced masonry chimneys made up the majority of residential repairs, followed by foundation replacement on older wood frame houses which predated current building codes and lacked basic seismic safety features such as foundation bolts and sufficient structural bracing.

Significant damage to streets, water systems, sewer systems and other public infrastructure was related to liquefaction and subsidence. Repair of infrastructure was financed in part by a voter-approved half cent sales tax levied over 6 years in Measure E, and a $33 million bond issue.

An evaluation of the response by the Santa Cruz County Emergency Operations Center concluded that the response to the earthquake was a success, with the OEC being fully operational within 25 minutes of the earthquake. Due to the County's susceptibility to earthquakes and other natural hazards, disaster response planning is an on-going process.

Objective 6.1 Seismic Hazards

(LCP) To reduce the potential for loss of life, injury, and property damage resulting from earthquakes by: regulating the siting and design of development in seismic hazard areas; encouraging open space, agricultural or low density land use in the fault zones; and increasing public information and awareness of seismic hazards.

Policies

6.1.1 Geologic Review for Development in Designated Fault Zones

(LCP) Require a review of geologic hazards for all discretionary development projects, including the creation of new lots, in designated fault zones. Fault zones designated for review include the Butano, Sargent, Zayante, and Corralitos complexes, as well as the State designated Seismic Review Zones. Required geologic reviews shall examine all potential seismic hazards, and may consist of a Geologic Hazards Assessment and a more complete investigation where required. Such assessment shall be prepared by County staff under supervision of the County Geologist, or a ~~certified engineering~~registered geologist may conduct this review at the applicant's choice and expense.

6.1.2 Geologic Reports for Development in Alquist-Priolo Zones

(LCP) Require a preliminary geologic report or full engineering geology report for development on parcels within Alquist-Priolo State-designated seismic review zones.

6.1.3 Engineering Geology Report for Public Facilities in Fault Zones

(LCP) Require a full engineering geology report by a ~~certified engineering~~registered geologist whenever a significant potential hazard is identified by a Geologic Hazards Assessment or Preliminary Geologic Report, and prior to the approval of any new public facility or critical structure within the designated fault zones.

6.1.4 Site Investigation Regarding Liquefaction Hazard

(LCP) Require site-specific investigation by a ~~certified engineering~~registered geologist and/or civil engineer of all development proposals of more than four residential units in areas designated as having a high or very high liquefaction potential. Proposals of four units and under and non-residential projects shall be reviewed for liquefaction hazard through environmental review and/or geologic hazards assessment, and when a significant potential hazard exists a site-specific investigation shall be required.

6.1.5 Location of New Development Away From Potentially Hazardous Areas

(LCP) Require the location and/or clustering of development away from potentially hazardous areas where feasible and condition development permits based on the recommendations of the site's Hazard Assessment or other technical reports.

6.1.6 Siting of New Reservoirs

(LCP) Require a full engineering geologic investigation prior to the construction of new reservoirs, and if an unmitigable hazard exists, ~~relocation of~~do not approve the reservoir.

6.1.7 Dam Safety Act

(LCP) New dams shall be constructed according to high seismic design standards of the Dam Safety Act and as specified by structural engineering studies. Smaller reservoirs will be reviewed for potential seismic hazards as a part of the environmental review process.

6.1.8 Design Standards for New Public Facilities

(LCP) Require all new public facilities and critical structures to be designed to withstand the expected ground shaking during the design earthquake on the San Andreas Fault.

6.1.9 Recordation of Notice of Geologic Hazards

(LCP) Require the owner of a parcel in an area of potential geologic hazards to record on the property title/deed, with the County Recorder, a Notice of Hazards and the level of geologic and/or geotechnical investigation conducted as a condition of development approval.

6.1.10 Density Recommendations for Proposed Development

(LCP) Approve the final density of a development proposal only if it is consistent with the recommendations of the technical reports. Deny the location of the proposed development if it is found that the hazards on the site cannot be mitigated to within acceptable risk levels.

6.1.11 Setbacks from Faults

(LCP) Exclude from density calculations for land divisions, land within 50 feet of the edge of the area of fault induced offset and distortion of an active or potentially active fault trace. In addition, all new habitable structures on existing lots of record shall be set back a minimum of fifty (50) feet from the edge of the area of fault induced offset and distortion of an active or potentially active fault trace. This setback may be reduced to a minimum of twenty-five (25) feet based upon paleoseismic studies that include observation trenches. Reduction of the setback may only occur when both the consulting engineering 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 one hundred (100) feet from the edge of the area of fault induced offset and distortion of an active or potentially active fault traces. (Revised by Res. 81-99)

6.1.12 Minimum Parcel Size in Fault Zones

(LCP) Outside the Urban Services Line and Rural Services Line, require a minimum parcel size of 20 gross acres for the creation of new parcels within state and County designated seismic review zones if proposed building sites lie within the fault zone. Require a minimum parcel of 10 gross acres for the creation of new parcels within the portions of the County designated seismic review zones that are not part of a State Alquist-Priolo Earthquake Fault Zone, and which lie outside the Urban and Rural Services Lines and Coastal Zone, if 25% or more of the parcel perimeter is bounded by parcels 1-acre or less in size. Inside the Urban Services Line and Rural Services Line, allow density consistent with the General Plan and LCP Land Use designation if all structures are to be set back at least 50 feet from fault traces and meet all other conditions of technical reports. *(Amended by Res. 204-2008)*

Programs

a. Periodically update seismic design criteria and the Grading ordinance with the advice of qualified professionals as information becomes available in order to aid buildings and homeowners in constructing safe structures. (Responsibility: Planning Department)

b. Continue to evaluate existing public facilities to determine whether they can maintain structural integrity during the design earthquake. (Responsibility: Public Works, Board of Supervisors, California Department of Forestry)

c. Investigate the feasibility of requiring all new structures within fault zones and in areas subject to high or very high liquefaction potential, to be constructed to withstand ground shaking generated up to the design earthquake on the San Andreas fault. (Responsibility: Planning Department, Board of Supervisors)

d. Identify critical structures that were constructed prior to the adoption of current ~~Uniform~~California Building Code (CBC) earthquake design requirements, and strengthen them structurally if possible or phase out their use. (Responsibility: County Office of Emergency Services, Public Works, Board of Supervisors, State of California)

e. Target the following structures to meet ~~U~~CBC Zone 4 seismic safety standards:
(1) Buildings constructed prior to 1955;
(2) Critical facilities:
- Essential facilities: buildings whose use is necessary during an emergency;
- Buildings whose occupancy is involuntary;
- High occupancy buildings.

(Responsibility: Planning Department, Public Works, Board of Supervisors, State of California)

f. Support seismic retrofit programs for residential properties. (Responsibility: Planning Department, Santa Cruz County Housing Authority, Board of Supervisors)

g. Comprehensively map the Geologic Hazard Combining Zone District to include areas having a high, moderate or uncertain surface rupture potential in order to place all existing regulations into one concise ordinance, and to notify future buyers of these policies as they pertain to individual parcels. (Responsibility: Board of Supervisors, Planning Commission, Planning Department)

h. Comprehensively map the Geologic Hazard Combining Zone District to include areas subject to high liquefaction hazard when precise technical information regarding the extent and activity of liquefiable materials is available. (Responsibility: Board of Supervisors, Planning Commission, Planning Department)

i. Revise existing seismic hazard maps as new, reliable information becomes available. (Responsibility: Planning Department)

j. Evaluate the probable response of community service agencies and emergency facilities to a damaging earthquake, and develop contingency plans for post-disaster emergency operations, including evacuation procedures. (Responsibility: County Office of Emergency Services)

k. Develop public education programs to increase public awareness of seismic hazards, and to inform the public of proper procedures before, during and after an earthquake that can help to

minimize injury and property loss. (Responsibility: Planning Department, County Office of Emergency Services)

Objective 6.2 Slope Stability

(LCP) To reduce safety hazards and property damage caused by landslides and other ground movements affecting land use activities in areas of unstable geologic formations, potentially unstable slopes and coastal bluff retreat.

Policies

6.2.1 Geologic Hazards Assessments for Development On and Near Slopes

(LCP) Require a geologic hazards assessment of all development, including grading permits, that is potentially affected by slope instability, regardless of the slope gradient on which the development takes place. Such assessment shall be prepared by County staff under supervision of the County Geologist, or a ~~certified engineering~~registered geologist may conduct this review at the applicant's choice and expense.

6.2.2 Engineering Geology Report

(LCP) Require an engineering geology report by a ~~certified engineering~~registered geologist and/or a soils engineering report when the hazard assessment identifies potentially unsafe geologic conditions in an area of proposed development.

6.2.3 Conditions for Development and Grading Permits

(LCP) Condition development and grading permits based on the recommendations of the ~~H~~hazard assessment and other technical reports.

6.2.4 Mitigation of Geologic Hazards and Density Considerations

(LCP) Deny the location of a proposed development or permit for a grading project if it is found that geologic hazards cannot be mitigated to within acceptable risk levels; and approve development proposals only if the project's density reflects consideration of the degree of hazard on the site, as determined by technical information.

6.2.5 Slope Considerations for Land Division Calculations

(LCP) Exclude land with slopes exceeding 30 percent in urban areas and 50 percent in rural areas and land with recent or active landslides from density calculations for land divisions.

6.2.6 Location of Structures and Drainage Considerations in Unstable Areas

(LCP) Require location and/or clustering of structures away from potentially unstable slopes whenever a feasible building site exists away from the unstable areas. Require drainage plans that direct runoff and drainage away from unstable slopes.

6.2.7 Location of Septic Leachfields

(LCP) Prohibit the location of septic leachfields in areas subject to landsliding, unless investigation by a ~~certified engineering~~registered geologist and soils engineer demonstrates that such placement will not adversely affect slope stability.

6.2.8 Road Construction (deleted by Res. 81-99)

6.2.9 Recordation of Geologic Hazards

(LCP) Require the owner of a parcel in an area of potential geologic hazards to record, with the County Recorder, a Notice of Hazards and the level of prior geologic and/or geotechnical investigation conducted as a condition of development approval.

Programs

a. Implement a program to document the public and private costs of landslides, to identify existing landslides, and revise County maps as additional information becomes available. Require property owners and public agencies to control landslide conditions which threaten structures or roads. (Responsibility: Planning Department)

b. Maintain and periodically update public information brochures concerning landslide hazards and guidelines for hillside development as new information becomes available. (Responsibility: Planning Department)

COASTAL BLUFFS AND BEACHES

The purpose of the coastal bluffs and beaches policies is to minimize risks to life, property, and public infrastructure in coastal hazard areas and minimize adverse impacts on coastal resources from development in coastal hazard areas. One of the primary approaches to minimizing hazards is to avoid locating new development in hazardous areas, wherever feasible. The policies address this with requirements for development to be set back from coastal bluffs, and elevation of structures on the beach. These policies require that sea level rise be factored into the calculation of coastal bluff erosion rates and minimum elevation of structures on the beach. In addition, policies require property owners to acknowledge and accept the risks to property and health and safety that are associated with developing property in hazardous areas.

The policies provide for appropriate siting of development to avoid the perpetuation of shoreline armoring. The policies address situations for when shoreline protective measures may be considered in response to coastal erosion. Where shoreline or coastal bluff protection measures currently exist, the policies link evaluation of the protection measure to the structure that is protected, and may impose requirements to modernize the coastal protection structure to minimize public impacts and maximize benefits.

As a strategy to adapt to future sea level rise, and recognizing the unique features, existing development patterns, and needs of Santa Cruz County, the policies on coastal bluff setback and shoreline and coastal bluff protection measures treat urban areas of the County differently than rural areas. In urbanized areas where the development pattern is set, it is not likely that existing public roads and infrastructure will be relocated. The policies therefore allow existing protection measures to be factored into the calculation of coastal bluff setback within the urban areas of the County. Policies provide for an exception to the coastal bluff setback in limited cases where there is existing development and coastal bluff protection.

Policies

6.2.10 Site Development to Minimize Hazards

(LCP) **R**equire all developments to be sited and designed to avoid or minimize hazards, including coastal hazards associated with anticipated sea level rise, and not contribute to coastal hazards, as determined by the geologic hazards assessment or geologic and engineering investigations. *(Revised by Res. 81-99)*

6.2.11 Use Best Available Science for Sea Level Rise

(LCP) Recognize scientific uncertainty by using a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values and the projection to be used shall be revised during periodic updates of LCP policies, County Codes, and departmental procedures based on best available new science, as determined by the Planning Director.

6.2.1~~1~~2 Geologic Hazards Assessment in Coastal Hazard Areas

(LCP) Require a geologic hazards assessment or ~~full~~ geologic, geotechnical, hydrologic, or other engineering 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)*

6.2.1~~2~~3 Setbacks from Coastal Bluffs

(LCP) All development activities, as defined in County Code Chapter 16.10, 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 assumed 100-year lifetime of the structure, as determined through geologic, geotechnical, hydrologic, or other ~~and/or soil~~ engineering reports. The setback shall be evaluated 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. Current best available science projections of sea level rise shall be used to calculate the bluff setback. ~~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)*~~

6.2.14 Setback Considerations for Existing or Proposed Shoreline or Bluff Protection Measures

(LCP) Outside the Urban or Rural Services Line the calculation of the 100 year setback shall not take into consideration the effect of any existing or proposed shoreline or coastal bluff protection measure.

Within the Urban or Rural Services Line the calculation of the 100 year setback may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. Protection measures installed under an emergency permit shall not be factored into the setback calculation until a regular Coastal Development Permit is issued and all conditions of the permit are met.

Existing shoreline and coastal bluff protective measures may have both beneficial and adverse impacts on public coastal resources. On lots with legally established shoreline or

coastal bluff protection measures, the required setback analysis shall consider the condition of the existing shoreline or coastal bluff protection measure; and identify any impacts it may be having on public access and recreation, scenic views, sand supply and other coastal resources. The analysis shall also identify any benefits the protection measure may provide, including but not limited to, public access, and protection of public roads and infrastructure. The analysis must evaluate opportunities to modify or replace the existing protective device in a manner that would eliminate or reduce those impacts, while maintaining public benefits. Also See Policy 6.2.22. The analysis shall also be made under an assumption the existing protection measure is not assumed to exist, in order to provide a measure of the impacts of the existing protection measure on the site conditions. All reasonable measures to eliminate or reduce impacts to coastal resources and maintain public benefits must be implemented as a condition of project approval, considering principles of nexus and proportionality.

6.2.1~~3~~5 ~~Exception for Foundation Replacement and/or Upgrade~~Reduction to Setback from Coastal Bluff

(LCP) On lots within the Urban or Rural Services Lines with a legally established coastal bluff protection measure, and an existing legal habitable structure, the Planning Director may reduce the required 100-year setback for repair, maintenance, improvement or reconstruction of such structures that currently encroach into the setback, and there is no alternative location on the property owner's lots to relocate the structure. No reduction is allowed to the 25-foot minimum coastal bluff setback. The footprint of the portion of the structure within the 100-year setback may change, but the area of that portion of the footprint must not increase. The project analysis must consider the existing shoreline or coastal bluff protection measure pursuant to Policy 6.2.14.

~~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)~~

6.2.1~~4~~6 Additions to Existing Structures

(LCP) Additions, of any size, including second story and cantilevered additions, that extend the existing structure in a seaward direction shall comply with the applicable setback requirements of 6.2.1~~3~~2, and 6.2.14 and 6.2.15. *(Revised by Res. 81-99)*

6.2.1~~5~~7 New Development on Existing Lots of Record

(LCP) Allow new 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~~v~~ic, geotechnical, hydrologic, or other ~~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 ~~structure~~measures, except on lots in the Urban and Rural Services Line that have legally established protection ~~structure~~measures, or where both adjacent parcels are already similarly protected; and

(c) The owner records a Declaration of Geologic Hazards, Acknowledgement and Assumption of Risk, on the property deed that describes the potential hazard and the level of ~~geologic and/or geo~~technical investigation conducted, and exempting the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit must be consistent with Policies 6.2.13, 6.2.14, and 6.2.21. *(Revised by Res. 81-99)*

6.2.18 Swimming Pools and Spas

(LCP) All new swimming pools and spas shall be located landward of the required coastal bluff setback line. New swimming pools and spas on bluff property shall have double wall construction with drains and leak detection systems.

6.2.19 Accessory Structures

(LCP) Coastal Development Permits (CDPs) authorizing accessory structures must include a condition of approval that requires the property owner (and all successors in interest) to apply for a CDP to remove the accessory structure(s) if a licensed geotechnical engineer determines that the accessory structure is in danger from erosion, landslide, or other form of bluff collapse.

6.2.20 Declaration of Geologic Hazard, Acknowledgement, and Assumption of Risk

(LCP) As a condition of CDP approval for development in hazardous areas, require the applicant to record a Declaration of Geologic Hazards on the property deed that describes the potential hazards and level of technical investigation conducted, accepting risk, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

6.2.~~16~~21 Structural Shoreline and Coastal Bluff Protection Measures

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

Require any application for shoreline and coastal bluff 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.

Any new, modified, or replacement ~~The~~ protection ~~structure~~measure must not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, adversely impact recreational resources, increase erosion or flooding on adjacent properties, or cause harmful impacts on wildlife and fish habitats or archaeological or paleontological resources. Shoreline protection measures shall minimize visual impact by employing materials that blend with the color of natural materials in the area, and by using vegetation for screening as applicable to the setting.

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

Shoreline and coastal bluff protection ~~structure~~measures shall be designed to meet approved engineering standards for the site as determined through the environmental review, and grading and building process.

Detailed technical studies shall be required to accurately define oceanographic conditions affecting the site. All shoreline protective ~~structure~~measures 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 and coastal bluff protective ~~structure~~measures 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 on the title/deed of the property, and shall allow for County removal or repair of a shoreline protective ~~structure~~measure, 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)

No shoreline or bluff protection measure shall be allowed for the sole purpose of protecting an accessory structure.

No permit shall be issued for retention of a shoreline or coastal bluff protection measure unless the County finds that the shoreline or coastal bluff protection measure is necessary to protect an existing principal structure, public road or infrastructure that is in danger from erosion, that it will minimize further alteration of the natural landform of the bluff, and that adequate mitigation for any adverse impacts on coastal resource, including but not limited to impacts to a public beach has been provided.

Existing shoreline or coastal bluff protection measures which do not conform to the provisions of the LCP, including structural or aesthetic requirements, may be repaired and maintained to the extent that such repairs and/or maintenance conform to the provisions of the LCP

Expansion, alteration, reconstruction, or replacement of a legally authorized shoreline or bluff protection measure located within the USL/RSL shall include a reassessment of the need for the shoreline protective device to protect existing structure, public roads and infrastructure, analysis of whether any modifications are necessary to eliminate or reduce adverse impacts the subject measure may be having on public access and recreation, scenic views, sand supply and other coastal resources, and an evaluation of opportunities to modify or replace the the subject measure in a manner that would eliminate or reduce those impacts while maintain public benefits such as preservation of public infrastructure and public access to the coast.

6.2.~~17~~22 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~~23 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)

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

6.2.~~18.1~~25 Density Calculations
(LCP) Exclude areas subject to coastal bluff erosion and inundation, as defined by geologic hazard assessment or full geologic report, from use for density calculations. (Added by Res. 81-99)

6.2.~~19~~26 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~~27 Reconstruction of Damaged Structures on Coastal Bluffs
(LCP) ~~Permit r~~Reconstruction of structures on or at the top of a coastal bluff which are damaged as a result of coastal hazards, must be found consistent with all applicable LCP policies. A development proposal is considered reconstruction and the entire structure must be found consistent with all applicable LCP policies if the project meets the definition of reconstruction in Chapter 16.10.040(14) of the County Code. ~~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 repairs meet the definition of reconstruction in Chapter 16.10.040(14) of the County Code ~~loss is greater than 50% of the vaule~~, allow in-kind reconstruction, subject to all regulations except for the minimum setback. Allow other than in-kind reconstruction only if all regulations and the minimum setback ~~is~~are met.

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

~~6.2.21 Reconstruction of Damaged Structures due to~~subject 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

(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, and monitor and enforce compliance of private drainage facilities with approved designs and applicable standards. (Responsibility: Public Works)

d. Review existing coastal protection ~~structure~~measures 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 ~~structure~~measures to evaluate their effectiveness and potential for becoming public hazards. Shoreline protective ~~structure~~measures 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 ~~structure~~measures 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~~measure to a reasonable level or remove and replace the ~~structure~~measure within one year of the notice. Consider County action to maintain or remove and replace the ~~structure~~measure and recover costs by a lien against the property if the property owner does not act within one year of such notice, or other timeframe as may be extended and approved by the County. (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 ~~structure~~measures. Provide geo-reference (latitude and longtitude) for each monument and structure. (Responsibility: Planning Department, Public Works)

Objectives 6.3 Erosion

(LCP) To control erosion and siltation originating from existing conditions, current land~~-~~_use activities, and from new developments, to reduce damage to soil, water, and biotic resources.

Policies

6.3.1 Slope Restrictions

(LCP) Prohibit structures in discretionary projects on slopes in excess of 30 percent. A single-family dwelling on an existing lot of record may be excepted from the prohibition where siting on greater slopes would result in less land disturbance, or siting on lesser slopes is infeasible.

6.3.2 Grading Projects to ~~Address~~Incorporate Mitigation Measures

(LCP) Deny any grading project where a potential danger to soil or water resources has been identified and adequate mitigation measures cannot be undertaken.

6.3.3 Abatement of Grading and Drainage Problems

(LCP) Require, as a condition of development approval, abatement of any grading or drainage condition on the property which gives rise to existing or potential erosion problems.

6.3.4 Erosion Control Plan Approval Required for Development

(LCP) Require approval of an erosion control plan for all development, as specified in the Erosion Control ordinance. Vegetation removal shall be minimized and limited to that amount indicated on the approved development plans, but shall be consistent with fire safety requirements.

6.3.5 Installation of Erosion Control Measures

Require the installation of erosion control measures consistent with the Erosion Control ordinance, by October 15, or the advent of significant rain, or project completion, whichever occurs first. Prior to October 15, require adequate erosion control to be provided to prevent erosion from early storms. For development activities, require protection of exposed soil from erosion between October 15 and April 15 and require vegetation and stabilization of disturbed areas prior to completion of the project. For agricultural activities, require that adequate measuresare taken to prevent excessive sediment from leaving the property.

6.3.6 Earthmoving in Least Disturbed or Water Supply Watersheds

Prohibit earthmoving operations in areas of very high or high erosion hazard potential and in Least Disturbed or Water-Supply Watersheds between October 15 and April 15, unless preauthorized by the Planning Director. If such activities take place, measures to control erosion must be in place at the end of each day's work.

6.3.7 Reuse of Topsoil and Native Vegetation Upon Grading Completion

Require topsoil to be stockpiled and reapplied upon completion of grading to promote regrowth of vegetation; native vegetation should be used in replanting disturbed areas to enhance long-term stability.

6.3.8 On-Site Sediment Containment

(LCP) Require containment of all sediment on the site during construction and require drainage improvements for the completed development that will provide runoff control, including onsite retention or detention where downstream drainage facilities have limited capacity. Runoff control systems or Best Management Practices shall be adequate to prevent any significant increase in site runoff over pre-existing volumes and velocities and to maximize on-site collection of non-point source pollutants.

6.3.9 Site Design to Minimize Grading

(LCP) Require site design in all areas to minimize grading activities and reduce vegetation removal based on the following guidelines:

(a) Structures should be clustered;

(b) Access roads and driveways shall not cross slopes greater than 30 percent; cuts and fills should not exceed 10 feet, unless they are wholly underneath the footprint and adequately retained;

(c) Foundation designs should minimize excavation or fill;

(d) Building and access envelopes should be designated on the basis of site inspection to avoid particularly erodable areas;

(e) Require all fill and sidecast material to be recompacted to engineered standards, reseeded, and mulched and/or burlap covered.

6.3.10 Land Clearing Permit

(LCP) Require a land clearing permit and an erosion control plan for clearing one quarter or more acres, except when clearing is for existing agricultural uses. Require that any erosion control and land clearing activities be consistent with all General Plan and LCP Land Use Plan policies.

6.3.11 Sensitive Habitat Considerations for Land Clearing Permits

(LCP) Require a permit for any amount of land clearing in a sensitive habitat area and for clearing more than one quarter acre in Water Supply Watershed, Least Disturbed Watershed, very high and high erosion hazard areas no matter what the parcel size. Require that any land clearing be consistent with all General Plan and LCP Land Use policies.

Programs

(LCP) a. Establish an active erosion control education program for the general public, builders, and staff, in cooperation with the Resource Conservation District and the Soil Conservation Service. (Responsibility: Planning Department)

b. Enforce the comprehensive Erosion Control ordinance requiring control of existing erosion problems as well as the installation of erosion, sediment, and runoff control measures in new developments. (Responsibility: Planning Department, Planning Commission, Board of Supervisors)

(LCP) c. Develop cost-sharing programs with outside funding to assist property owners with control of existing problems that are too large to be effectively controlled by the owner. (Responsibility: Planning Department)

(LCP) d. Encourage use of Resource Conservation District programs to control existing erosion problems. (Responsibility: Planning Department)

Objective 6.4 Flood Hazards

(LCP) To protect new and existing structures from flood hazards, including sea level rise, in order to minimize economic damages and threats to public health and safety, and to prevent adverse impacts on floodplains, and maintain their beneficial function for flood water storage and transport and for biotic resource protection.

6.4.1 Use Best Available Science for Sea Level Rise

(LCP) Recognize scientific uncertainty by using a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values and the projection to be used shall be revised during periodic updates of LCP policies, County Codes, and departmental procedures based on best available new science, as determined by the Planning Director.

6.4.1 ~~Geologic~~ Flood Hazards Assessment Required in Flood Hazard Areas

(LCP) Require a ~~geologic~~ flood hazards assessment of all development proposals within the County's flood hazard areas in order to identify flood hazards and development constraints.

6.4.2 Development Proposals Protected from Flood Hazard

(LCP) Approve only those grading applications and development proposals that are adequately protected from flood hazard and which do not add to flooding damage potential. This may include the requirement for foundation design which minimizes displacement of flood waters, as well as other mitigation measures.

6.4.3 Site Development to Minimize Hazards

(LCP) Require all developments to be sited and designed to avoid or minimize flood hazards.

~~i.evelopment on or Adjacent to Coastal Bluffs and Beaches~~

~~(LCP) Allow development in areas immediately adjacent to coastal bluffs and beaches only if a geologist determines that wave action, storm swell and tsunami inundation are not a hazard to the proposed development or that such hazard can be adequately mitigated. Such determination shall be made by the County Geologist, or a certified engineering geologist may conduct this review at applicant's choice and expense. Apply Coastal Bluffs and Beaches policies.~~

~~6.4.3~~6.4.4 Locate New Public Facilities Outside Flood Hazard Areas

(LCP) Require new utilities, critical facilities and non-essential public structures to be located outside the ~~100-year flood and coastal high hazard areas~~flood hazard area, 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 or coastal inundation areas~~flood hazard area.

~~ii.~~6.4.5 New Parcels or Lots in ~~100-Year Floodplains~~Flood Hazard Areas

(LCP) Allow the creation of new parcels or lots, including those created by minor land division or subdivision, in ~~100-year floodplains~~the flood hazard area 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 final recorded map shall indicate the limits and elevations of the ~~one-hundred-year floodplain~~flood hazard area, as 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. (Revised by Res. 81-99)

6.4.6 Density Calculations

(LCP) In all areas exclude the portion of the property designated within the ~~100-year floodplain~~ flood hazard area from density calculations.

6.4.7 New Construction to be Outside Flood Hazard Areas

(LCP) Restrict new construction to the area outside the ~~100-year floodplain and area subject to coastal inundation~~flood hazard area, if a buildable portion of the parcel exists outside such areas.

6.4.8 Elevation of Residential Structures

(LCP) Require elevation of the habitable portions of residential structures above the 100-year flood level where constructed within a ~~floodplain~~flood hazard area. Require floodproofing or elevation of non-residential structures. Required that foundations do not cause floodwater displacement except where necessary for flood-proofing.

6.4.9 Require Freeboard

(LCP) Freeboard is a factor of safety measured in feet above a base flood elevation or height for purposes of floodplain management. Freeboard is required to compensate for the many unknown factors that could contribute to flood heights or elevations greater than the height or elevation calculated for a selected size flood and floodway conditions, such as wave action, bridges, climate change, sea level rise, and the hydrological effect of urbanization of the watershed. For all structures located on parcels that are partially or wholly in Coastal A and V Zones freeboard above the wave run up elevation shall be based on a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. These values may be revised periodically based on best available new science, as determined by the Planning Director. For habitable structures located in flood hazard areas outside of Coastal A and V Zones, freeboard, above the base flood elevation shall be determined by the Planning Director.

6.4.~~9~~10 Septic Systems and~~,~~ Leach Fields~~, and Fill Placement~~

(LCP) Septic systems and leach fields to serve previously undeveloped parcels shall not be located within the flood hazard area~~floodway or the 100-year floodplain~~. The capacity of existing systems in the flood hazard area~~floodway or floodplain~~ shall not be increased. ~~–~~Septic systems shall be locted and designed to avoid impairment or contamination. ~~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 on or off site. No fill is allowed in the floodway. (Revised by Res. 81-99)~~

6.4.11~~0~~ Fill Placement

(LCP) Allow grading within the 100-year floodplain only if there is no net increase in fill and only if it can be demonstrated that the grading will not have cumulative adverse impacts on or off site. No fill is allowed in the floodway.

6.4.1~~0~~2 Flood Control Structures

(LCP) Allow flood control structures only to protect existing development (including agricultural operations) where no other alternative is feasible and where such protection is necessary for public safety. The structures must not adversely affect sand supply, increase erosion or flooding on adjacent properties, or restrict stream flows below minimum levels necessary for the maintenance of fish and wildlife habitats.

Programs

a. Continue the Floodplain Management Program in accordance with the Federal Flood Insurance Program. (Responsibility: Planning Department)

b. Revise County floodplain maps as updated information becomes available. (Responsibility: Planning Department, FEMA)

c. Comprehensively map the Geologic Hazards Combining District in order to place all existing regulations into one concise and consistent ordinance and ~~-~~to notify future buyers of the policies as they pertain to affected parcels. (Responsibility: Planning Commission, Planning Department)

d. Maintain culverts and drainage facilities on County roads, and seek to eliminate log-jams and other obstructions from stream courses. (Responsibility: Public Works, Planning Department)

e. Continue to provide information to property owners located in ~~floodplains~~ flood hazard areas and coastal ~~inundation~~ high hazard areas to encourage participation in the Federal Flood Insurance Program. (Responsibility: Planning Department)

f. Maintain the Automated Local Evaluation in Real Time (ALERT) Systems along Soquel Creek and Corralitos Creek. Implement a floodplain warning system for the San Lorenzo River, Aptos Creek and Valencia Creek. The Pajaro River Basin continues to be monitored by the National Weather Service. (Responsibility: Planning Department, County Office of Emergency Services)

g. Prepare detailed tsunami evacuation plans for coastal areas subject to the tsunami hazard. (Responsibility: County Office of Emergency Services)

(LCP) h. Incorporate more detailed information on tsunami inundation levels into the existing flood hazard program when this information is available. Existing development regulations

would then apply to areas subject to this hazard. (Responsibility: County Office of Emergency Services)

i. Prepare and adopt an emergency warning system and detailed evacuation plans for areas subject to inundation in the event of failure of the Newell Creek Dam. (Responsibility: County Office of Emergency Services)

j. Work with relevant state and federal agencies to monitor potential rise in sea level due to the greenhouse effect and develop long term programs to address the impacts. (Responsibility: Planning Department, Board of Supervisors)

~~k. Continue to work with the Joint Powers Authority to relocate the Santa Cruz County Emergency Operations Center from the basement of the County Government Center, where it is vulnerable to flooding. (Responsibility: Board of Supervisors, Office of Emergency Services, County Administrative Office)~~

FIRE HAZARDS

Fire History

Prior to about 1950 information on wildfire in Santa Cruz County was limited to verbal history and newspaper accounts. After the Division of Forestry began gathering data in the 1950's, significant wildfires in Santa Cruz and adjacent counties were documented in the early 1960's and again in the 1980's (Lexington fire). The devastating wildfires that occurred in Santa Cruz County in 2008 (Summit, Martin and Trabing fires) and 2009 (Lockheed and Loma fires) burned a combined area of nearly 14,000 acres and numerous homes and structures. What makes wildfire different today as compared to the early part of the the last century is the number of people living in the rural area, or the Wildland Urban Interface (WUI). According to the United States Census, the population of Santa Cruz County has increased by nearly 200,000 people since the middle of the last century, from 66,534 in 1950 to 262,340 in 2010. Much of the increase occurred in urban areas, but rural areas have experienced significant population increases, as well. This has caused the fire agencies to change their approach to fire hazards from focusing primarily on the fire to dealing with increasing demands for protecting roads, structures, and people. Because there are not enough firefighters or fire apparatus to protect each and every home during a wildfire, the community and government must take greater responsibility for preventative measures to make homes, neighborhoods, and the community more defensible from wildfire. (Source: San Mateo - Santa Cruz Unit Strategic Fire Plan)

Fire Plans

The San Mateo - Santa Cruz Unit Strategic Fire Plan identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce losses within the Unit. There is a history of collaborative efforts between fire agencies and communities including Las Cumbres, Olive Springs and Bonny Doon. Efforts such as these have resulted in numerous fuel reduction projects and community education. More recently, the Unit has seen an unprecedented level of pre-fire "grass roots" organization, including the formation of the Soquel, South Skyline, and Bonny Doon Fire Safe Councils. Also, with the assistance of the Resource Conservation District (RCD) through a grant from the United Fish and Wildlife Service, a Community Wildfire Protection Plan (CWPP) was developed with input from stakeholders throughout Santa Cruz County. In 2010, the Board of Supervisors for Santa Cruz County adopted the 2010 San Mateo County – Santa Cruz County CWPP. The Unit Strategic Fire Plan is meant to work in collaboration with the CWPP

The CWPP attempts to identify fire hazards, as seen across the landscape, and provide strategies to mitigate wildfire risk and restore healthier, more resilient ecosystems while protecting life and property. A CWPP also serves as a tool for the accrual of grant funding to aid in the implementation of wildfire prevention projects. The CWPP is a guidance document that recommends both general and specific projects in priority fuel reduction areas, and provides recommendations to reduce the ignitability of structures. Local projects are subject to appropriate permitting and environmental review process. The CWPP was developed collaboratively by CAL FIRE, Resource Conservation District of Santa Cruz and San Mateo Counties, the United State Fish and Wildlife Service, other agencies, and members of the community.

State and Local Responsibility Areas

Wildland fire protection in California is the responsibility of the State, local government, or the federal government depending on location. The State Responsibility Area (SRA) is the area of the state where financial responsibility for the prevention and suppression of wildfires is primarily the responsibility of the state. In general, SRA includes forest-covered lands, whether of commercial value or not, or brush or

grass-covered lands. SRA does not include lands within city boundaries or in federal ownership. Fire protection in SRA is typically provided by CAL FIRE. However, in Santa Cruz County, autonomous fire protection districts provide fire protection in large parts of the SRA. Local responsibility areas (LRA) include incorporated cities and other urbanized areas, and cultivated agriculture lands. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, and by CAL FIRE under contract to local government.

CAL FIRE is the County Fire Department for the unincorporated areas of Santa Cruz County that are not included in an autonomous fire protection district. In addition, the County contracts with CAL FIRE to provide fire protection for Pajaro Dunes, and to provide~~s~~ administrative and staffing needs for the Pajaro Valley Fire Protection District.

Because the majority of wildland fires occur in the SRA, there is potential for many different agencies in the county to be affected. In many cases, fires occur in Mutual Threat Zones (MTZ's) or in areas near adjoining jurisdictions and also in the LRAs. It is through mutual relationships with local government agencies where initial attack resources become larger and more effective. The following Santa Cruz County local government agencies are typically available and involved in suppressing wildland fires:

Aptos/La Selva Fire Protection District
Scotts Valley Fire Protection District
Boulder Creek Fire Protection District
Central Fire Protection District of Santa Cruz County
Felton Fire Protection District
Santa Cruz City Fire Department
Watsonville Fire Department
Zayante Fire Protection District
Ben Lomond Fire Protection District
Branciforte Fire Protection District
Pajaro Valley Fire Protection District

A person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining SRAs are required by Public Resource Code (PRC) 4291 to maintain defensible space around structures on their property. Defensible space means the area adjacent to a structure or dwelling where wildfire prevention or protection practices are implemented to provide defense from an approaching wildfire or to minimize the spread of a structure fire to wildlands or surrounding areas. Responsibility for maintaining defensible space is limited to 100 feet from structure(s) or to the property line, whichever is closer. Defensible space inspections are completed by inspectors from CAL FIRE, engine companies, and fire protection districts (Central and Aptos/La Selva). Educational materials are distributed to residents during inspections, through direct mailing, and at public events including a brief pamphlet focusing on defensible space and a document called Living With Fire in Santa Cruz County.

The Santa Cruz County Code requires new projects and construction to meet fire safety standards consistent with State law (PRC 4290). Chapter 7.92 of the County Code establishes requirements for fuel modification and emergency water supply, as well as minimum fire safe driveway and road standards. New structures built in Santa Cruz County must also comply with fire safety building regulations. These building codes require the use of ignition-resistant building materials in higher risk areas and establish design standards to improve the ability of a building to survive a wildfire.

CAL FIRE has mapped areas of very high fire hazard within LRA and SRA. Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on relevant factors such as fuels, terrain, and weather. The Fire Code of Santa Cruz County (County Code Chapter 7.92) includes provisions to improve the ignition resistance of buildings, especially from firebrands. The updated fire hazard severity zones will be used by the Building Official to determine appropriate construction materials for new buildings in the Wildland-Urban Interface. In addition, pursuant to State law, the updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of the property sale, and with the 100 foot defensible space clearance requirements.

The County's GIS mapping information system has been updated to incorporate the FHSZ maps for Santa Cruz County. These maps complement the existing General Plan Resources and Constraints maps designating Critical Fire Hazard Areas.

Objective 6.5 Fire Hazards

To protect the public from the hazards of fire through citizen awareness, mitigating the risks of fire, responsible fire protection planning and built-in systems for fire detection and suppression.

Policies

6.5.1 Defensible Space

In the State Responsibility Area and Very High Fire Hazard Severity Zones within the Local Responsibility Area maintain defensible space of 100 feet from each side and from the front and rear of structures, but not beyond the property line. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, with the most intense management being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this policy, "fuel" means any combustible material, including petroleum-based products and wildland fuels.

6.5.2 Defensible Space in Environmental Resource Areas

Fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state or local environmental protection laws, including, but not limited to, laws protecting threatened and endangered species, sensitive habitats, water quality, air quality, and cultural/archeological resources, and obtain any and all required permits.

6.5.3 Exception in Sensitive Habitat for Defensible Space

Establishment and maintenance of defensible space in order to comply with state law may qualify for an exception to the Sensitive Habitat Protection Ordinance if the following findings can be made: 1) That adequate measures will be taken to ensure consistency with the purpose of this chapter to minimize the disturbance of sensitive habitats; and 2) It can be

demonstrated by biotic assessment, biotic report, or other technical information that the exception is necessary to protect public health, safety, and welfare.

6.5.~~1~~14 Access Standards

Require all new structures, including additions of more than 500 square feet, to single-family dwellings on existing parcels of record, to provide, and maintain, an adequate road for fire protection in conformance with the following standards:

(a) Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet. Areas within 10 feet on each side of portions of highways, public and private streets and roads which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth, and maintained, consistent with the defensible space requirements for the 30 – 100-foot zone around structures. Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, succulents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

Exceptions:

~~(3)~~ Outside the Urban Services Line: Access roads shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the ~~Fire Chief~~fire code official. ~~Exceptions: Title 19 of the California Administrative Code, requires that access roads from every state governed building to a public street shall be all-weather hard-surface (suitable for use by fire apparatus) roadway not less than 20 feet in width. Such roadway shall be unobstructed and maintained only as access to the public street.~~

Inside the Urban Services Line: Inside of the Urban Services Line, private access roads extending from a public road shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

~~(a)~~(b) Obstruction of the road width, as required above, including the parking of vehicles, shall be prohibited, as required in the ~~Uniform~~ Fire Code of Santa Cruz County.

~~(b)~~(c) The access road surface shall be "all weather", which ~~means~~is defined based on road gradient as follows: zero to five percent gradient - a minimum of six inches of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction and shall be maintained; five to fifteen percent gradient – the required base rock shall be overlain by oil and screenings; greater than fifteen percent grade - . ~~Where~~

~~the grade of the access road exceeds 15 percent,~~ the required base rock shall be overlain by 2 inches of asphaltic concrete~~, Type B or equivalent,~~ and shall be maintained.

~~(c)~~(d) The maximum grade of the access road shall not exceed 20 percent (18 percent average), with grades greater than 15 percent not permitted for distances of more than 200 feet at a time, and grades not exceeding 15 percent in State Responsibility Area.

~~(d)~~(e) The access road shall have a vertical clearance of 145 feet for its entire width and length, including turnouts in State Responsibility Area, and 13 feet, 6 inches in other areas.

~~(e)~~(f) All gates providing access from a road to a driveway, or within any access road, shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on the road. Gates shall be a minimum of 2 feet wider than the access road/driveway they serve but in no case shall the width be less than 14 (fourteen) feet. Overhead gate structures shall have a minimum of 15 feet vertical clearance. When gates are to be locked, the installation of a key box or other acceptable means for immediate access may be required by the fire code official.

~~(f)~~(g) An access road or driveway shall not end farther than 150 feet from any portion of a structure.

~~(g)~~(h) A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length.

~~(h)~~(i) No roadway in the State Responsibility Area shall have an inside turning radius of less than 50 feet, with minimum centerline turning radius of 35 feet in other areas. Roadways with a radius curvature of 50 to 100 feet shall require an additional 4 feet of road width. Roadways with radius curvatures of 100 to 200 feet shall require an additional 2 feet of road width.

~~(i)~~(j) Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.

~~(j)~~(k) Bridges shall be a minimum of 20 feet of clear width~~as wide as the road being serviced~~, meet a minimum load bearing capacity of 25 tons (AASHTO HS-20), and have guard rails. Guard rails shall not reduce the required minimum road width. Width requirements may be modified for access to U-1, U-2 or R-3 occupancies in accordance with other General Plan Fire Hazard policies only with written approval from the ~~Fire Chief~~fire code official. In such cases, bridges shall be as wide as the road or driveway being serviced. Every private bridge hereafter constructed shall be engineered by a licensed civil or structural engineer and approved by the fire code official. Certification shall be provided by the licensed engineer in writing that the bridge complies with the design standard required by this section to the fire code official. Bridge capacity shall be posted and shall be recertified every ~~five~~ten years by a licensed engineer. For bridges served by 12 foot access roads, approved turnouts shall be provided at each bridge approach as approved by the fire code official.

~~(k)~~(l) All private access roads, driveways, gates, turnarounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times.

~~(l)~~(m) To ensure maintenance of private access roads, driveways, turnarounds and bridges, the owner(s) of parcels where new development is proposed shall participate in an existing road maintenance group. For those without existing maintenance agreements, the formation of such an agreement shall be required.

~~(m)~~(n) All access road and bridge improvements required under this section shall be made prior to permit approval, or as a condition of permit approval.

~~(n)~~(o) Access for any new dwelling unit or other structure used for human occupancy, including a single-family dwelling on an existing parcel of record, shall be in the duly recorded form of a deeded access or an access recognized by court order.

Diagrammatic representations of access standards are available at the Santa Cruz County Planning Department and local fire agencies.

6.5.~~2~~5 Exceptions to Access Road Standards

Exceptions to these standards may be granted at the discretion of the ~~Fire Chief~~fire code official for single-family dwellings on existing parcels of record as follows:

(b) When the existing access road is acceptable to the Fire Department having jurisdiction.

(c) In addition, any of the following mitigation methods may be required:

(1) Participation in an existing or formation of a new road maintenance group or association.

(2) Completion of certain road improvements such as fill pot holes, resurface access road, provide turnouts, cut back brush, etc. are made, as determined by the fire officials, and provided that the fire department determines that adequate fire protection can still be provided.

(3) Provision of approved fire protection systems as determined by the ~~Fire Chief~~fire code official.

(d) The level of road improvement required shall bear a reasonable relationship to the magnitude of development proposed.

6.5.~~3~~6 Conditions and Standards for Project Approval

Condition approval of all new structures and additions larger than 500 square feet~~, and~~ to single-family dwellings on existing parcels of record to meet, and maintain at all times, the following fire protection standards:

(a) Address numbers shall be posted on the property so as to be clearly visible from the access road. Where visibility cannot be provided, a post or sign bearing the numbers shall be set adjacent to the driveway or access road to the property and shall have a contrasting background. Numbers shall be posted when construction begins. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Address numbers shall be maintained

(b) Provide adequate water availability. ~~This may be provided from an approved water system within 500 feet of a structure, or by an individual water storage facility (water tank, swimming pool, etc.) on the property itself.~~ An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction in accordance with the Fire Code of Santa Cruz County. The fire department shall determine the adequacy and location of individual water storage fire flow to be provided. Built-in fire protection features (i.e., sprinkler systems) may allow for some exemptions of other fire protection standards when incorporated into the project.

(c) Maintain all around structures a ~~clearance~~defensible space of not less than 30 feet or to the property line (whichever is a shorter distance) ~~of all flammable vegetation or other combustible materials~~; or for a greater distance as may be prescribed by the fire department. In State Responsibility Areas and Very High Fire Hazard Severity Zones maintain all around

structures a defesible space of not less than 100 feet or to the property line (whichever is a shorter distance).

(d) Provide and maintain a spark arrester constructed with heavy wire mesh or other noncombustible material with openings not to exceed 1/2 inch (12.7 mm). ~~one-half inch wire mesh screens on all chimneys.~~

(e) Automatic smoke detection and carbon monoxide devices shall be installed and maintained in accordance with the California Building Code and local Fire Department regulations. Sprinkler and fire alarm systems, when installed, shall meet the requirements of the local Fire Department and shall be maintained at all times.

~~6~~(f)Provide adequate disposal of refuse. All development outside refuse collection boundaries shall be required to include a suitable plan for the disposal of flammable refuse. Refuse disposal shall be in accordance with state, County or local plans or ordinances. ~~Where practical, refuse disposal should be by methods other than open burning~~Open outdoor burning for the purpose of disposal or burning of household rubbish and/or waste is prohibited.

~~(f)~~(g) Require fire retardant ~~roofs~~construction on all projects, as specified in the Building Code of the County of Santa Cruz~~Fire Code and the Uniform Fire Code. Exterior walls constructed of fire resistant materials are recommended, but are not necessarily required.~~

6.5.47 Fire Protection Standards for Land Divisions Outside the Urban Services Line

Require all new minor land divisions and subdivisions outside the Urban Services Line to meet the following fire protection standards:

(a) If a proposed building site is located on a dead-end access road and is more than one-half mile from the nearest intersection with a through road, then secondary access must be provided. (See section 6.5.~~5~~8, Standards for Dead-End Roads). If building site is located within a 5 minute response time from the fire department and within 500 feet of a county maintained road, then secondary access will not be required. Secondary access is defined as a 12 foot wide all-weather surface roadway with a recorded right of access and maintenance agreement. The secondary access may be provided with a gate or other barrier on the approval of the ~~Fire Chief~~fire code official. If these conditions cannot be met, development may take place only at the lowest density allowed for the area by the General Plan and LCP Land Use Plan.

(b) All primary and secondary roads shall meet the requirements of this section and shall be maintained through a County Service Area or a joint road maintenance agreement with all property owners of record.

(c) Location within the response time of 20 minutes from the fire station which is responsible for serving the parcel. Response time is defined as the length of time between the dispatch of ground fire vehicles from the fire station to their arrival at the location of the proposed structure(s). In areas exceeding 20 minutes response time, development may take place only at the lowest density allowed by the General Plan and LCP Land Use Plan.

(d) Locate the building site outside any designated Critical Fire Hazard Area and Very High Fire Hazard Severity Zone (VHFHSZ). If building sites cannot be located outside a Critical Fire Hazard Area and VHFHSZ, the following criteria shall be met:

(1)If the building site is served by a through access road or by secondary access, development may be approved only at the lowest density allowed by the General Plan and LCP Land Use Plan.

(2)If the parcel is on a dead-end access road and cannot develop secondary access, development may consist of only one single-family residence on the existing parcel of record; all land divisions must be denied.

(e) The project can meet the vegetation modification requirements called for by the ~~Fire Chief~~fire code official, based upon an on-site inspection, including appropriate erosion control facilities. The homeowner must maintain this vegetation modification in order to assure long-term protection. Land clearing or vegetation modification shall be in conformance with the Erosion Control Ordinance of the Santa Cruz County Code, including obtaining a Land Clearing Approval, if required, and state timberland conversion regulations, if applicable.~~which exceeds one acre, whether planned to take place prior to or after development approval, must submit an erosion control plan for the review and approval of the County Watershed Management Section. Vegetation modification plans shall not be allowed which introduce non-native invasive plant species, and wherever possible should utilize native fire-resistant vegetation.~~

(f) The project can meet and maintain the standards established by the ~~Fire Chief~~fire code official for water supply and/or water storage for fire-fighting purposes.

~~(g) Mitigable Critical Fire Hazard Areas. If the project lies in a Critical Fire Hazard Area and within the area bordered by the following access roads: From Day Valley Road to Freedom Blvd., to Hames Road, to Browns Valley Road to Hazel Dell Road, to Gaffey Road, down Highway 152 to Carlton Road, Carlton Road to Highway 129 and ending at Murphy Road,* and the project can meet the water storage standards, then the development may proceed at a density as determined by the Rural Density Matrix. Mitigation was based upon the following criteria:~~

~~(1) extent of the critical fire hazard vegetation;~~
~~(2) distance to adjacent fire hazard areas;~~
~~(3) accessibility for fire-fighting equipment;~~
~~(4) air moisture content;~~
~~(5) historic record of wildland fires;~~
~~(6) slope and terrain.~~

~~*This area has been mapped to denote areas where the fire hazard is of lesser concern, if mitigated by vegetation modification and water supply/storage supplementation. These maps are available at Santa Cruz County Planning Department, or at the California Department of Forestry and Fire Protection headquarters for review.~~

6.5.~~5~~8 Standards for New Dead End Roads

Prohibit newly constructed dead-end roads without secondary access serving more than one parcel in new minor land divisions or subdivisions which exceed the following distances from an adequate through road unless approved by the applicable fire protection agency, the Department of Public Works, and by the Planning Commission; in no case shall a new dead-end road exceed ½ mile in length.

Urban & Suburban General Plan and LCP Land Use Plan designation 500’
Rural General Plan and LCP Land Use Plan designation 1000’
Mountain General Plan and LCP Land Use Plan designation 1500’

The standard for new subdivisions of 5 or more lots shall not exceed 500’ unless recommended by the applicable fire protection agencies and the Department of Public Works, and approved by the Planning Commission.

6.5.~~6~~9 Maintenance for Private Roads
Require the creation or expansion of County Service Areas (to provide road maintenance), road maintenance agreements or associations (deemed adequate to provide appropriate road maintenance) for all new private roads, and for land divisions in rural areas served by private roads.

6.5.~~7~~10 (LCP) Certification of Adequate Fire Protection Prior to Permit Approval
Require all land divisions, multi-unit residential complexes, commercial and industrial complexes, public facilities and critical utilities to obtain certification from the appropriate fire protection agency that adequate fire protection is available, prior to permit approval.

6.5.~~8~~11 (LCP) Public Facilities Within Critical Fire Hazard Areas
Discourage location of public facilities and critical utilities in Critical Fire Hazard Areas and Very High Fire Hazard Severity Zones. When unavoidable, special precautions shall be taken to ensure the safety and uninterrupted operation of these facilities.

6.5.~~9~~12 (LCP) Consistency With Adopted Codes Required for New Development
Require all new development to be consistent with the ~~Uniform~~California Fire Code, California Building Code, and other adopted County and local fire agency ordinance.

6.5.~~10~~13 (LCP) Land Divisions Access Requirements
(a) Require all private roads used for either primary or secondary access to be maintained through road maintenance agreements and/or associations or through a County Service Area.
(b) Prohibit land divisions where any new building site is located more than ½ mile from a through road unless secondary access is provided.
(c) In the North Coast and Bonny Doon planning areas, prohibit new land divisions where any new building site is located more than ½ mile from a publicly maintained road even where secondary access is provided.

6.5.~~11~~14 Fire Protection Standards for Land Divisions Inside the Urban Services Line
Require all new land divisions within the Urban Services Line to be consistent with the California Fire Code, California Building Code, and other adopted County and local fire agency ordinances.

Programs

a. Encourage fire protection agencies to enter into first alarm response and initiate contractual agreements in order to assure that the fire unit nearest the fire will respond on first alarm to a fire emergency. (Responsibility: County Fire Marshal, Board of Supervisors, local fire protection agencies)

b. Newly constructed or approved public and private roads and streets must be identified by a name or number through a consistent countywide system, which provides for sequenced or patterned numbers and/or non-duplicating naming within the County. All signs shall be mounted and oriented in a uniform manner. This section does not require any entity to rename or renumber existing roads or streets. Nor shall a roadway providing access only to a single commercial or industrial occupancy require naming or numbering. (Responsibility: ~~Office of Emergency Services~~Planning Department, County Fire Marshal)

c. Define levels of fire protection services using criteria relating to distance from fire stations, density of development and magnitude of fire risk. (Responsibility: Board of Supervisors, local fire protection agencies)

d. Develop ~~fire~~fuel break standards for new development to separate communities or clusters of structures from native vegetation. (Responsibility: County Fire Marshal, Board of Supervisors, ~~State Department of Forestry,~~ and local fire protection agencies)

e. Develop an overall ~~fire~~fuel break plan in Critical Fire Hazard Areas and implement the plan in conjunction with the ~~Department of Forestry~~CAL FIRE and fire protection agencies. (Responsibility: ~~California Department of Forestry and Fire Protection~~County Fire Marshal, local fire protection agencies, Office of Emergency Services)

f. Provide, to the maximum extent feasible, two emergency access routes for all communities, with at least one developed to County standards. (Responsibility: Board of Supervisors, Planning Department, Public Works)

g. Upgrade water distribution systems where deficient to ensure adequate peak load water supply requirements for fire protection within the service areas of recognized water purveyors. Priority shall be given to areas within the Urban Services Line. (Responsibility: Water Purveyors, County Fire Department, local fire protection agencies, County Office of Emergency Services)

h. Give priority to areas within the Urban Services Line when planning expansion of fire protection facilities and equipment. (Responsibility: fire protection agencies, Board of Supervisors)

~~i. Encourage all fire protection agencies to participate in the development and implementation of a joint communications center. (Responsibility: Board of Supervisors, Communications Director, County Fire Department, California Department of Forestry and Fire Protection, local fire protection agencies, County Office of Emergency Services)~~

~~j.~~i. ~~Update~~ A~~a~~nnually review the "Santa Cruz County Master Fire Plan" and the "Santa Cruz County Community Wildfire Protection Plan", and periodically update the plans as necessary.~~"Fire Protection Improvement Program and Long-Range Plan for Santa Cruz County."~~ (Responsibility: ~~Board of Supervisors, County Fire Marshal, County Office of Emergency Services~~CAL FIRE and Resource Conservation District)

~~k.~~j. Encourage ~~the State Department of Forestry~~CAL FIRE to provide land and air fire-fighting facilities and equipment adequate to meet estimated peak fire demands. (Responsibility: Board of Supervisors, County Fire Marshal)

~~l.~~k. Encourage fire protection agencies to establish educational fire prevention programs in order to have the public recognize their responsibility in preventing fires. (Responsibility: ~~California Department of Forestry and Fire Protection,~~ County Fire Marshal, local fire protection agencies, County Office of Emergency Services)

~~m.~~l. Review and update on a periodic basis the countywide Disaster Contingency Plan. Include the appropriate County agencies in all phases of disaster contingency planning. (Responsibility: Board of Supervisors, Office of Emengency Services)

(LCP) ~~n.~~m. Update the Critical Fire Hazard Map as new site-specific information becomes available which more precisely defines these areas. (Responsibility: Planning Department, County Fire Department, ~~California Department of Forestry and Fire Protection~~CAL FIRE, local fire protection agencies)

~~6.2.8~~n. Identify high fire risk areas within the Urban Services Line and rural areas with topography, hazardous fuels, structures, density similar to those found in the Oakland Hills fire of 1991. (Responsibility: Planning Department, County Fire Marshal, local fire protection agencies, Board of Supervisors)

(LCP) ~~p.~~o. In cooperation with fire protection agencies, develop coordinated action programs to reduce the hazard to existing development in critical fire hazard areas such as the following:

(1) Assessment districts to finance road improvements and secondary access; water storage, distribution and hydrant facilities; purchase of pumper trucks and/or vegetation clearance and fire break construction.
(2) Fire hazard inspection and code enforcement.
(3) Public education programs on fire prevention.

(Responsibility: Planning Department, County Fire Marshal, local fire protection agencies, Board of Supervisors)

~~q.~~p. Amend and update the Santa Cruz County General Plan ~~Fire~~ Safety Element, Fire Hazards section, as needed, to reflect fire code amendments. (Responsibility: Board of Supervisors, County Fire Marshal, local fire protection agencies, Planning Department)

HAZARDOUS AND TOXIC MATERIALS

~~For more than a decade,~~ Santa Cruz County government has played a leadership role in helping to minimize toxic hazards to the citizens and residents of Santa Cruz County. In 1984, the Board of Supervisors adopted as a statement of basic policy that it should be a statewide goal completely to eliminate the toxic contamination of any portion of the State's environment, including the land, water, and air resources of the State.

In June 1990, by adopting Measure C, the people of Santa Cruz County made a specific finding that "the introduction of toxic chemicals into all parts of the environment, in increasing quantities, has led to the pollution of the ocean, and of fresh water supplies, and to the presence of toxic chemicals in the tissues of virtually every living thing, placing the future of life on this planet in jeopardy." Measure C requires Santa Cruz County government to attempt to eliminate the use of toxic materials within Santa Cruz County where possible, and requires the reduction, recycling, and reuse of such materials, to the greatest extent possible, where complete elimination of their use is not feasible.

This section of the General Plan and LCP Land Use Plan states the basic objectives of Santa Cruz County with respect to hazardous and toxic materials, and also includes provisions relating to hazardous waste management. The provisions relating to hazardous waste management are a summary of the facilities siting provisions of the Santa Cruz County Hazardous Waste Management Plan (CHWMP), required by State law. Additional background information and more detailed policies, programs, and technical data are included in the County's Hazardous Waste Management Plan.

Objective 6.6 Hazardous and Toxic Materials

To eliminate, to the greatest degree possible, the use of hazardous and toxic materials, and where it is not feasible completely to eliminate the use of such materials, then to minimize the reduction in the use of such materials, so as to ensure that such materials will not contaminate any portion of the County's environment, including the land, water, and air resources of the County.

Policies

6.6.1 Hazardous Materials Ordinance

Maintain the County's Hazardous Materials ordinance, placing on users of hazardous and toxic materials the obligation to eliminate or minimize the use of such materials whenever possible, and in all cases to minimize the release, emission, or discharge of hazardous materials to the environment, and properly to handle all hazardous materials and to disclose their whereabouts. Further, maintain the County's ordinance relating to ozone-depleting compounds. Ensure that any amendment of existing ordinance provisions is based on a finding that the amendments will provide protection to the environment and the community against toxic hazards that is equal to or stronger than the existing provisions.

6.6.2 County Use of Toxic/Hazardous Materials

Eliminate wherever possible, and minimize where elimination is not feasible, the use of hazardous and toxic materials in the operations and programs of County government.

6.6.3 Maintenance of Standards for Use and Control

Ensure that Santa Cruz County maintains standards for the use and control of hazardous materials which are at least equal in their protection for the environment and the community to measures imposed by other local governments within Santa Cruz County, and in adjoining counties.

Programs

a. Require an annual report by County departments on departmental efforts to eliminate and reduce the use of toxic materials in County operations. (Responsibility: each County department, County Administrative Office, Board of Supervisors)

b. Enact an ordinance regulating the storage, transportation, and use of toxic gases, with standards at least as protective as those found in comparable ordinances adopted by local governments within Santa Clara County. (Responsibility: Environmental Health, Planning Department, County Office of Emergency Services, Board of Supervisors)

c. Implement, where funding can be made available, programs to provide assistance to businesses, farmers, and homeowners, to assist them in eliminating and reducing the use of toxic materials. (Responsibility: Environmental Health, Planning Department, Agricultural Commissioner, County Administrative Office)

d. Continue County programs facilitating the safe disposal of household hazardous wastes. (Responsibility: Public Works)

HAZARDOUS WASTE MANAGEMENT

The Hazardous Waste Management section is a summary of the facilities siting provisions of the Santa Cruz County Hazardous Waste Management Plan (CHWMP), required by state law. Additional background information and more detailed policies, programs and technical data are included in the CHWMP. The intent of this section is to restate the substantive provision, relating to hazardous waste management facilities siting of the CHWMP. If any portion of this section appears to conflict with the County Hazardous Waste Management Plan, the County Hazardous Waste Management Plan shall prevail.

Objective 6.7 Hazardous Waste Management

To ensure that hazardous waste management facilities will be safely sited to protect public health and the environment, and to ensure the general management of hazardous waste through the year 2000 occurs in accordance with the implementation policies specified in the Santa Cruz County Hazardous Waste Management Plan, and any applicable state and federal regulations.

ALL FACILITIES WHICH COLLECT, HANDLE, TRANSPORT, TREAT, STORE OR DISPOSE OF HAZARDOUS WASTE

Policies

6.7.1 Managing the County's Fair Share of Hazardous Waste
Any proposed facility shall be consistent with the fair share principle, and with any inter-jurisdictional agreements on hazardous waste management entered into by Santa Cruz County.

6.7.2 Sizing Facilities
Facilities shall be designed and sized primarily to meet the hazardous waste management needs of this County, or to meet any broader future commitments made as part of an inter-jurisdictional agreement, or upon a determination of the local body that the project meets local planning criteria and serves public needs.

6.7.3 Location of Facilities
Require any proposed hazardous waste management facility to be located only in those general areas identified in the Hazardous Waste Management Plan.

6.7.4 Conformance to Federal, State and Local Siting Standards
Require all hazardous waste land disposal facilities to conform to the siting standards contained in state statues as well as conform to the General Plan and LCP Land Use Plan and Zoning ordinances of the County of Santa Cruz.

6.7.5 Floodplains and Sensitive Habitats
Prohibit any facility to be located within a floodplain or area which could adversely impact any sensitive habitat.

6.7.6 Depth to Groundwater

Require a minimum 20 foot distance between any hazardous waste facility and the highest anticipated elevation of the underlying groundwater. Proposed sites must be elevated for this criteria by a registered geologist before permitting.

6.7.7 Mineral Resources Areas

Allow facilities to be sited only where they will not preclude extraction of minerals necessary to sustain the economy of the state.

6.7.8 Non-Attainment Air Areas (Federal Clean Air Act)

Allow facilities to be sited within federally designated Non-Attainment Air Areas only under the following conditions:

(a) A risk assessment must be completed and shall consider physical and chemical characteristics of the specific types of wastes that will be handled and design features of the facility. The assessment must show that emissions will not significantly contribute to non-attainment of standards;
(b) The emissions generated must be mitigated; and
(c) The emissions generated from such facilities shall not be greater than those associated with the transportation of hazardous waste outside of the non-attainment area.

6.7.9 Prime Agricultural Land

Demonstrate an overriding public service need before approving the siting of hazardous waste management facilities in commercial agricultural lands.

6.7.10 Distance From Residences

(a) Require a Risk Assessment for the siting of a hazardous waste management facility and a 500 foot minimum buffer zone from the nearest urban and suburban density residentially zoned areas. The risk assessment shall consider the physical and chemical characteristics of the specific type of waste(s) that will be handled and any design feature necessary for the facility.
(b) Require any facility handling ignitable, volatile or reactive wastes to be sited a minimum of 2000 feet from the nearest residence unless the developer can show that the public is sufficiently safeguarded in the event of an accident.

6.7.11 Distance from Immobile Populations

(a) Require a Risk Assessment for the siting of a hazardous waste management facility and a 500 foot minimum buffer zone from an immobile population, which includes places where large numbers of people may gather and also includes schools, hospitals, convalescent homes, prisons, facilities for the mentally ill, ~~etc~~or similar places. The risk assessment shall consider the physical and chemical characteristics of the specific type of waste(s) that will be handled and any design feature necessary for the facility.
(b) Require any facility handling ignitable, volatile or reactive wastes proposed to be sited within one mile of an immobile population, to prepare, at the developer's expense, a study detailing the maximum credible accident from a facility's operation.

6.7.12 Emergency Response/Safe Transportation Routes

Locate facilities of any type so as to minimize distances to major transportation services. Locate all facilities in areas where the fire departments are trained to respond to hazardous materials accidents. Road networks leading to major transportation routes should not pass

through residential neighborhoods, should minimize residential frontages in other areas, and shall be demonstrated to be safe with regard to road design and construction, weight allowances, accident rates, excess traffic, etc.

6.7.13 Public Services
Limit all facility types to sites where public water and sewer and emergency facilities are available, except for existing landfill sites.

TRANSFER STATIONS FOR HOUSEHOLD AND SMALL QUANTITY BUSINESS GENERATORS

Existing and projected hazardous waste generation rates identified in the Santa Cruz County Hazardous Waste Management Plan indicate a need only for local collection and temporary storage (transfer) facilities to receive hazardous waste from household and small quantity (business) generators. Any and all such facilities sited in the unincorporated area of Santa Cruz County shall be subject to the following siting policies.

Policies

6.7.14 Require Environmental Review
Require proposed facilities to follow the Environmental Review procedures of the County. At a minimum, projects shall be reviewed for their susceptibility to natural hazards, including seismic and slope stability; and reviewed for their impacts to natural resources including groundwater and Water Supply Watersheds. Consider approval of such facilities only when a risk assessment is performed which indicates that the risks can be made acceptable through proper engineering and appropriate conditions are included as part of the design and construction of the facility.

6.7.15 Permeable Stratas and Soils
Require all above-ground facilities to have engineered structural design features, common to other types of industrial facilities, including spill containment and monitoring devices.

6.7.16 PSD Area (Prevention of Significant Deterioration Areas)
Permit these facilities to be sited in PSD Areas, as defined in the Hazardous Waste Management Plan, only if they are necessary to handle potentially hazardous wastes generated by visitors or residents in recreational or cultural facility areas which are in the PSD zone. PSD areas meet the ambient air standards of the Clean Air Act, and thus should be prevented from significant deterioration.

6.7.17 Proximity to Waste Generators
Locate household hazardous waste collection facilities close to residential and/or commercial zoned areas to encourage their use.

6.7.18 Recreational, Historic, Cultural and Scenic Areas
Allow household hazardous waste management facilities to be located in areas of recreational, historic, cultural or scenic resources only to the extent that they are necessary to handle hazardous wastes generated by visitors, workers or residents in these areas.

TREATMENT /STORAGE DISPOSAL FACILITIES FOR INDUSTRIAL GENERATORS

Existing and projected hazardous waste generation rates identified in the Santa Cruz County Hazardous Waste Management Plan do not indicate a need for local treatment, storage or disposal facilities for industrial generators within Santa Cruz County. The existing and projected needs for treatment, storage and disposal of hazardous wastes can continue to be met by out-of-County facilities. Therefore no industrial treatment, storage or disposal facility will be allowed within Santa Cruz County, unless. ~~If~~ at some future time a need can be demonstrated as determined by the Board of Supervisors., Upon such a determination, ~~then~~ the following siting policies shall apply.

Policies

6.7.19 Seismic Hazards
Prohibit facilities of any type to be built in zones of potential surface rupture faulting, areas of high liquefaction potential, and areas most susceptible to landslides (slopes greater than 15%).

6.7.20 Slope Stability
Prohibit facilities of any type to be built in zones of slope instability. These areas include slopes greater than 30% and areas subject to liquefaction and subsidence due to natural and man-made causes.

6.7.21 Groundwater Resources
Prohibit facilities of any type to be built in areas which are known or suspected to be a sole source aquifer or principal~~e~~ aquifer recharge area for a region.

6.7.22 Water Supply Watersheds
Prohibit facilities of any type to be built in areas which are known or suspected to be a Water Supply Watershed area.

6.7.23 Permeable Stratums and Soils
Exclude these facilities unless they are immediately underlain by geologic materials with a permeability of not more than 1 x 10 to the seventh power cm/second, and thick enough to prevent vertical movement of fluid to groundwater.

6.7.24 Prevention of Significant Deterioation (PSD) Areas
Consider and, if appropriate, conditionally approve, facilities in PSD areas, unless an analysis shows that air emissions cannot be adequately mitigated. These are areas which meet the ambient air standards of the Clean Air Act, and thus should be prevented from significant deterioration.

6.7.25 Coastal Zone (LCP)
Prohibit hazardous waste treatment/storage/disposal facilities of any type to be built in the areas of the Coastal Zone.

6.7.26 Recreational, Cultural or Scenic Areas

Prohibit industrial hazardous waste management facilities in areas of historic preservation and other cultural or scenic areas, as defined by the Santa Cruz County General Plan and LCP Land Use Plan.

6.7.27 Proximity to Waste Generators

Locate industrial hazardous waste collection facilities close to Large Quantity Generator (LOG) sources to minimize the risk of transportation.

Programs

a. Update the County Hazardous Waste Management Plan a minimum of every three years for compliance with State and federal regulations. (Responsibility: Environmental Health, Planning Department, Board of Supervisors)

b. Identify the types of treatment, storage and disposal facilities needed in Santa Cruz County, identify general areas where such facilities can be located, and, where appropriate, develop agreements with other counties to handle hazardous wastes produced in Santa Cruz County. (Responsibility: Environmental Health, Planning Department, Public Works, Board of Supervisors)

ELECTRIC AND MAGNETIC FIELD EXPOSURE HAZARDS

A number of ~~recent~~ studies have examined the potential for risk to human health that may exist due to long term exposure to electric or magnetic fields found adjacent to electric powerlines. Some of these studies have found a potential for risk to human health. Siting of sensitive land uses (such as schools) and housing next to powerlines may, therefore, have an environmental health impact on users of the sensitive land uses and the residents of such housing.

ELECTRIC AND MAGNETIC FIELDS

In Santa Cruz County electric power is transferred from power generating stations to substations by means of 115,000-volt transmission lines. Substations are used to "step down" the electricity's voltage to facilitate the transfer from transmission to distribution lines. Distribution lines bring electricity from substations into neighborhoods. In Santa Cruz County, distribution lines operate at voltages from 4,000 to 21,000 volts. A magnetic field measured in units of milligauss, and an electric field, measured in volts per meter, found in the vicinity of these powerlines, and commonly called together the electromagnetic field, are a consequence of the delivery of the electric power. These fields fall off rapidly in strength with increased distance from the powerlines.

The strength of a magnetic field at a given site depends on several factors such as how many conductors are carrying the electric current, their spacing, and height above the ground. The magnetic field will also be proportional to the value of electric current being carried, which varies with electric power demand by time of day, day of week, season of the year, and changes over the years due to growth. Furthermore, the magnetic field also varies with height, so that the magnetic field in a second story bedroom could be substantially larger than the magnetic field found three feet off the ground in a first story living room. This is a consequence of getting closer to the current carrying conductors with increase in structure height or even change in ground height. The value of the magnetic field is essentially independent of the powerline voltage.

In contrast to the magnetic field, the electric field from powerline does not depend on the current being carried, but it dependent on the voltage of the line. The higher the line voltage the higher will be the electric field magnitude around the line. The value of the electric field will also be drastically modified by objects in the field. For example, the presence of housing, trees, shrubs, and people will markedly change the electric field value at a given location.

Measurements of the existing electric and magnetic fields across a given site, and at a given time, are easily made and may be available at no cost from local utilities. Estimates of the fields expected can also be obtained from existing computer programs, but would be based on assuming ideal conditions, such as parallel lines with no sag and level ground.

A typical 115,000-volt transmission powerline would have a magnetic field of 25 to 40 milligauss directly under the powerline at a height of three feet. The magnetic field would decrease with distance from the powerline and would drop off to a level of 1.5 milligauss at a distance of about 150 feet from the powerline, at the same three foot height.

The same 115,000-volt transmission powerline might have an electric field of 1,000 volts per meter directly under the powerline and the electric field would drop to 50 volts per meter at a distance of somewhere between 100 and 200 feet from the powerline. Any objects in the vicinity of the powerline would drastically change these electric field values.

Numerous studies have suggested a potential for adverse health effects due to long term exposure to electric and magnetic fields, such as found near powerlines. The siting of housing, or other habitable structures, such as schools, near powerlines will increase the electric and magnetic field exposure to future residents above the background levels and may thus increase the risk of disease.

LIMITING ELECTRIC AND MAGNETIC FIELD EXPOSURE

Due to the potential for adverse health effects a practice of "prudent avoidance" is recommended. Prudent avoidance means limiting exposures that can be avoided with relatively small investments of money or effort and generally includes increasing the distance and decreasing the time of exposure between people and sources of electric and magnetic fields.

There are no national standards or regulations specifically for powerline magnetic fields. Some local attempts at regulation have, however, been made to date. California has not established any limitations for siting homes near powerlines, although some guidelines are currently being used for school sites near transmission powerlines. The School Facilities Planning Division requires that no new schools be sited 100 feet from the edge of the right-of-way of 100,000-to-110,000-volt lines; 150 feet from 220,000-to-230,000- volt lines; and 250 feet from 345,000-volt lines.

There are generally three approaches to mitigating adverse impacts from electric and magnetic fields. The first typically involves site planning techniques to set habitable structures back from sources of electric and magnetic fields and thereby avoid hazardous doses. The second is to use engineering solutions, such as reconfiguring the powerlines, to mitigate electric and magnetic fields. The third, more difficult (and costly) approach involves placing powerlines underground and removing constraints to site development by significantly diminishing the magnetic field strength or completely eliminating the electric field, thus reducing the potential health hazard.

1. **Site Planning**
   With a transmission or distribution powerline crossing a subdivision site, the subdivision could be designed to set habitable buildings back from the powerlines, in a manner consistent with the current state of scientific knowledge.

2. **Undergrounding the Powerline**
   It is possible substantially to reduce the electric and magnetic fields by undergrounding the powerlines in a metallic pipe. The electric field would be esentially eliminated by the shielding of the metallic pipe and the magnetic field could be considerably reduced because the conductors are placed closer together causing the magnetic fields from the individual conductors to partially cancel each other.

3. **Reconfiguring the Powerlines**
   The number of conductors in a transmission or distribution powerline can be increased and their current fed (phased) in ways to achieve significant cancellation of the electric and magnetic fields near the ground. The techniques to considerably lower the fringing electric and magnetic fields around powerlines are known at this time. In addition there is considerable research effort underway in this area.

Objective 6.8a Electric and Magnetic Energy

To protect the public from potential health hazards associated with electric and magnetic fields based on the then current state of scientific knowledge through appropriate limitations on the use and development of land near electric transmission and distribution powerlines and substations which could create health hazards.

Objective 6.8b New Electrical Facilities

The planning, siting, and construction of future electrical facilities should minimize electric and magnetic fields near sensitive areas (for example schools, hospitals, playgrounds), residential uses, existing areas of high electric and magnetic exposure, and areas of future development.

Policies

6.8.1 Prudent Avoidance

In regard to exposure of electric and magnetic fields, the policy of the County of Santa Cruz is one of "prudent avoidance." Prudent avoidance assumes that exposure to electric and magnetic fields may present a health risk. The policies in this section shall apply to residential land divisions or other new discretionary development and other sensitive land uses, not including development of one single-family dwelling on an existing lot of record.

6.8.2 Measuring Ambient Magnetic Fields

Require the measurement of the ambient magnetic fields for all residential land divisions or other new discretionary development (not including development of one single-family dwelling on an existing lot of record) where such property is within 150 feet of 21 kv or greater transmission or distribution powerlines of the electric power delivery system. The measurements should delineate the area on the site where the magnetic field is above the level at which potential health effects may exist, based on the then current state of scientific knowledge.

6.8.3 Development Mitigation Measures

Utilize the following techniques to minimize exposure to potentially hazardous electric and magnetic fields from electric powerlines.

(a) Site Planning – Locate and/or cluster habitable building envelopes away from the potentially hazardous electric and magnetic fields consistent with the current state of scientific knowledge.

(b) Underground the Powerline – Reduce the electric and magnetic fields by undergrounding powerlines in a metallic pipe or other appropriate insulator.

(c) Reconfigure the Powerline – Reconfigure lines and conductors in transmission or distribution lines to achieve significant cancellation of the electric and magnetic fields near the ground.

6.8.4 New Transmission and Distribution Facilities

The siting of new transmission and distribution powerlines and substations shall minimize electric and magnetic fields near existing sensitive areas, residential uses, existing areas of high electric and magnetic field exposure, and areas of future development. Public exposure to electric and magnetic fields shall not be increased where practical alternatives exist.

Programs

a. Work with PG&E and other relevant private and public organizations to maintain EMF informational handouts and reference lists for public education. (Responsibility: Planning Department, Board of Supervisors)

b. Identify those areas where a potential hazard from exposure to electric and magnetic fields exist by mapping the location of the transmission lines, distribution lines, and substations in the County. (Responsibility: Planning Department)

NOISE

Objective 6.9a Noise Environment

To promote land uses which are compatible with each other and with the existing and future noise environment. Prevent new noise sources from increasing the existing noise levels above acceptable standards and eliminate or reduce noise from existing objectionable noise sources.

Objective 6.9b Noise Element

To educate and assist the residents of Santa Cruz County in the meaning and use of this noise element.

Policies

6.9.1 Land Use Compatibility Guidelines

Require new development to conform with the Land Use Compatibility Guidelines (Figure 6-1). All new residential and noise sensitive land developments should conform to a noise exposure standard of 60dB Ldn (day/night average noise level) for outdoor noise and 45 dB Ldn for indoor noise. New development of land which cannot be made to conform to this standard shall not be permitted. Assure a compatible noise environment for various land uses through site planning, building orientation and design, interior layout, and physical barriers, landscaping, and buffer areas where appropriate.

Figure 6-1
Land Use Compatibility For Community Noise Environments

LAND USE CATEGORY	EXTERIOR NOISE EXPOSURE Ldn or CNEL (Both are weighted in Decibels by when noise occurs – day or night) 55	60	65	70	75	80
Residential, Hotels, and Motels						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						
Industrial, Manufacturing, Utilities, and Agriculture						

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

UNACCEPTABLE
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

~~Notes:~~
~~Ldn = Day/Night Average Sound Level~~
~~CNEL = Community Noise Equivalent Level~~

6.9.2 Acoustical Studies

Require acoustical studies for all new residential developments with a future Ldn noise exposure greater than 60dB. The studies shall satisfy the requirements set forth in Title 24, Part 2 of the California Administrative Code, Noise Insulation Standards. Require acoustical studies for all new projects which may affect the existing noise level and may not conform to the Land Use Compatibility Guidelines in Figure 6-1.

6.9.3 Noise Sensitive Land Uses

Require new development of residential and other noise sensitive land uses, where existing stationary noise sources such as a quarry exceeding the standards of Figure 6-2, to incorporate effective mitigation measures to reduce noise exposure to or below the levels of Figure 6-2.

6.9.4 Commercial and Industrial Development

For all new commercial and industrial developments which would increase noise levels above the maximum allowable standards of the Land Use Compatibility Guidelines in Figure 6-1, or Figure 6-2, the best available control technologies will be used to minimize noise levels. In no case shall the noise levels exceed the standards of Figure 6-2.

Figure 6-2
Maximum Allowable Noise Exposure
Stationary Noise Sources (1)

	Daytime (5) (7PM to 10PM)	Nighttime (2,5) (10PM to 7AM)
Hourly Leq – average hourly noise level, dB (3)	50	45
Maximum level, dB (3)	70	65
Maximum Level dB – Impulsive Noise (4)	65	60

dB = decibel

(1) As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

(2) Applies only where the receiving land use operates or is occupied during nighttime hours.

(3) Sound level measurements shall be made with "slow" meter response.

(4) Sound level measurements shall be made with "fast" meter response.

(5) Sound level measurements shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels. Allowable levels shall be reduced 5dB if the ambient hourly Leq is at least 10 dB lower than the allowable level.

6.9.5 Residential Development

Require that future residential development adjacent to the railroad tracks meet both outdoor and indoor maximum noise level standards stated in the General Plan and LCP Land Use Plan.

6.9.6 Vibrations from Rail

Evaluate vibrations from rail activities for future development within 200 feet of the railroad tracks as part of environmental review.

6.9.7 Construction Noise

Require mitigation of construction noise as a condition of future project approvals.

Programs

a. Review the Ground Transportation Noise Contours when the Circulation Element is updated and the Airport Noise Contours when the Airport Master Plans are updated and amend when necessary. (Responsibility: Planning Department, Planning Commission)

b. Work together with cities, transit authorities, school districts, rest homes, hospitals, and commercial and industrial uses to mitigate existing noise problems. (Responsibility: Planning Department, Environmental Health)

c. Obtain and make available an educational brochure to inform the public of the general hazards of everyday noise, including the various sources inside and outside of the home, consumer advice regarding products, hearing protection techniques, etc. (Responsibility: Planning Department, Office of Consumer Affairs)

d. Consider establishing a Noise Abatement section in the Environmental Health Services, the Planning Department or the Sheriff's Department to facilitate enforcement of County noise control policies as well as noise-related "nuisance" and "disturbing the peace" ordinances. (Responsibility: Board of Supervisors)

e. Enforce the Santa Cruz County Off-road Vehicle ordinance either through use of personnel or physical barriers. (Responsibility: Board of Supervisors, Sheriff's Department)

f. Consider amending chapter 8.3 of Volume I of the Santa Cruz County Code to limit the allowed hours of construction activities near residential areas. (Responsibility: Board of Supervisors)

Objective 6.10 Ground Transportation

To maintain or lower existing noise levels generated by the ground transportation system.

Policies

6.10.1 Environmental Review

Require environmental review of all proposed transportation projects which may increase the average day/night noise levels including any increased or new uses of the Southern Pacific Railroad right-of-way.

6.10.2 Evaluation and Mitigation

Require the evaluation of mitigation measures for any project that would cause significant degradation of the noise environment by:

(a) Causing the Ldn in existing residential areas to increase by 5 dB or more and remain below 60 dB;
(b) Causing the Ldn in existing residential areas to increase by 3 dB or more and, thereby, exceed an Ldn of 60 dB;
(c) Causing the Ldn in existing residential areas to increase by 3 dB or more if the Ldn currently exceeds 60 dB.

6.10.3 County Road Surfacing and Maintenance

Utilize the latest noise-reducing techniques for County road surfacing and maintenance.

6.10.4 Sirens and Horns

Limit the use of sirens and horns to the minimum necessary.

Programs

a. Attempt to reduce the number of vehicles on the road by vigorously promoting the 30 percent transit, 10 percent bicycles, and 2.0 persons per vehicle occupancy goals which are the 1995 goals of the Regional Transportation Plan. (Responsibility: Board of Supervisors, Transportation Commission, Planning Department)

b. Work with and encourage the California Highway Patrol's existing noise abatement program and enforce existing California State Noise Emission Standards. Establish a Noise Abatement section in the County Sheriff's Department (including purchase of necessary equipment), in order to keep the level of enforcement of State muffler laws within the County's control. (Responsibility: California Highway Patrol, County Sheriff's Department)

c. Support State legislation for noise abatement design measures in all State Highway projects within the County. (Responsibility: Board of Supervisors, Transportation Commission)

d. Analyze changes in street patterns with regard to attendant noise impacts and route and/or divert traffic in order to minimize noise impact upon sensitive land uses such as residences, hospitals, nursing homes, schools and parks. Trucks and automotive through traffic should utilize only designated truck and through routes. Neighborhoods should be protected from through traffic diversion techniques. (Responsibility: Planning Department, Public Works, Board of Supervisors)

~~e. Maintain and retrofit County vehicles to lower noise emission levels. Consider noise emission levels in the purchase of new vehicles. (Responsibility: General Services)~~

Objective 6.11 Air Transportation

To balance the need for aviation service in the County with the right to develop lands around the airports.

Policies

6.11.1 Airport Expansion

Require a development permit and environmental review for any new air strip or airport or any proposed expansion of air strips or airports over which the County has jurisdiction, including any increase in the number of flights which may increase the noise level of surrounding areas.

6.11.2 Restricting Residential Development

Limit single-family residential development to no more than one dwelling on an existing lot of record where the existing or future aircraft noise exceeds 65 Ldn.

6.11.3 Mitigation for Interior Noise

Require all discretionary residential development proposed within the 60 Ldn aircraft noise contour to mitigate interior noise 45 Ldn or less, and to limit the maximum A-weighted noise level of single aircraft overflights to 50 dBA or less.

6.11.4 Coordination with City of Watsonville

Encourage the City of Watsonville to review noise contour data for Watsonville Airport biannually and forward any new data to the County for its use.

Exhibit J

County Code Chapter 16.10
Geologic Hazards (strikethrough)

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Chapter 16.10
GEOLOGIC HAZARDS

Sections:

Prior legislation: Ords. 4048 and 4149.

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 that potential buyers are notified of property located in an area of ~~special flood~~geologic hazard, and to assure that those who occupy areas of ~~special flood~~geologic hazard assume responsibility for their actions. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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~~(19)~~(~~h~~f), 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. [Ord. 4518-C § 2, 1999; Ord. 3808 § 1, 1986; Ord. 3635 § 1, 1985; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [Ord. 4518-C § 2, 1999].

~~**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 13.03 SCCC and shall be subject to approval by the California Coastal Commission. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [Ord. 4518-C § 2, 1999].

~~**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. [Ord. 4518-C § 2, 1999].

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.~~

(~~2~~1) "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).

(2) "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. ~~Major revegetation has not occurred in barren areas.~~

(3) "Addition" means improvement to an existing structure that increases ~~the~~its 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.

(4) "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.~~

(~~8~~5) "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.~~

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

(6) "Coastal Bluff" means (1) those bluffs, the toe of which is now or was historically (generally within the last 200 years) subject to marine erosion; and (2) those bluffs, the toe of which is not now or was not historically subject to marine erosion, but the toe of which lies within an area otherwise identified in Public Resources Code Section 30603(a)(1) or (a)(2).

(7) "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 steplike 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.

(~~11~~8) "Coastal dependent uses" means any development or use which would not function or operate unless sited on or adjacent to the ocean.

(~~12~~9) "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.

(1~~3~~0) "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.~~

(1~~5~~1) "County geologist" means a County employee who is ~~registered as~~ a California licensed ~~p~~Professional ~~g~~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 p~~Professional ~~g~~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.

(16~~2~~) "County geologic advisor" means an individual who is a California licensed ~~p~~Professional ~~g~~Geologist ~~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.

(17~~3~~) "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."~~

(19~~4~~) 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:

(a) 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;

(b) Reconstruction: Modification, reconstruction or replacement of 65 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;

(c) 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;

(d) 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;

(e) 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;

(f) 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;

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

(i) Posted "Limited Entry" or "Unsafe to Occupy" due to geologic hazards, or

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

(iii) Defined as a critical structure or facility;

(h) 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 16.20 SCCC;

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

(j) 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;

(k) Installation of a septic system;

(l) 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 (1~~9~~4)(a) through (k) of this section;

(m) 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 be determined by the Planning Director to constitute development for the purposes of geologic review.

(~~20~~15) "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.

(16) "Engineering geologist" means a registered geologist who is a professional geologist licensed with the California Board for Professional Engineers, Land Surveyors and Geologists and is competent in the field of engineering geology.

(~~21~~17) "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.

(18) "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.[kme1]

(~~22~~19) "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.~~

(2~~5~~0) "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.~~

(~~31~~21) "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.

(~~3~~22) "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 ~~p~~Professional ~~g~~Geologist.

(~~3~~23) "Geologic report, full" means a complete geologic investigation conducted by an ~~certified~~ engineering geologist hired by the applicant, and completed in accordance with the County geologic report guidelines.

(24) "Geotechnical investigation / report" means a report prepared by a soils (geotechnical) engineer~~registered soils (geotechnical) engineer~~, hired by the applicant, and completed in accordance with the requirements of this Chapter. ~~County soils (geotechnical) report guidelines.~~ This term is synonymous with the term "soils investigation~~.~~" or "soils report."

(~~34~~25) "Grading" means excavating or filling land, or a combination thereof.

(~~35~~26) "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 include 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.

~~(36) "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.~~

(~~3~~27) "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.

(~~3~~28) ~~"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.~~

(~~3~~29) "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.

(4~~3~~0) "Littoral drift" means the movement of beach sand parallel to the coast due to wave action and currents.

(4~~3~~1) "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.~~

(~~46~~32) "Multiple-residential structure" means a single structure containing four or more individual residential units.

(~~47~~33) "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.~~

(~~49~~34) "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."~~

(~~52~~35) "Planning Director" means the Planning Director of the County of Santa Cruz or his or her ~~authorized employee~~designee.

(36) "Professional geologist" means a geologist who is licensed by the State of California to practice geology

(~~53~~37) "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.

(~~54~~38) "Recent" means a geologic feature (fault or landslide) which shows evidence of movement or activity within Holocene time (about the last 11,000 years).

(39) "Shoreline or 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.

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

(~~56~~40) "~~Registered geotechnical (s~~Soils~~)~~ (geotechnical) engineer" means a Professional ~~c~~Civil ~~e~~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.~~

~~(59) "Shoreline protection structure" means any structure or material, including but not limited to riprap or a seawall, placed in an area where coastal processes operate.~~

(~~60~~41) "Soils investigation / report" means a report prepared by a ~~registered~~ soils (geotechnical) engineer hired by the applicant, and completed in accordance with the requirements of this Chapter~~, hired by the applicant, and completed in accordance with the County soils (geotechnical) report guidelines~~. This term is synonymous with the term "geotechnical investigation."

(~~61~~42) 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.~~

(~~63~~43) "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.")~~

(~~66~~44) "Subsurface geologic investigation" means a geologic report prepared by ~~a certified~~a ~~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. [Ord. 5119 § 42, 2012; Ord. 4518-C § 2, 1999; Ord. 4160 §§ 4, 5, 1991; Ord. 4112 § 1, 1991; Ord. 4090 § 1, 1990; Ord. 4080 §§ 1, 2, 1990; Ord. 4024 § 4, 1989; Ord. 3997 §§ 1, 2, 1989; Ord. 3892 § 1, 1988; Ord. 3808 § 2, 1986; Ord. 3686 § 1, 1985; Ord. 3598 § 1, 1984; Ord. 3437 § 1, 1983; Ord. 3340 § 1, 1982].~~

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 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) and (F) of this section, where a full geologic report will be prepared according to the County guidelines for engineering geologic reports~~., or where t~~The County Geologist may waive the requirement for a hazard assessment based upon a determintation ~~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 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 which are located in an area of geologic hazards as identified by the County Geologist;

(~~D~~E) Potential Liquefaction Area. A site-specific ~~geotechnical~~soil investigation (with input from an engineering geologist, when required by 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.

(~~E~~F) 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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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 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 ~~certified engineering~~professional 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.

(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 be found 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 report~~s~~ shall ~~be~~remain 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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

16.10.070 Permit conditions.

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) 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 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 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 and Acknowledgement ~~declaration~~ of ~~geologic~~ Geologic ~~h~~Hazards 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, the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

(4) 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.

(C) 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.

(D) 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 and Acknowledgement of Geologic 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~~ Notice and Acknowledgement of ~~geologic~~ Geologic ~~hazards~~ Hazards 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 the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties..

(E) 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 civil engineer and reviewed by both the engineering geologist (if required by the County Geologist) and soils engineer. 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~~7) Notice of and Acknowledgement of Geologic Hazards. The developer and/or subdivider of a parcel or parcels in an area of geologic hazards shall be required to record a ~~declaration~~ Notice and Acknowledgement 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, and the mitigations (if any) that were required to reduce geologic hazards to an acceptable level, and assumption of risk by the property owner and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.

(~~7~~8) 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.

(F) Floodplains.

The provisions of Chapter 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~~G) 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. 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 assumed 100-year lifetime of the structure, as determined through geologic, geotechnical, hydrologic, or other engineering reports. The setback shall be evaluated considering not only historical shoreline and bluff retreat data, but also acceleration of shoreline and bluff retreat due to sea level rise. Continued and accelerated sea level rise totaling three feet over the 100-year lifetime of the structure shall be used in the setback evaluation.

(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 the Urban or Rural Services Line the determination of the minimum 100 year setback may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. Protection measures installed under an emergency permit shall not be factored into the setback calculation until a regular Coastal Development Permit is issued and all conditions of the permit are met. Outside the Urban or Rural Services Line the determination of the minimum 100 year setback shall not take into consideration the effect of any existing or proposed shoreline or coastal bluff protection measure.

(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.~~ On lots with legally established shoreline or coastal bluff protection measures, the required analysis under subsection (a) shall consider the condition of the existing shoreline or coastal bluff protection measure; and identify any impacts the protection measure may be having on public access and recreation, scenic views, sand supply and other coastal resources. The analysis must also identify any benefits the protection measure may provide, including but not limited to, public access, and protection of public roads and infrastructure. The analysis must evaluate opportunities to modify or replace the existing protection measure in a manner that would eliminate or reduce those impacts, while maintaining public benefits. The analysis shall also be made under an assumption the existing protection measure is not assumed to exist, in order to provide a measure of the impacts of the existing protection measure on the site conditions. All reasonable measures to eliminate or reduce impacts to coastal resources and maintain public benefits must be implemented as a condition of project approval, subject to principles of nexus and proportionality.

(d) On lots within the Urban or Rural Services Lines with a legally established coastal bluff protection measure, and an existing, legal habitable structure, the Planning Director may reduce the required 100-year setback for repair, maintenance, improvement or

reconstruction of such structures that currently encroach into the setback, and there is no alternative location on the property owner's lots to relocate the structure. No exception is allowed to the 25-foot minimum coastal bluff setback. The footprint of the portion of the structure within the 100-year setback may change, but the floor area of that portion of the footprint must not increase. The project analysis must consider the existing shoreline or coastal bluff protection structure pursuant to subsection (c).~~Foundation replacement and/or foundation upgrades that meet the definition of development per SCCC 16.10.040(19) and pursuant to SCCC 16.10.040(18) shall meet the setback described in subsection (H)(1) of this section, except that an exception to the setback requirement may be granted for existing structures that are wholly or partially within the setback, 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; or~~

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

(e) Additions, including second story and cantilevered additions, which extend the existing structure in a seaward direction, shall comply with the minimum 25-foot and 100-year setback.

(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~~ Notice and Acknowledgement 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, and the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, accepting risk, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties.~~.~~

(g) ~~Approval~~Acceptance of drainage and landscape plans for the site by the County Geologist. Drainage plans shall be prepared by a civil engineer, and reviewed by both the project engineering geologist and geotechnical engineer when part of the design team.

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

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

(j) Coastal Development Permits (CDPs) authorizing accessory structures shall include a requirement that the permittee (and all successors in interest) shall apply for a CDP to remove the accessory structure(s) if it is determined by a ~~G~~geotechnical ~~E~~engineer or

engineering geologist that the accessory structure is in danger from erosion, landslide, or other form of bluff collapse.

(k) Projects (including landscaping and patios) which would unfavorably alter drainage patterns such that a change in drainage patterns would significantly increase or concentrate drainage over the bluff edge or increase infiltration into the bluff are not allowed in the applicable minimum bluff setback.

(l) Only grading for minor leveling of a scale typically accomplished by hand, which is necessary to create beneficial drainage patterns or install an allowed structure (such as decks or detached patios which do not require a building permit and do not unfavorable alter drainage patterns) are allowed within the applicable minimum bluff setback.

(2) Exemption.

(a) Any project (except those defined in Sections 16.10.070(G)(1)(k) 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 (~~H~~G)(1)(a-l) 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. "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 shall only be allowed 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 developed lots, or to protect public ~~works~~roads and infrastructure, public beaches, and coastal dependent uses.

(b) ~~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 (~~H~~G)(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) Application for shoreline and coastal bluff protective structures shall include thorough analysis by a civil engineer or engineering geologist of all reasonable alternatives to such structures, including but not limited to 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.

(d) Shoreline and coastal bluff protection structures shall be placed as close as possible to the development or structure requiring protection.

(e) Shoreline and coastal bluff protection structures shall not reduce or restrict public beach access, adversely affect shoreline processes and sand supply, adversely impact recreational resources, increase erosion or flooding on adjacent property, create a significant visual intrusion, or cause harmful impacts to wildlife or fish habitat, archaeologic or paleontologic resources. Shoreline and coastal bluff protection structures shall minimize visual impact by employing materials that blend with the color of natural materials in the area.

(f) All protection structures shall meet approved engineering standards as determined through review of the technical report(s) and environmental review. Coastal studies for new, modified, reconstructed and replacement protection structures shall include the following minimum information:

(i) Detailed technical studies to accurately define oceanographic conditions affecting the site, including appropriate projections of sea level rise, and an analysis of the historic, current, and future pattern (for at least 100 years) of coastal erosion at the location of the new, modified, reconstructed or replacement protection structure;

(ii) An evaluation of how adjacent seawalls affect the site; and,

(iii) An estimate of the site stability and erosion characteristics.

(g) All shoreline protection structures shall include a permanent, County approved, monitoring and maintenance program. 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 describing any recommended maintenance work. Maintenance programs shall be recorded on the property title/deed, 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.

(h) Applications for shoreline or coastal bluff 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.

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

(4) Alteration of Damaged Structures. Reconstruction, repair, rebuilding, replacement, alteration, improvement, or addition to damaged shoreline or coastal bluff protection structures, or the structures they protect, located on or at the top of a coastal bluff ~~shall proceed according to the following chart:~~ that meets the definition of development/development activities in this Chapter must be found consistent with all applicable requirements of this Chapter.

~~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)~~				
~~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 all regulations, including setback~~	~~To repair or replace in kind, meet all regulations except setback. Otherwise~~	~~Exempt from regulations if repaired/replaced in~~	~~Exempt from regulations if repaired/replaced in kind. Otherwise meet all~~

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)				
meet setback but could by relocating.	for existing structure.	meet all regulations, including prescribed minimum setback.	kind. Otherwise meet all regulations, including prescribed minimum setback.	regulations, including prescribed minimum setback.
Existing structure does not meet setback and cannot meet setback by relocating.	If hazard can be mitigated to provide stability for a period of 100 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.	May repair or replace in kind. To repair or replace in kind, meet all regulations except 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.	May repair or replace in kind. 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.	May repair or replace in kind. To repair or replace in kind, meet all regulations except 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.

(5) 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 Chapter 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.~~

(6) 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.

(7) 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 (~~H~~G)(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 protection structures except on lots in the Urban and Rural Services Line that have legally established protection structures, or where both adjacent parcels are already similarly protected;

(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 100-year stability (whichever is greater) setback;

(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 and acknowledgement 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~~.~~, the mitigations (if any) that were required to reduce the geologic hazards to an acceptable level, acceptance of risk by the property owners and successors in interest, and exempting the County from liability for any personal or property damage caused by geologic or other hazards on such properties, and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit must be consistent with this Chapter.

(8) 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. [Ord. 4836 § 121, 2006; Ord. 4518-C § 2, 1999; Ord. 4346 § 66, 1994; Ord. 4071 §§ 1—4, 1990; Ord. 3997 §§ 3—8, 1989; Ord. 3892 § 3, 1988; Ord. 3808 § 3, 1986; Ord. 3635 § 2, 1985; Ord. 3598 § 1, 1984; Ord. 3437 §§ 2, 3, 4, 1983; Ord. 3340 § 1, 1982; Ord. 2631, 1978; Ord. 2580, 1978; Ord. 2258, 1976; Ord. 2185, 1975; Ord. 2088, 1975].

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.~~

(E) Coastal Hazards. The portions of a property subject to coastal bluff erosion and inundation, as determined by a geologic hazards assessment, geologic report, or adopted flood insurance rate map (FIRM), shall be excluded from density calculations. [Ord. 5019 § 1, 2008; Ord. 4518-C § 2, 1999; Ord. 4426 § 3, 1996; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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 ~~to an acceptable level of risk,~~ 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 by the Planning Director or the decision making body. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

16.10.100 Exceptions.

(A) Request for Exception. A request for an exception to the provisions of this chapter 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.

(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 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(36)~~16.13.160(40), exists; and

(2) The project is necessary to mitigate a threat to public health, safety, or welfare; and

(3) The request is for the smallest amount of variance from the provisions of this chapter as possible; and

(4) Adequate measures will be taken to ensure consistency with the purposes of this chapter and the County General Plan.

~~(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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [Ord. 4518-C § 2, 1999; Ord. 4392A § 1, 1996; Ord. 4336 § 1, 1994; Ord. 3808 § 4, 1986].

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 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)~~. [Ord. 4518-C § 2, 1999; Ord. 4392A § 2, 1996; Ord. 4336 § 2, 1994; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982; Ord. 2281, 1976; Ord. 2088, 1975].

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. [Ord. 4518-C § 2, 1999; Ord. 4392A § 3, 1996; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

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. [Ord. 4518-C § 2, 1999; Ord. 3598 § 1, 1984; Ord. 3340 § 1, 1982].

Exhibit K

County Code Chapter 16.22
Erosion Control (strikethrough)

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Chapter 16.22
EROSION CONTROL

Sections:

16.22.010 Purpose.

The purpose of this chapter is to eliminate and prevent conditions of accelerated erosion that have led to, or could lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil and vegetation cover, disruption of water supply, and increased danger from flooding, and to implement Local Coastal Program land use policies. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.020 Scope.

This chapter requires control of all existing and potential conditions of accelerated (human-induced) erosion; sets forth required provisions for project planning, preparation of erosion control plans, runoff control, land

clearing, and winter operations; and establishes procedures for administering those provisions. This chapter shall apply to both private and public activities including those of the County and other such governmental agencies as are not exempted by State or Federal law. [Ord. 4166 § 2, 1991; Ord. 4027 § 4, 1989; Ord. 3600 § 1, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.025 Amendment.

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 a chapter revision constitutes an amendment to the Local Coastal Program such revision shall be processed pursuant to the hearing and notification provisions of Chapter 13.03 SCCC and shall be subject to approval by the California Coastal Commission. [Ord. 3337 § 1, 1982].

16.22.030 Definitions.

“Accelerated erosion” means erosion caused by a human-induced alteration of the vegetation, land surface, topography, or runoff pattern. Evidence of accelerated erosion is often indicated by exposed soils, gullies, rills, sediment deposits, or slope failures caused by human activities.

“Access envelope” means an area delineated on the site plan to which all clearing and land disturbance for construction of access must be confined.

“Agricultural grading” means grading on land designated for exclusive agricultural use as specified under SCCC 16.50.040.

“Approved erosion control specialist” means a person who has met certain minimum qualifications established by the Planning Director which demonstrate his/her capability to prepare small-scale erosion control plans.

“Building envelope” means an area delineated on the development plans to which all clearing and land disturbance for construction must be confined.

“Development permit” as used in this Chapter means a permit issued by the County for new land use activities including but not limited to: building, grading, land clearing, subdivisions, minor land divisions, and residential, commercial, industrial and agricultural development.

“Drainage course” means a natural or manmade channel which conveys runoff either year-round or intermittently.

“Earth material” means rock, natural soil, or combination thereof.

“Erosion” means the wearing away of the ground surface as a result of the movement of wind or water.

“Erosion hazard” means the susceptibility of a site to erode, based on condition of slope, rock type, soil, and other site factors. High erosion hazard areas include areas of high and very high erosion hazard shown on maps prepared by the Planning Department. Hazard may be determined based on a site-specific investigation.

“Grading” means excavating, filling, leveling, or smoothing, or combination thereof.

“Land clearing” means the removal of vegetation down to duff or bare soil, by any method.

“Land clearing permit ~~approval~~” means ~~an~~a permit ~~n approval~~ granted by the Planning Director which authorizes the permittee to carry out land clearing.

“Land disturbance” means clearing, excavating, grading, or other manipulation of the terrain.

“Major grading” means grading in excess of 100 cubic yards.

“Major development proposals” means new commercial, industrial, or professional developments; or new residential developments of more than four units.

“Minor development proposals” means building permits, grading permits for less than 2,000 cubic yards, subdivisions of four or less lots, and any other project not identified as a major development proposal in SCCC 16.22.060(D).

“Minor grading” means grading less than 100 cubic yards.

“New road or driveway” means any newly constructed road or driveway or any improvement to an existing road bed which requires more than 100 cubic yards grading in any 500-foot segment in order to meet the design standards in SCCC 16.20.180. Any road or bridge constructed pursuant to a timber harvest permit issued by the State of California shall be considered a new road for the purposes of subsequent development and shall be subject to all current design standards and applicable policies.

“Onsite detention” means temporary storage of runoff on the site.

“Onsite retention” means permanent holding of runoff on the site through percolation to the ground.

“Owner” means the person or persons shown in the County Recorder’s Office as owner of the property.

“Permittee” means any person undertaking development activities upon a site pursuant to a permit granted by the County.

“Person” means any person, firm, association, corporation, organization, partnership, business, trust company, public agency, school district, the State of California and its political subdivisions or instrumentalities.

“Planning Director” means the Director of the Planning Department or ~~his~~ authorized designee charged with the administration and enforcement of this chapter. The Public Works Director or authorized designee may administer the provisions of the chapter for subdivisions.

“Responsible person” means any person who creates a condition which may lead to accelerated erosion. If a specific person cannot be identified, the owner of the land where such condition exists shall be considered the responsible person.

“Road” or “roadway” means an open way for vehicular traffic.

“Runoff” means the movement of water over the ground surface.

“Sediment” means eroded earth material that is carried by runoff and/or deposited in a stream, drainage course, or other area.

“Sensitive habitat” includes areas defined as sensitive habitats in General Plan and Local Coastal Program Land Use Plan Section 5.1, specifically 5.1.2 and 5.1.3.

“Site” means a parcel of land or contiguous parcels where land alterations, including grading, clearing, or construction, are performed or proposed.

“Soil” means the unconsolidated mineral and organic material on the immediate surface of the earth.

“Stream” means any watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United States Geological Survey map most recently published, or as indicated in the development permit when it has been field-determined that a watercourse either:

(1) Supports fish at any time of the year; or

(2) Has a significant water flow 30 days after the last significant storm; or

(3) Has a well-defined channel, free of soil and debris.

"Ten-year storm" means a storm of an intensity that would be exceeded on the average only once every 10 years. The intensity for the site shall be determined according to the County Public Works Design Criteria Manual. The duration of the storm used in runoff calculation shall be equivalent to the concentration time for the area which drains through the project. [Ord. 4496-C §§ 84, 85, 1998; Ord. 4426 § 4, 1996; Ord. 4346 § 68, 1994; Ord. 4131 § 1, 1991; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.040 General provisions.

No person shall cause or allow the continued existence of a condition on any site that is causing or is likely to cause accelerated erosion as determined by the Planning Director. Such a condition shall be controlled and/or prevented by the responsible person and the property owner by using appropriate measures outlined in subsequent sections of this chapter. Additional measures shall be applied if necessary by the responsible person and the property owner. Specific additional measures may be required by the Planning Director. Property owners will be given a reasonable amount of time, as determined by the Planning Director, to control existing problems depending on the severity of the problem, and the extent of necessary control measures. Where feasible, erosion problems shall be controlled no later than the beginning of the next rainy season (October 15th). [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.050 Project design.

The density and design of new development shall be planned to be consistent with the characteristics and constraints of the site:

(A) Structures on slopes that would normally require major grading shall utilize pole, step, or other foundations that do not require major grading.

(B) New lots shall not be created which will:

(1) Require new access roads and driveways to cross slopes exceeding 30 percent; or

(2) Require cuts and fills greater than 10 feet in height for distances greater than 50 feet or 10 percent of the new roadway length, whichever is greater.

(C) For any project, access roads and driveways should not cross slopes greater than 30 percent and cuts and fills should not exceed 10 feet. ~~Variances~~ Exceptions to this rule can be granted if a route across steep slopes will result in less environmental damage than all alternative routes, or if no other alternative exists.

(D) Building and access envelopes or nonbuildable areas may be required to be delineated on the development plans so as to keep disturbance out of particularly erodible areas. Envelopes shall be required in areas of high erosion hazard.

(E) Streams or drainage courses shall not be obstructed or disturbed except for approved road crossings, unless disturbance of a drainage course will improve overall site design and be consistent with the purpose of this chapter.

(F) If the project is for creation of or access to a building site, land disturbance shall not take place until a building permit has been issued. If a permit cannot be issued until a determination of adequate water source and sewage disposal or other required site investigation is made, land disturbance shall be limited to the extent necessary to allow such an investigation. This provision shall not apply to road construction or other grading activities which are specifically required as a condition of a minor land division or other permit.

(G) Erosion control measures specified in, or pursuant to, this chapter, shall be in place and maintained at all times between October 15th and April 15th. [Ord. 3600 § 2, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.060 Erosion control plan.

(A) Prior to issuance of a building permit, development permit or land division, an erosion control plan indicating proposed methods for the control of runoff, erosion, and sediment movement shall be submitted and approved. Erosion control plans may also be required by the Planning Director for other types of applications where erosion can reasonably be expected to occur. The erosion control plan may be incorporated into other required plans, provided it is identified as such. Erosion control plans shall include, as a minimum, the measures required under SCCC 16.22.070, 16.22.080, 16.22.090, and 16.22.100. Additional measures or modification of proposed measures may be required by the Planning Director prior to project approval. No grading or clearing may take place on the site prior to approval of an erosion control plan for that activity. Final certification of project completion may be delayed pending proper installation of measures identified in the approved erosion control plan.

(B) Applications for land clearing permit approvals granted pursuant to this chapter shall be made according to Chapter 18.10 SCCC, and processed as an administrative minor permit (Level III~~,~~). ~~and shall include two sets of plans for each application~~. Particular plan components may be required by the Planning Director. Plans ~~shall be drawn to scale upon substantial material, minimum size 18 inches by 24 inches, and~~ shall be of sufficient clarity to indicate the nature and the extent of the work proposed and show in detail that it will conform to the provisions of this chapter and all relevant laws and regulations. ~~The minimum size for plans for land clearing~~

~~permits shall be eight and one-half inches by 11 inches.~~ The plans shall include the following information in writing and/or diagrams:

(1) General location of the proposed site.

(2) Property lines and contours of the site including finish contours to be achieved by grading, details of terrain, and area drainage; proposed construction, proposed drainage channels, and other runoff control measures.

(3) Measures for runoff control and erosion control to be constructed with, or as a part of, the proposed work. All measures required under this chapter shall be shown. Function of erosion control measures shall be consistent with the provisions of this chapter.

(4) Delineation of areas to be cleared during development activities.

(5) Revegetation proposal for all surfaces exposed or expected to be exposed during development activities, including cut and fill slopes.

(6) Name and address of the owner(s).

(7) Assessor's parcel number(s) of the property on which the work is to be done.

(8) North arrow, scale, and name and location of nearest public road intersection.

(9) Name, address, and phone number of person who prepared the plan.

(C) For minor development proposals, the erosion control plan is not required to be prepared by a registered professional (as listed in subsection (D) of this section).

(D) For major development proposals, the erosion control plans shall be prepared by a registered professional authorized to do such work under State law. For these major projects, detailed plans of all surface and subsurface drainage devices, runoff calculations, and other calculations demonstrating adequacy of drainage structures shall be included. Inspection by the person preparing the plan and certification of proper installation of control measures may be required by the Planning Director. Major proposals include:

(1) Subdivisions of more than four lots.

(2) Grading in excess of 2,000 cubic yards.

(3) Commercial or industrial development permits for new structures; or residential development permit for more than four units.

(4) Other projects of a similar nature determined by the Planning Director to cause major land disturbance.

(E) Applications for activities where the Planning Director or designee recognizes that no land disturbance will take place shall not be required to include an erosion control plan. Such activities may include, but are not limited to:

(1) Change of use permits where there would be no expansion of land disturbing activities.

(2) Construction within an existing structure. [Ord. 4496-C § 86, 1998; Ord. 3439 § 1, 1982; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.070 Runoff control.

Runoff from activities subject to a building permit, parcel map, subdivision ~~approval~~ or development permit shall be properly controlled to prevent erosion. The following measures shall be used for runoff control, and shall be adequate to control runoff from a 10-year storm:

(A) On soils having high permeability (more than two inches/hour), all runoff in excess of predevelopment levels shall be retained on the site. This may be accomplished through the use of infiltration basins, percolation pits or trenches, or other suitable means. This requirement may be waived where the Planning Director determines that high groundwater, slope stability problems, etc., would inhibit or be aggravated by onsite retention, or where retention will provide no benefits for groundwater recharge or erosion control.

(B) On projects where onsite percolation is not feasible, all runoff should be detained or dispersed over nonerodible vegetated surfaces so that the runoff rate does not exceed the predevelopment level. Onsite detention may be required by the Planning Director where excessive runoff would contribute to downstream erosion or flooding. Any policies and regulations for any drainage zones where the project is located will also apply.

(C) Any concentrated runoff which cannot be effectively dispersed without causing erosion shall be carried in nonerodible channels or conduits to the nearest drainage course designated for such purpose by the Planning Director or to on-site percolation devices. Where water will be discharged to natural ground or channels, appropriate energy dissipators shall be installed to prevent erosion at the point of discharge.

(D) Runoff from disturbed areas shall be detained or filtered by berms, vegetated filter strips, catch basins, or other means as necessary to prevent the escape of sediment from the disturbed area.

(E) No earth or organic material shall be deposited or placed where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water. [Ord. 4281 § 12, 1993; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.080 Land clearing permit approval.

Land clearing shall be kept to a minimum. Vegetation removal shall be limited to that amount necessary for building, access, and construction as shown on the approved erosion control plan. The following provisions shall apply:

(A) When no land development permit has been issued, the following extents of land clearing require approval of a land clearing permit and an erosion-control plan according to the application processing and approval procedures in Chapter 18.10 SCCC~~,~~ for administrative minor permits, (Level III~~:~~):

(1) Any amount of clearing in a sensitive habitat, as defined in this chapter.

(2) One-~~quater~~quarter acre or more of clearing in all areas not defined as sensitive habitat ~~included in subsection (A)(1) of this section~~.

(B) When a land development permit has been issued, land clearing may be done according to the approved development plan.

(1) For land clearing in the Coastal Zone which will be more than that shown on the approved erosion-control plan, a new land-clearing permit approval is required if the land is located in a least-disturbed watershed, a water supply watershed, or an area of high erosion hazard.

(2) For land clearing in any area which will include more than one-quarter acre in excess of that shown on the approved plan, a new land-clearing permit approval is required.

(C) ~~Approval~~Approvals of land clearing permit requests shall be based upon review and placing conditions on plans as needed to ensure that the proposed activities incorporate or meet the following measures ~~conditions~~. All disturbed surfaces shall be prepared and maintained to control erosion and to establish native or naturalized vegetative growth compatible with the area. This control shall consist of:

(1) Effective temporary planting such as rye grass, barley, or some other fast-germinating seed, and mulching with straw and/or other slope stabilization material;

(2) Permanent planting of native or naturalized drought resistant species of shrubs, trees, etc., pursuant to the County's landscape criteria, when the project is completed;

(3) Mulching, fertilizing, watering or other methods may be required to establish new vegetation. On slopes less than 20 percent, topsoil shall be stockpiled and reapplied.

The protection required by this section shall be installed prior to calling for final approval of the project and at all times between October 15th and April 15th. Such protection shall be maintained for at least one winter until permanent protection is established.

(D) No land clearing shall take place prior to approval of the erosion control plan. Vegetation removal between October 15th and April 15th shall not precede subsequent permitted grading or construction activities by more than 15 days. During this period, erosion and sediment control measures shall be in place.

(E) Land clearing of more than one-quarter acre that is not a part of a permitted activity shall not take place on slopes greater than 30 percent. [Ord. 4496-C § 87, 1998; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.090 Winter operations.

(A) No land clearing operations greater than one-quarter acre per year per site or grading operations greater than 100 cubic yards may take place between October 15th and April 15th, unless authorized by the Planning Director and found to be consistent with the purposes of this chapter. When construction will be delayed due to the limitation on winter operations, the date for expiration of the permit shall be extended by that amount of time that work is delayed by this chapter.

(B) When winter operations are permitted, the following measures shall be taken to prevent accelerated erosion. Additional measures may be required:

(1) Between October 15th and April 15th, disturbed surfaces not involved in the immediate operations shall be protected by mulching and/or other effective means of soil protection as required by the Planning Director.

(2) All roads and driveways shall have drainage facilities sufficient to prevent erosion on or adjacent to the roadway or on downhill properties. Erosion-proof surfacing may be required by the Planning Director in areas of high erosion hazard.

(3) Runoff from a site shall be detained or filtered by berms, vegetated filter strips, and/or catch basins to prevent the escape of sediment from the site. These drainage controls shall be maintained by the permittee and/or property owner as necessary to achieve their purpose throughout the life of the project.

(4) Erosion control measures shall be in place at the end of each day's work.

(5) The Planning Director shall stop operations during periods of inclement weather if he determines that erosion problems are not being controlled adequately. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.100 Overall responsibility.

It shall be the responsibility of the owner and the permittee to ensure that erosion does not occur from any activity during or after project construction. Additional measures, beyond those specified, may be required by the Planning Director as deemed necessary to control accelerated erosion. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.110 Exemptions.

Conditions of accelerated erosion existing prior to adoption of this chapter are not exempted. The intent of this section is not to invalidate existing discretionary permits, but rather to prevent or mitigate accelerated erosion. The following work is exempted from all provisions of this chapter except SCCC 16.22.040 and 16.22.160 through 16.22.190:

(A) Agricultural Activities. Permitted agricultural grading, routine agricultural activities such as plowing, harrowing, disking, ridging, listing, land planning, and similar operations to prepare a field for a crop, including routine clearing to maintain existing rangeland;

(B) Timber Harvesting. Work done pursuant to a valid timber harvest permit;

(C) Quarrying. Quarrying done pursuant to a valid quarry permit;

(D) Septic Systems and Wells. Work done pursuant to a valid permit for septic system installation and repair or well drilling; however, SCCC 16.22.080(B) and 16.22.090(B) shall apply, and sediment from these activities shall not be allowed to enter any stream or body of water;

(E) Resource Management. Clearing, fuel management, reforestation, erosion control, or other resource management programs carried out under the auspices of a government agency which include appropriate erosion control measures. Agencies shall notify the Planning Director of such projects. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.120 ~~Variances~~ Exceptions.

(A) A request for ~~a~~an exception ~~variance~~ from the provisions of this chapter, the permit conditions, or the plan specifications may be considered according to the application processing and approval procedures in Chapter 18.10 SCCC ~~at the level specified in SCCC 16.22.060(B).~~for administrative minor permits, (Level III):

(B) A request for ~~a~~an exception ~~variance~~ must state in writing the provision from which it is to be varied, the proposed substitute provisions, when it would apply, and its advantages. In granting the exception ~~variance~~, the Planning Director shall find that ~~be guided by the following criteria~~:

(1) That there are special circumstances or conditions affecting the property.

(2) That the exception ~~variance~~ is necessary for the proper design and/or function of a reasonable project for the property.

(3) That adequate measures will be taken to ensure consistency with the purpose of this chapter.

(C) As contemplated in this section, ~~a~~an exception ~~variance~~ shall be granted for alternative methods of construction for projects which could be constructed under the basic standards established in this chapter, but which, if ~~a~~an exception ~~variance~~ is granted, can be better and/or more economically designed and constructed than if ~~a~~an exception ~~variance~~ were not given. ~~A~~An exception ~~variance~~ shall not be granted if the result ~~part~~ of ~~a~~an exception ~~variance~~ would have the effect of allowing the construction of a project which would otherwise without the exception ~~variance~~ not be possible under the provisions of the County Code. [Ord. 3600 § 3, 1984; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.130 Fees.

Fees for checking, inspection, violations, variance requests, and for land-clearing permits shall be set by resolution of the Board of Supervisors. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.140 Inspection and compliance.

The Planning Director shall conduct inspections to ensure compliance with this chapter.

(A) Inspection. The following inspections may be performed by the Planning Director:

(1) Pre-Site Inspection. To determine the potential for erosion resulting from the proposed project.

(2) Operation Progress Inspections. To determine ongoing compliance.

(3) Final Inspection. To determine compliance with approved plans and specifications.

(B) Notification. The permittee shall notify the Planning Director at least 24 hours prior to start of the authorized work, and also nine business hours prior to any inspection requested by the permittee or permittee's authorized agent. [Ord. 4392A § 6, 1996; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.150 Applicable laws and regulations.

Any person doing work in conformance with this chapter must also abide by all other applicable local, State, and Federal laws and regulations. Where there is a conflict with other pre-existing County regulations, this chapter shall take priority. [Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.160 Violations.

(A) It shall be unlawful for any person to refuse or fail to correct any condition causing or likely to cause accelerated erosion as required by a notice of violation issued under the provisions of subsection (C) of this section.

(B) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any land clearing as defined in SCCC 16.22.030 unless either a development permit has been obtained and is in effect which authorizes such land clearing; or the land clearing is exempt from the requirement for a permit under the provisions of SCCC 16.22.080(A).

(C) It shall be unlawful for any person to exercise a development permit which authorizes land clearing without complying with all of the conditions of such permit.

(D) It shall be unlawful for any person to knowingly do, cause, permit, abet or furnish equipment or labor for any work in violation of a stop work notice from and after the date it is posted on the site until the stop work notice is authorized to be removed by the Planning Director.

(E) It shall be unlawful for any person to cause or allow the existence of a condition on any site that is causing or is likely to cause accelerated erosion as determined by the Planning Director.

[Ord. 3451-A § 12, 1983; Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

16.22.161 Right of entry.

Repealed by Ord. 4392A. [Ord. 3451-A § 13, 1983].

16.22.162 Stop notices.

Repealed by Ord. 4392A. [Ord. 3451-A § 14, 1983].

16.22.163 Notification of violations.

Repealed by Ord. 4392A. [Ord. 3451-A § 15, 1983].

16.22.164 Nuisance abatement of violation.

Repealed by Ord. 4392A. [Ord. 3451-A § 16, 1983].

16.22.165 Recording notice of violation.

Repealed by Ord. 4392A. [Ord. 3451-A § 17, 1983].

16.22.170 Penalties.

Repealed by Ord. 4392A. [Ord. 3337 § 1, 1982].

16.22.180 Enforcement.

Repealed by Ords. 4392A. [Ord. 3337 § 1, 1982].

16.22.190 Appeals.

All appeals of actions taken pursuant to the provisions of this chapter shall be made in conformance to the procedures of Chapter 18.10 SCCC. [Ord. 3439 § 1, 1983; Ord. 3337 § 1, 1982; Ord. 2982, 1980].

Exhibit L

County Code Chapter 16.20
Grading Regulations (strikethrough)

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Chapter 16.20
GRADING REGULATIONS

Sections:

16.20.010 Purpose.

The purpose of this chapter is to safeguard health, safety, and the public welfare; to minimize erosion and the extent of grading; to protect fish and wildlife; to protect the watersheds; to ensure the natural appearance of grading projects; and to otherwise protect the natural environment of Santa Cruz County. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.020 Scope.

This chapter sets forth rules and regulations to control all grading, including excavations, earthwork, road construction, dredging, diking, fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspections. This chapter shall apply to both private and public activities including those of the County and other such governmental agencies as are not exempted by State or Federal law. [Ord. 4166 § 1, 1991; Ord. 4027 § 3, 1989; Ord. 3599 § 1, 1984; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.025 Amendment.

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 13.03SCCC, and shall be subject to approval by the California Coastal Commission. [Ord. 3321 § 1, 1982].

16.20.030 Definitions.

All definitions shall be as defined in the General Plan or Local Coastal Program Land Use Plan glossaries, and as follows:

~~"~~Agricultural grading" means any grading which takes place on land designated on the County's agricultural resource maps for exclusive agricultural use as specified in SCCC 16.50.040; provided, however, that agricultural grading does not include any grading on such lands connected with the construction of access roads or building sites; except greenhouse sites. Agricultural grading also does not include the movement of earth defined as agricultural work in SCCC 16.20.050(I).

"Bedrock" means the in-place solid, undisturbed material either at the ground surface or beneath superficial deposits of gravel, sand or soil.

"Bench" means a relatively level step excavated into earth material.

"Civil engineer" means a professional engineer registered in California to practice civil engineering.

"Clearing" means the removal of vegetation down to bare soil, whether by hand, machine or any other method.

"Compaction" means the densification of earthen solids.

"Contractor" means any person licensed in the State of California to do grading as defined by State law.

"Diking" means construction of an earthen dam to control or confine water.

"Drainage course" means a natural or manmade channel which conveys storm runoff either year-round or intermittently.

"Dredging" means scooping or digging of earth material from the bed of a body of water.

"Driveway" means any private road leading from the street to two or fewer habitable structures or parcels. (See "roadway.")

"Earth material" means rock, natural soil, sand or combination thereof.

~~"Engineering geologist" means a professional geologist registered in the State of California to practice engineering geology.~~

"Erosion" means the wearing away of the ground surface as a result of movement of wind, water or ice.

"Excavation" means the mechanical removal of earth material, or a cavity formed by cutting, digging or scooping.

"Existing grade" means the grade prior to grading.

"Fill" means the deposition of earth or other material by artificial means for any purpose, for any length of time, including the stockpiling of material, or the conditions resulting therefrom.

"Finish grade" means the final grade of the site which conforms to the approved plan.

~~G~~rade" means the vertical location of the ground surface, or the degree of rise or descent of a slope.

~~G~~rading" means excavating, or filling, dredging, diking, prospecting, exploratory mining operation or combination thereof.

~~K~~ey" means a designed compacted fill placed in a trench excavated in undisturbed earth material or rock beneath the toe of a proposed fill slope for the purpose of developing a shearing resistance (see Figure 1).

Figure 1

~~L~~and disturbance" means clearing, excavating, grading or other manipulation of the terrain.

~~L~~ittoral cell" means a continuous section of shoreline within which sand moves in a prevailing direction in response to seasonal current.

~~P~~ermittee" means the property owner, or any contractor or other person undertaking grading upon the property of the property owner, pursuant to a permit granted according to the provisions of this chapter.

~~P~~lanning Director" means the Director of the Planning Department or ~~a~~ designee~~ated employee~~.

~~P~~rofessional geologist" means a geologist who is licensed by the State of California to practice geology

~~R~~iparian corridor" means any of the following:

(1) Lands within a stream channel, including the stream and the area between the mean rainy season (bankfull) flowlines;

(2) Lands extending 50 feet (measured horizontally) out from each side of a perennial stream. Distance shall be measured from the mean rainy season (bankfull) flowline;

(3) Lands extending 30 feet (measured horizontally) out from each side of an intermittent stream. Distance shall be measured from the mean rainy season (bankfull) flowline;

(4) Lands extending 100 feet (measured horizontally) from the high water mark of a lake, wetland, estuary, lagoon or natural body of standing water;

(5) Lands containing a riparian woodland;

(6) Lands within an arroyo located within the urban services line, or the rural services line.

~~R~~oad gradient (percent)" means a vertical rise multiplied by 100 and divided by horizontal run.

~~R~~oad" or ~~r~~oadway" means an open way for vehicular traffic serving more than two habitable structures or parcels. (See ~~d~~riveway.")

~~S~~ecurity" means a cash deposit, time certificate of deposit or equivalent security acceptable to the County.

~~S~~ite" means a parcel of land or contiguous combination thereof, where grading is performed or proposed.

~~S~~lope" means an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance. (See Table A and Figure 2.)

Table A

Ratio		Percent	Degrees
	1:1 =	100% =	45
	2:1 =	50% =	22
	3:1 =	33% =	15
	4:1 =	25% =	11
	5:1 =	20% =	9

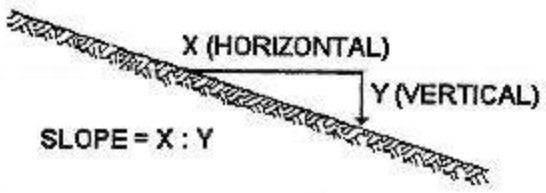


Figure 2

~~S~~oil" means naturally occurring superficial deposits of earth material overlying bedrock.

~~S~~oil (geotechnical) engineer" means a Professional ~~c~~Civil ~~e~~Engineer, ~~registered~~licensed in the State of California, experienced and knowledgeable in the practice of soil and foundation engineering.

~~S~~tream" means any watercourse as designated by a solid line or dash and three dots symbol shown on the largest scale of the United States Geological Survey map most recently published, or as indicated in the grading permit when it has been field determined that a watercourse either:

(1) Supports fish at any time of the year; or

(2) Has a significant water flow 30 days after the last significant storm; or

(3) Has a channel, free of soil and debris.

~~T~~errace" means a relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

~~W~~aterbreak" means a ditch, dike, dip or combination thereof, constructed to effectively divert water as an aid to erosion control.

~~W~~inter season" means October 15th through April 15th. [Ord. 4346 § 67, 1994; Ord. 3599 § 2, 1984; Ord. 3321 § 1, 1982; Ord. 2972, 1980; Ord. 2500, 1977].

16.20.040 Approval required.

Except as exempted by SCCC 16.20.050, no person shall do, cause, permit, aid, abet, suffer or furnish equipment or labor for any grading until a grading ~~approval~~permit has been obtained for the project. A separate ~~approval~~permit shall be required for each site and shall be obtained as follows:

(A) Planning Commission. All permit approvals for grading in excess of 8,000 cubic yards, or for which an environmental impact report was prepared, or for grading in excess of 1,000 cubic yards which is visible from a scenic corridor roadway, as designated in the Local Coastal Program Land Use Plan, shall be processed according to Chapter 18.10 SCCC as an administrative permit with notice, Level VI.

(B) Planning Director. All other grading permits shall be processed according to Chapter 18.10 SCCC as a minor administrative permit, Level III.

(C) Subdivisions. The Public Works Director is hereby authorized and directed to enforce the provisions of this chapter for grading done within parcel map subdivisions for which improvement plans have been signed by the Public Works Director or within subdivisions for which a final map has been recorded or for property on which a tentative subdivision map has been approved and grading is permitted prior to recording of a final map. Grading permits are not issued by the Planning Director for subdivision work administered by the Director of Public Works. [Ord. 3636 § 1, 1985; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.050 Exemptions.

The following work is exempt from the provisions of this chapter; however, it remains subject to the riparian corridor protection ordinance (Chapter 16.30 SCCC), the County environmental review regulations (Chapter16.01 SCCC), the erosion control ordinance (Chapter 16.22 SCCC), the geological hazard ordinance (Chapter 16.10 SCCC), the sensitive habitat protection ordinance (Chapter 16.32 SCCC), and the County Native American cultural sites ordinance (Chapter 16.40 SCCC). The following work may also be subject to other requirements imposed in County and State law.

(A) Excavations. An excavation which does not exceed 100 cubic yards and which does not create a cut slope greater than five feet in depth.

(B) Fills. A fill containing earth material only which is less than two feet in depth, is placed on natural terrain which has a slope flatter than five horizontal to one vertical, does not exceed 100 cubic yards on any one site, does not alter or obstruct a drainage course, and will not be used for structural support.

(C) Basements, Footings. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill as provided

under subsection (B) of this section made with the material from such excavation, nor exempt any excavation having an unsupported height greater than five feet after the completion of such structure.

(D) Cemeteries. Cemetery graves.

(E) Refuse Disposal. Refuse disposal sites which are permitted and actually being controlled pursuant to other County regulations, and excavations for individual and community sewage disposal systems, made pursuant to permit.

(F) Wells and Utilities. Excavations for wells or utilities.

(G) Mining and Quarrying. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay materials, pursuant to a County permit.

(H) Soil Testing. Exploratory excavations under the direction of a soils engineer or ~~engineering~~professional geologist where such excavation is to be returned to the original condition under the direction of such engineer or geologist within 45 days after the start of work.

(I) Agricultural Work. Routine plowing, harrowing, disking, ridging, listing, land planing, and similar operations necessary to prepare a field for a crop for continued agricultural use. (All other agricultural grading shall be subject to the procedures of SCCC 16.20.195.)

(J) Timber Harvesting. Work done pursuant to a valid timber harvesting permit.

(K) County Public Works. Routine maintenance and other work undertaken by the County Department of Public Works that does not impact an environmental resource of hazardous or critical concern where designated, mapped and officially adopted pursuant to law by Federal or State agencies, or by the Santa Cruz County Board of Supervisors, or where identified through field or technical investigation. [Ord. 4496-C § 83, 1998; Ord. 3599 § 3, 1984; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.055 Special exemption for prevention or mitigation of Pajaro River/Salsipuedes Creek flooding.

(A) In areas outside of the Coastal Zone, the operation, repair and maintenance of the Pajaro River and Salsipuedes Creek levees and the areas within the levees, for the purpose of restoring flood conveyance capacity, including bench excavation, sediment removal, and similar projects shall be exempt from the provisions of this chapter if all of the following conditions are met:

(1) The work is conducted by or under the direction of the Department of Public Works;

(2) The work is in accordance with a streambed alteration agreement approved by the California Department of Fish and Game, to the extent that such an agreement is required; and

(3) The project has been subjected to environmental review with the County of Santa Cruz serving as the lead agency. [Ord. 4790 § 1, 2005; Ord. 4374 § 1, 1995].

16.20.060 Application.

Applications for ~~approvals~~grading permits granted pursuant to this chapter shall be made in accordance with the applicable requirements of Chapter 18.10 SCCC and shall include the following:

(A) General. An application for a grading ~~approval~~permit shall be submitted by the owner(s) of the property or agent when authorized in writing. The application shall be signed by the owner(s) of each site or their designated representative, as defined under SCCC 16.20.030. A civil engineer or other licensed professional authorized by State law shall prepare and sign the plans and specifications if grading will be in excess of 2,000 cubic yards. Special design requirements for dredging and diking shall be determined by the Planning Director.

(B) The application shall be accompanied by all fees required by SCCC 16.20.120.

(C) Plans and Specifications. Two sets of plans shall be required by the Planning Director. Plans shall be drawn to scale upon substantial material, minimum size 18 inches by 24 inches, and shall be of sufficient clarity to indicate the nature and the extent of the work proposed and show in detail that it will conform to the provisions of this chapter and all relevant laws and regulations. The plans shall include but not be limited to the following information, in writing and/or diagrams as required by the Planning Director:

(1) A statement as to the specific intentions or ultimate purpose for which the grading is being done.

(2) General location of the proposed site.

(3) Property lines and contours of the existing ground and details of terrain and area drainage.

(4) Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.

(5) Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work, together with a map

showing the drainage area and the estimated runoff of the area served by any drains. The location of any ravines and drainage courses and the pathway of offsite drainage shall be indicated.

(6) Location of buildings or structures on the property where the work is to be performed and the approximate location of buildings or structures on adjacent land owned by other owners which is within 15 feet of the property line or which may be affected by the proposed operations.

(7) A statement of the quantity of excavation and fill.

(8) Specifications, if required, shall contain information covering construction and material requirements.

(9) An erosion control plan and erosion prevention measures for all surfaces exposed or expected to be exposed during grading activities, in accordance with the requirements of the erosion control ordinance (Chapter 16.22 SCCC) shall accompany every proposed grading plan.

(10) Revegetation proposal for all surfaces exposed or expected to be exposed during grading activities.

(11) Name and address of the owner(s).

(12) Assessor's parcel number(s) of the property on which the work is to be done.

(13) Location of on-site trees.

(14) When required by the Planning Director, each application for a grading ~~approval~~permit shall be accompanied by supporting data consisting of a soil engineering report and/or engineering geology report. The soil engineering report shall include data regarding the nature, distribution and strength of existing soils; conclusions and recommendations for grading procedures; design criteria for corrective measures when necessary; and opinions and recommendations covering adequacy of sites to be developed by the proposed grading. The engineering geology report shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading. Recommendations included in the reports and ~~approved~~accepted by the Planning Director shall be incorporated in the grading plans and specifications.

(15) When required by the Planning Director because it appears that the location of property line may be in question in connection with the proposed grading, a parcel survey or other boundary evidence deemed necessary by the Planning Director shall be provided.

(D) Starting and Completion Dates. Each application for a grading permit shall state estimated starting and completion dates. [Ord. 3599 § 4, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.070 ~~Variances~~Exceptions.

(A) A request for an ~~variance~~acception from the provisions of this chapter, the approval conditions, or the plan specifications, may be approved, conditionally approved, or denied according to Chapter 18.10 SCCC at the level specified in SCCC 16.20.040(A) and (B). A request for a ~~variance~~exception must state in writing the provision from which it is to be varied, the proposed substitute provision, when it would apply and its advantages. The following findings shall be required for approval of an exception:

(1) That there are special circumstances or conditions affecting the property; and

(2) That the ~~variance~~exception is necessary for the proper design and/or function of the project.

(B) No ~~variance~~exception shall be granted unless the project, with such ~~variance~~exception, is consistent with the purpose of this chapter.

(C) As contemplated in this section, a ~~variance~~exception shall be granted for alternative methods of construction for projects which could be constructed under the basic standards established in this chapter, but which, if a ~~variance~~exception is granted, can be better and/or more economically designed and constructed than if a ~~variance~~exception were not given. A ~~variance~~exception shall not be granted if the ~~part~~result of a ~~variance~~exception would have the effect of allowing the construction of a project which would otherwise, without the ~~variance~~exception, not be possible under the provisions of the County Code.

(D) Fees for ~~variance~~exceptions shall be set by resolution of the Board of Supervisors. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.080 Approval limitations and conditions.

(A) Issuance. The issuance of a grading ~~approval~~permit shall constitute an authorization to do only that work which is described or illustrated on the application for the ~~approval~~permit or on the approved plans and specifications.

(B) Plan Checking. The application, plans, and specifications filed by an applicant for a~~n approval~~ grading permit shall be checked by the Planning Director within 30 days after receipt of all information required for issuance of the ~~approval~~permit. The Planning Director shall notify the applicant in writing within 30 days of any deficiencies. The Planning Director or Planning Commission shall approve an application for ~~approval~~approval grading permit if the plans filed therewith conform to the requirements of this chapter, zoning ordinances, use permit and design review conditions and other applicable laws.

(C) Denial of ~~Approval~~Grading Permit.

(1) An application for a grading, dredging or diking ~~approval~~permit shall be denied if the Planning Director or Planning Commission makes any of the following findings:

(a) That the design of the proposed site is not consistent with the applicable general and specific plans adopted pursuant to Chapters 13.01 and 13.03 SCCC.

(b) That the proposed grading plan for the development contemplated does not comply with the requirements of the Santa Cruz County Code.

(c) If the project is for the creation of a building site, that adequate sewage facilities and water supplies cannot be provided.

(d) If the project as proposed will cause excessive and unnecessary disturbance of the site particularly as defined in SCCC 16.10.050.

(2) An application for a grading ~~approval~~permit shall be denied if the work proposed would be hazardous by reason of flood, geological hazard, or unstable soils; be liable to endanger other properties or result in the deposition of debris on any public way, property, or drainage course; or otherwise create a hazard.

(3) An application for a grading ~~approval~~permit which would create unavoidable adverse environmental impact shall be denied.

(4) An application for grading in a riparian corridor shall be denied if it is not in conformance with other chapters of the County Code which regulate development activity in riparian corridors.

(5) An application for a grading ~~approval~~permit to place fill within a ~~100-year floodplain~~flood hazard area shall be denied, unless the fill ~~is the minimum amount necessary, not to exceed 50 cubic yards, and~~

~~it can be demonstrated through environmental review that the fill will not cause significant cumulative impacts~~ is in conformation with the Floodplain Management Regulations (SCCC 16.13.6100.

(6) The Planning Director shall notify the applicant in writing of a denial or conditional denial and shall state the reasons therefor.

(D) Restriction on Certain Grading ~~Approval~~Permits. If the project is for the creation of, or access to, a building site, land disturbance shall not take place until a building permit has been issued. If a~~n approval~~grading permit cannot be issued until a determination of adequate water source and sewage disposal or other required site investigation is made, land disturbance shall be limited to the extent necessary to allow such an investigation. This provision shall not apply to improvements or road construction required as a condition of approval of a minor land division or other permit.

(E) Conditions of Approval. In granting any ~~approval~~grading permit under this chapter, the Planning Director or Planning Commission shall attach such conditions as necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

(1) Improvement of any existing grading project to bring it up to the standards of this chapter.

(2) Requirements for fencing of excavations or fills which would otherwise be hazardous.

(3) Haul routes for materials.

(4) Conditions recommended by the Environmental Coordinator.

(5) Conditions recommended by a geological hazard review.

(6) Check dams, cribbing, riprap or other devices which may be required to prevent erosion.

(7) Mulching, fertilizing, watering or other methods may be required to establish new vegetation. On slopes less than 20 percent, stockpiling and reapplication of topsoil shall be required, unless it can be shown that adequate erosion control measures, as per the erosion control ordinance (Chapter16.22 SCCC), can be implemented.

(8) Dust from grading operations shall be controlled.

(9) No earth or organic material shall be deposited or placed where it may be deposited into a stream, marsh, slough, lagoon or body of standing water in a quantity deleterious to wildlife, aquatic life, or other beneficial uses of the water.

(F) Approved Grading Plans. When the Planning Director issues the grading permit, all of the plans and specifications shall be endorsed —approved." Such approved plans and specifications shall not be changed, modified, or altered without written authorization by the Planning Director, and all work shall be done in accordance with the approved plans and this chapter.

(G) Amendment. Amendments to permit approvals granted pursuant to this chapter whether for minor change of project, conditions, or expiration date or other time limits, shall be processed in accordance with the applicable provisions of Chapter 18.10 SCCC, as a minor administrative permit (Level III), Major changes of a project shall be processed at the level specified in SCCC 16.20.040(A) and (B).

(H) Retention of Plans. One set of plans and specifications shall be retained by the Planning Director for a period of not less than two years from the date of completion of work covered therein. Plans which have been submitted for checking and for which no permit is issued may be destroyed by the Planning Director if not picked up by the applicant within ~~90~~120 days.

(I) Posting of Permit. At the time a grading permit is issued, the County shall also issue the permittee a notice of permit form or forms. The permittee shall cause such form or forms to be posted on the property at a place at which such form or forms can easily be seen from any public or private road or from adjacent properties during any time that grading is taking place on the property. A copy of the plans shall be attached to the notice of permit or, in lieu thereof, a brief description in writing and diagrams of the permitted grading.

(J) Work Time Limits. The permittee shall fully perform and complete all of the work required to be done within the time limit specified. If no time limit is specified, the permittee shall complete the work within 180 days after the date of the issuance of the grading permit.

If the permittee is unable to complete the work within the specified time, he shall, prior to the expiration of the permit, present in writing a request for an extension of time, setting forth the reasons for the requested extension. If, in the opinion of the Planning Director, an extension is warranted, additional time may be granted for the completion of the work.

(K) Working Hours. Hours of grading operation shall be between 7:00 a.m. and 6:00 p.m. on weekdays. No grading shall be permitted on Saturdays, Sundays, and holidays, unless specifically authorized as part of an ~~variance~~exception approved by the Planning Director.

(L) Expiration. Unless otherwise specified, grading permit approvals issued pursuant to this chapter shall expire one year from the date of issuance if not exercised. Where approvals are issued in conjunction with a development permit granted pursuant to Chapter 18.10 SCCC the grading permit approval shall expire in accordance with the provisions of Chapter 18.10 SCCC.

(M) Safety Precautions. The permittee shall take all appropriate and necessary precautions to protect adjacent public and private property from damage that may result from the operations.

(N) Property Lines. Whenever the location of a property line is in question as the result of or during operations, the Planning Director may require any boundary evidence which the Planning Director deems necessary. The Planning Director may require the applicant to furnish a parcel survey.

(O) Inclement Weather and Winter Grading. The Planning Director shall stop grading during periods of inclement weather when weather-generated problems are not being controlled adequately. No grading shall occur during the winter season (October 15th through April 15th), unless authorized in advance by the Planning Director with reference to the erosion control ordinance.

(P) Validity. The issuance or granting of approval of grading plans and specifications shall not be construed to be approval of any violation of any of the provisions of this chapter or of any other law.

The issuance of a~~n approval~~ grading permit based on plans and specifications shall not prevent the Planning Director from thereafter requiring the correction of errors in plans and specifications or from preventing operations from being carried on when in violation of this chapter or of any other law.

(Q) Suspension or Revocation of Grading Permit Approval. The Planning Director may, in writing, suspend or revoke a~~n~~ grading permit approval issued under provisions of this chapter whenever the approval is issued in error or on the basis of incorrect information supplied, or in violation of any law or regulation or any of the provisions of this chapter. [Ord. 3599 § 5, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.090 Environmental review.

Applications for grading ~~approvals~~permits shall be ~~submitted to~~reviewed by the Environmental Coordinator pursuant to Santa Cruz County environmental ~~impact~~review regulations. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.100 Hazardous conditions.

Whenever the Planning Director determines that an excavation, embankment, or fill has become a hazard to life and limb, endangers property, or adversely affects the safety, use, or stability of a public way or drainage channel, he or she shall notify in writing the owner(s) of the property or other person or agent in control of the property on which the hazard exists. On receipt of the notice, the owner(s) shall within the period specified eliminate the hazard and bring the property into conformance with the requirements of this chapter. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.110 Diking, dredging and filling.

(A) A grading ~~approval~~permit is required for diking, dredging, and filling of open coastal waters above the ordinary high water line, wetlands, lagoons, estuaries and lakes. An approval shall be issued only for the following purpose and only where there is no other feasible, less environmentally damaging alternative:

(1) Restoration purposes, including the protection and enhancement of existing harbors.

(2) Nature study, aquaculture, or similar resource-dependent activities.

(B) Diking, filling, and dredging in existing estuaries and wetlands is permitted only if it is determined that such activities will maintain or enhance the functional capacity of the wetland or estuary, as determined by the ~~County Environmental Coordinator~~Planning Director.

(C) The dredged material shall be redistributed into the same littoral cell from which it was taken. The deposition of such dredged materials must be timed and located so as not to interfere with shoreline processes, longshore current systems, and public use. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.115 Shoreline protection structures.

A grading permit approval shall be required for all shoreline protection structures which involve the placement of rocks, blocks, or fill material in the coastal hazard zone, including the placement of less than 100 cubic yards of material and maintenance and repair. The design of the proposed structure shall conform to the County's geologic hazard ordinance, Chapter 16.10 SCCC, as determined by the Planning Director. Information

including, but not limited to, geologic reports, engineered plans, beach sand profiles and structural profiles shall be required as deemed necessary by the Planning Director. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.116 Emergency permit approvals.

(A) Emergency grading permit approvals may be granted at the discretion of the Planning Director when a sudden, unexpected occurrence involving a clear and present danger demands immediate action to prevent loss of or damage to life, health, property or essential public services. The emergency grading permit shall conform to the objectives of this chapter and the geologic hazards ordinance, Chapter 16.10 SCCC. The Planning Director may request, at the applicant's expense, verification by a qualified professional of the nature of and solutions to the emergency situation.

(B) The emergency work authorized under ~~this~~the emergency permit approval shall be limited to necessary activities to protect the endangered structure or essential public structure. The emergency ~~approval~~permit shall be voided if the approval is not exercised within 15 days of issuance. The emergency permit approval expires 30 days after commencement of work. Any work completed outside of these time periods requires a regular grading permit approval unless an extension is granted by the Planning Director.

(C) At the time of application for an emergency grading permit approval or within 60 days of issuance of the emergency grading permit~~approval~~ the applicant shall submit a completed application and the appropriate fees for a regular grading permit~~approval~~.

(D) Within 90 days of the issuance of an emergency ~~approval~~grading permit, the owner of the property shall submit all required technical reports and project plans unless a time extension is granted by the Planning Director. If the information described above is not submitted within the specified time, the emergency ~~approval~~grading permit shall be voided and the emergency work shall be considered a violation of this chapter.

(E) If the emergency work is required during nonbusiness hours, the property owner shall submit an emergency grading permit application on the following business day. [Ord. 3599 § 6, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.120 Fees.

Fees for processing grading permit~~approval~~ application and requests for ~~variance~~exceptions shall be set by resolution of the Board of Supervisors.

(A) Grading ~~Approval~~Permit Fees—Subdivision. No plan-checking or grading ~~approval~~permit fees shall be charged for a grading approval for property for which a final subdivision map has been recorded (or a tentative subdivision map has been approved subject to a specific condition that grading will be permitted prior to recording of the final map); provided, that all of the contemplated grading is shown on approved improvement plans pursuant to Chapter 14.01 SCCC. Costs for plan checking and construction inspection for compliance with this chapter shall be determined in the same manner as fees provided in SCCC 14.01.506. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.130 Securities.

Approvals for grading shall not be valid and work shall not be started until the required securities have been provided. Securities shall remain in effect one winter after final inspection and approval of completed work. All expenditures by the County for corrective work necessary because of the permittee's failure to comply with the provisions of the ~~approval~~grading permit and this chapter shall be charged against the security.

(A) If a grading is in excess of 2,000 cubic yards the permittee shall provide a cash deposit, time certificate of deposit, or equivalent security, acceptable to the County, payable to the County to insure compliance with the provisions of the grading permit approval and this chapter.

(B) If deemed necessary by the Planning Director, a similar security, acceptable to the County, may be required for grading operations of less than 2,000 cubic yards.

(C) The amount of security for grading shall be based on the number of cubic yards of material of either excavation or fill, whichever is larger, plus the cost of drainage or other protective devices. The minimum amount required shall be computed as indicated in the following schedule:

(1) Two thousand to 10,000 cubic yards: $0.50 per cubic yard, plus the cost of drainage or other protective devices.

(2) Ten thousand and one cubic yards or more: $5,000 plus $0.25 per cubic yard for each additional cubic yard in excess of 10,000, plus the cost of drainage or other protective devices.

(D) No separate grading security except for security required for winter grading operations shall be required for work on which a final subdivision map has been recorded (or a tentative subdivision map has been approved subject to a specific condition that grading will be permitted prior to recording of the final map); provided, that all of the contemplated grading is shown on approved improvement plans pursuant to

Chapter 14.01 SCCC and the amount of the subdivision improvement, performance, labor and material securities is sufficient to cover all grading.

(E) A separate security for any grading operations authorized during the winter, between October 15th and April 15th, may be required if deemed necessary by the Planning Director. [Ord. 3599 § 7, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.140 Design standards for excavations.

(A) Slope. Cut slopes shall be no steeper than one and one-half horizontal to one vertical. Steeper slopes may be allowed if the Planning Director determines they will be stable or if a civil engineer or professional ~~engineering~~ geologist provides a written statement that the site has been investigated and that in his or her opinion the proposed deviation will be and remain structurally stable. The tops of cut slopes shall be rounded off so as to blend in with the natural terrain. (See Figure 3.)

(B) Drainage and Terraces. Drainage and terraces shall be provided as required by SCCC 16.20.170.

(C) Vegetation Removal. No vegetation removal or grading pursuant to a permit will be allowed which will result in erosion. Vegetation removal shall conform to SCCC 16.22.080. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.150 Design standards for fills.

(A) General. Unless otherwise recommended in the soil engineering report approved by the Planning Director, fills shall conform to the provisions of this section.

(B) Fill Location. Fills shall not be constructed on natural slopes steeper than two to one unless a civil engineer devises a method of placement which will assure the fill will remain in place. The toe of a fill shall be no closer than 12 feet horizontally to the top of existing or planned cut slopes (See Figure 3).

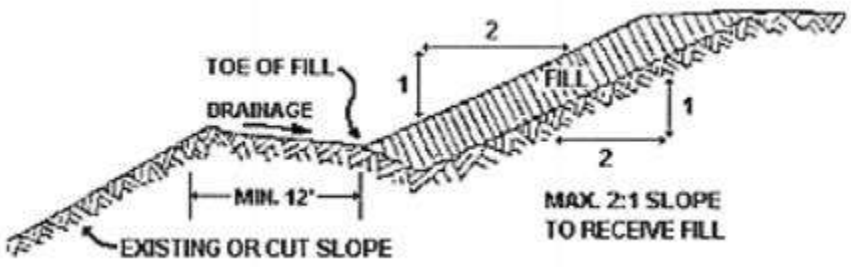


Figure 3

(C) Preparation of Ground for Fill. The ground surface shall be prepared to receive fill by the removal of topsoil and other unsuitable materials and by keying into sound bedrock or other suitable material.

(D) Material Permitted. Earth material free from tree stumps, organic matter, trash, sod, peat and similar material shall be used in fills. Rock, cobbles, and similar material shall be distributed and not nested or piled together, and pieces larger than 12 inches in greatest dimension shall not be used unless a method of placement is approved by the Planning Director. Organic material may be used in the top 12-inch layer of fills to aid plant growth.

(E) Fill Slopes. No fill shall be made which creates an exposed surface steeper in slope than two horizontal to one vertical. The Planning Director may allow a steeper slope or require a flatter slope if he or she finds this consistent with stability and safety.

(F) Compaction of Fills. All fills shall be compacted to a minimum of 90 percent of relative maximum density as determined by ASTM D-1557-70, or CALTRANS test method number California 216. Compaction tests may be required.

(G) Drainage and Terraces. Drainage facilities and terraces shall be provided as required by SCCC 16.20.170. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.160 Cut and fill slope setback.

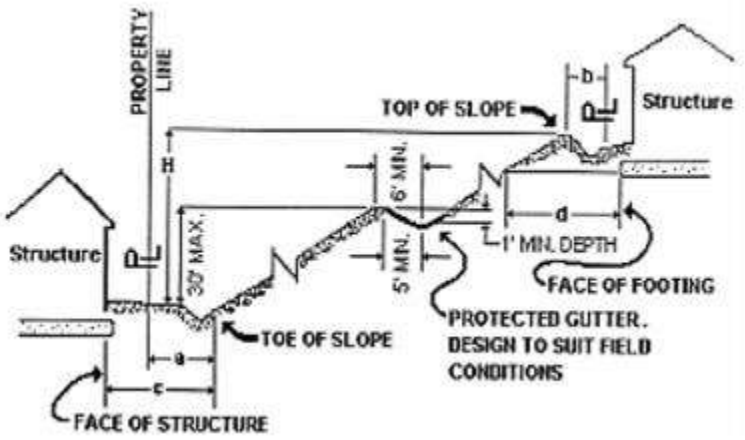
Unless otherwise recommended in the approved engineering report and shown on the approved grading plans, the tops and toes of cut and fill slopes shall be set back from property boundaries and structures, as per Table C and the riparian corridor protection ordinance (Chapter 16.30 SCCC).

Table C

H	a	b	c	d
0—10 feet	3 feet	2 feet	5 feet	5 feet
11—30 feet	(H/2) feet	3 feet	(H/2) feet	7 feet

Table C

H	a	b	c	d
31 feet and over	15 feet	3 feet	15 feet	10 feet



[Ord. 3321 § 1, 1982].

16.20.170 Design standards for drainage facilities and terraces.

(A) General. Drainage facilities and terraces shall conform to the provisions of this section unless otherwise indicated on the approved permit and grading plan.

(B) Drainage Facilities.

(1) Existing drainage courses shall not be obstructed and alterations to them must conform to the provisions of this section.

(2) Drainage facilities shall be provided to carry surface and subsurface waters to the nearest drainage course designated for such purpose by the Planning Director or on-site dry wells. Discharge of waters onto natural ground may be allowed only if a suitable means is provided for reducing the velocity of flow to prevent erosion.

(3) Culvert sizes shall be in accordance with —County Design Criteria, Part 2, Storm Drainage." Minimum diameter shall be 12 inches. Culvert material shall be clay, cast iron, cast-in-place or pre-cast concrete, corrugated steel, aluminum, asbestos-cement or other materials approved by the Planning Director.

(4) Cuts, fills, and retaining walls shall have subsurface drainage facilities if necessary for stability.

(5) Gutters, berms and/or culverts may be required for roads and driveways to control water runoff.

(6) Berms, ditches, or swales shall be constructed at the top of cut and fill slopes for protection against water runoff.

(C) Terraces. Terraces shall be required on cut and fill slopes at not more than 30-foot vertical intervals to control surface water and debris. (See figure in Table C.)

(1) Terraces shall be at least six feet wide.

(2) All swales or ditches on drainage terraces shall be graded to provide suitable drainage and designed to prevent erosion.

(3) Swales or ditches which collect water from a tributary area exceeding one-third of an acre (measured horizontally) shall have down drains. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.180 Design standards for rural private roads and driveways.

(A) All private road and driveway construction requiring a grading ~~approval~~permit shall conform to the provisions of this section and the access standards in the Fire Hazards section of the General Plan Safety Element.. These requirements may be modified for emergency access, temporary roads, or roads leading to an agricultural building or well site if approved in writing by the Planning Director.

(B) ~~Width of roadbed for a roadway shall be 16 feet minimum; width of a driveway shall be 12 feet minimum. Where it is environmentally infeasible to meet these criteria (due to excessive grading or tree removal), a 12-foot-wide all-weather road with 12-foot-wide by 30-foot-long turnouts located approximately every 500 feet may be approved with the approval of the fire department. The distance between turnouts may be adjusted at the discretion of the Planning Director if deemed appropriate for reasons of topography, environment or emergency access.~~ Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet. Areas within 10 feet on each side of portions of highways, public and private streets and roads which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth, and maintained, consistent with the defensible space requirements for the 30 – 100-foot zone around structures. Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, succulents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

Exceptions:

Outside the Urban Services Line: Access roads shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

Inside the Urban Services Line: Inside of the Urban Services Line, private access roads extending from a public road shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.

Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, subccelents or similar plants used as ground covers, are exempt provided that they do not form a means of readily transmitting fire.

(C) ~~Minimum centerline radius shall be 35 feet. (Exception: Driveways which serve as access to any habitable structure and which are 150 feet or less from the main road.)~~No roadway in the State Responsibility Area shall have an inside turning radius of less than 50 feet, with minimum centerline turning radius of 35 feet in other areas. Roadways with a radius curvature of 50 to 100 feet shall require an additional 4 feet of road width. Roadways with radius curvatures of 100 to 200 feet shall require an additional 2 feet of road width.

(D) ~~The maximum grade of the road or driveway shall not exceed 15 percent; however, grades of up to 20 percent are permitted for up to 200 feet at a time.~~The maximum grade of the access road shall not exceed 20 percent (18 percent average), with grades greater than 15 percent not permitted for distances of more than 200 feet at a time, and grades not exceeding 16 percent in State Responsibility Area.

(E) ~~The structural section shall consist of a minimum five inches of baserock, Class II or Class IV. Class IV aggregate base should have a minimum R value of 50, and not more than 10 percent of the aggregate shall pass the number 200 sieve.~~The access road surface shall be —all-weather", which is defined based on road gradient as follows: zero to five percent gradient - a minimum of six inches of compacted aggregate base rock.

Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction and shall be maintained; five to fifteen percent gradient – the required base rock shall be overlain by oil and screenings; greater than fifteen percent grade - the required base rock shall be overlain by 2 inches of asphaltic concrete and shall be maintained.

(F) Where the subgrade is designated as an expansive clayey soil, the structural section should be determined using the California Design Procedure.

~~(G) The aggregate base required by these design standards can be omitted if the Planning Director determines that the native material provides sufficient bearing capacity for all weather use.~~

~~(H) Road surfacing shall meet the following standards, based on road gradient: zero to 10 percent gradient — two inches of drain rock compacted into a four-inch sub-base of Class II baserock; 10 to 15 percent gradient — oil and screenings; greater than 15 percent gradient — one and one-half inches asphaltic concrete. (Exception: aggregate base and asphaltic concrete may be omitted if a structural section of four-inch concrete is used.)~~

(I) Asphalt or concrete berms or their equivalent may be required to control drainage. Discharge shall be at points of natural drainage courses with energy dissipaters installed where necessary to prevent erosion.

(J) Entrances from private roads or driveways into private roads shall be limited in gradient as shown by Figure 4.

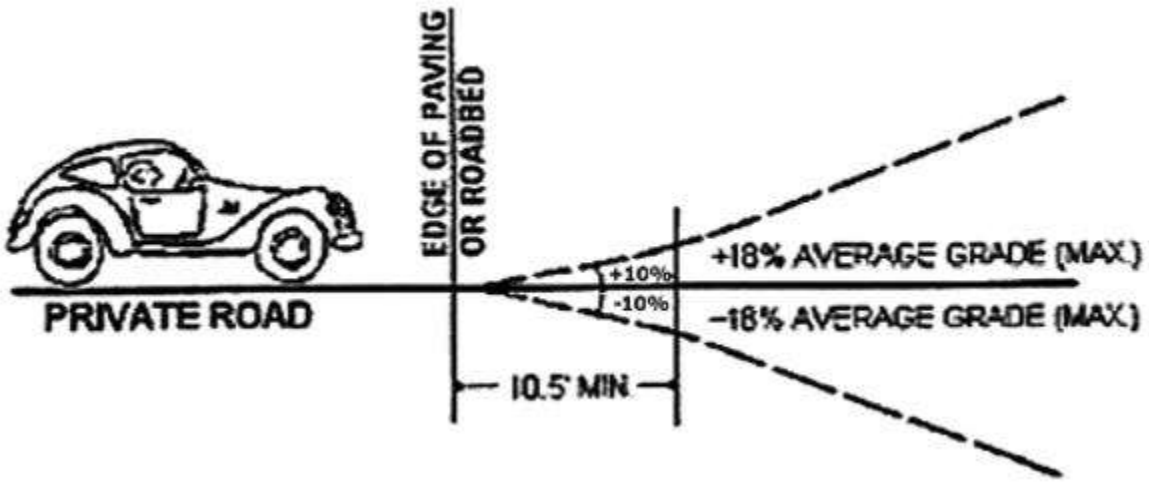


Figure 4. Private Road or Drive

(K) ~~Any roadway or driveway which is more than 300 feet long and a dead end shall have a turn-around area with a minimum of 32 feet radius, or equivalent.~~A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length.

(L) ~~A horizontal clearance of 16 feet and a vertical clearance of 14 feet shall be maintained on all roadways, driveways, and turnouts.~~The access road shall have a vertical clearance of 15 feet for its entire width and length, including turnouts in State Responsibility Area, and 13 feet, 6 inches in other areas.

(M) Where a private driveway will connect to a County-maintained road, an encroachment permit shall first be obtained from the Public Works Department. [Ord. 4678 § 1, 2002; Ord. 4578 § 5, 1999; Ord. 3599 § 8, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.195 Agricultural grading.

(A) General. All permit approvals for agricultural grading shall be issued by the Planning Director. Applicants for an agricultural grading ~~approval~~permit shall submit a plan to the Planning Director, including the following:

(1) Existing and proposed drainage pattern.

(2) Estimate of earth to be moved.

(3) Property map with graded area shown.

(4) Erosion control measures to be taken on disturbed noncrop areas, including long-term maintenance.

(5) Cross-sections of the proposed grading project. Applications for grading for access roads and for building sites, except greenhouse sites, shall not be processed under this section.

(B) Water Retention. The Planning Director may require review or design by the United States Department of Agriculture Soil Conservation, the Santa Cruz County Resource Conservation District, or a soils engineer for the following projects:

(1) On-site water retention (ponds).

(2) Grading with major erosion potential.

The conditions of the design or review shall be part of the permit.

(C) Special Review. The Planning Director can require review of the ~~project~~proposed agricultural grading by the Agricultural Policy Advisory Commission.

(D) Design Standards for Agricultural Grading. Specifications of design for agricultural grading shall be consistent with agricultural practices and needs, and shall assure slope stability, soil conservation, and flood hazard protection. Reference to agricultural grading may be required to be recorded in the deed by the Planning Director as a condition of permit approval.

(E) ~~Approval~~Permit Processing. Agricultural grading ~~approvals~~permit applications shall be processed within 30 days of receipt. Provisions should be made for emergency processing at the discretion of the Planning Director.

(F) Fees and Bonds. The fee for agricultural grading ~~approvals~~permits shall be set by resolution of the Board of Supervisors. No surety bonds are required. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2972, 1980].

16.20.200 Inspection and compliance.

The Planning Director shall conduct inspections to ensure compliance with this chapter.

(A) Inspection. The following inspections shall be performed by the Planning Director or designee.

(1) Pre-Site Inspection. To determine the suitability of the proposed grading project.

(2) Grading operation progress.

(3) Final Inspection. To determine compliance with plans and specifications.

(B) Notification. The permittee shall notify the Planning Director 24 hours prior to the start of the authorized work and also 24 hours prior to any inspection requested by permittee or permittee's authorized agent.

(C) Right of Entry. The filing of an application for a grading ~~approval~~permit constitutes a grant of permission for the County to enter the development area for the purpose of administering this chapter from the date of the application to the termination of the erosion control maintenance period. If necessary, the Planning Director shall be supplied with a key or lock combination or permitted to install a County lock.

(D) Final Inspection. Final inspection and approval of the building permit, development permit or parcel approval shall not occur until the project is in compliance with all of the grading permit approval conditions and

all of the provisions of this chapter. [Ord. 4281 § 12, 1993; Ord. 3599 § 9, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.210 Grading violations.

(A) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any grading as defined in SCCC 16.20.030 unless (1) a development permit has been obtained and is in effect which authorizes the grading, or (2) the grading is exempt from the requirement for a permit by the provisions of SCCC 16.20.040 and the provisions of Chapter 13.20 SCCC.

(B) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any diking, dredging, or filling of open coastal water above the ordinary high water line, or of wetlands, lagoons, estuaries, or lakes unless a ~~development~~grading permit has been obtained and is in effect which authorizes such activities.

(C) It shall be unlawful for any person to do, cause, permit, aid, abet, suffer or furnish equipment or labor for any shoreline protection structures which involve the placement of rocks, blocks, or fill material in a coastal hazard zone unless a ~~development~~grading permit has been obtained and is in effect which authorizes such activities.

(D) It shall be unlawful for any person to exercise a development permit which authorizes grading without complying with all of the conditions of such permit.

(E) It shall be unlawful for any person to refuse or fail to abate a hazardous condition as required by a notice of hazardous condition issued by the Planning Director under the provisions of SCCC 16.20.100.

(F) It shall be unlawful for any person to knowingly do, cause, permit, aid, abet or furnish equipment or labor for any work in violation of a stop work notice from and after the date it is posted on the site until the stop work notice is authorized to be removed by the Planning Director.

(G) If the Planning Director determines that any grading occurring in the County does not comply with the ~~development~~approved grading permit or this chapter, he or she may stop all work until corrective measures have been completed. The site shall be posted with a ~~s~~top work" notice. No building, septic tank, encroachment or other permit shall be issued by the County, and the County may require that all work shall be stopped pursuant to any such permits issued, until corrections have been made to the satisfaction of the Planning Director.

(H) Whenever the Planning Director determines that grading has been done without the required grading~~development~~ permit, he or she may refuse to issue a permit for the work already completed and require mitigating action. [Ord. 3451-A § 11, 1983; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.220 Transfer of responsibility.

If the civil engineer, the soil engineer or the ~~engineering~~professional geologist of record is changed during the course of the work, the work may be stopped until the replacement has agreed to accept the responsibility within the area of his or her technical competence for approving the work already accomplished. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.230 Completion and approval.

If a civil engineer or another professional licensed by State law prepared the grading plans, he or she shall provide a written statement to the Planning Director that all grading was completed in conformance with the provisions of the permit and this chapter. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.240 Recording notice of violation.

Repealed by Ord. 4392A. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.250 Removal of notice of violation.

Repealed by Ord. 4392A. [Ord. 3321 § 1, 1982].

16.20.260 Abatement of nuisance.

Repealed by Ord. 4392A. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982].

16.20.270 Penalties.

Repealed by Ord. 4392A. [Ord. 3321 § 1, 1982].

16.20.280 Appeals.

All appeals of actions taken pursuant to the provisions of this chapter shall be made in conformance to the applicable procedures of Chapter 18.10 SCCC. [Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

Exhibit M

Correspondence

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OFFICE OF THE FIRE MARSHAL

SANTA CRUZ COUNTY FIRE DEPARTMENT / CAL FIRE

CAL FIRE
SAN MATEO-SANTA CRUZ UNIT
6059 HIGHWAY 9
P.O. DRAWER F-2
FELTON, CA 95018
Phone (831) 335-6748
Fax # (831) 335-4053

SCOTT JALBERT
FIRE CHIEF

November 4, 2014

Edith Hannigan
Board Consultant, SRA
Board of Forestry and Fire Protection
PO Box 944246
Sacramento, CA 94244-2460

RE: Review of the Fire Safe Element of the Santa Cruz County General Plan (2014).

The Santa Cruz County Planning Department contacted the Santa Cruz County Fire Prevention Officers Association in the spring of 2014 to inform the group that a review of the Fire Safe Element of the General Plan needed to be conducted prior to November of 2014.

In the late summer of 2014 personnel from the Santa Cruz County Planning department presented a "draft" edition of the fire safe element to the Santa Cruz County Fire Prevention Officers for their review and comments. A discussion followed during that meeting, and it was determined that a review committee of Fire Prevention Officers and the lead planning staff member would meet for discussion of the review comments.

In October of 2014, the committee met and discussed the "draft" fire safe element and a consensus was reached with the new review comments. The county planning staff member captured the review comments and in October returned a final "draft" version of the fire safe element. Other than some minor corrections, that is the version that was submitted to your office.

We are pleased with the final construction of the new 2014 fire safe element, and believe it will meet the needs of Santa Cruz County into the future.

Should you have any additional concerns, you may contact our office at (831) 335-6748.

EXHIBIT M

Sincerely,

Christopher Walters
Deputy Fire Marshal
Santa Cruz County Fire

Cc: Chron

COUNTY OF SANTA CRUZ | Planning Department

MEMORANDUM

Date: February 18, 2015

To: David Carlson

From: Todd Sexauer

Re: Initial Study/Negative Declaration for Amendments of General Plan / Local Coastal Program Public Safety and Noise Elements, and Amendments of County Code Geologic Hazards Ordinance, Floodplain Regulations, and Erosion Control Ordinance

As a result of the public review period and further review by Planning Department staff, various changes have been made to the Initial Study/Negative Declaration. The changes consists of various clarifying statements and other edits to proposed General Plan / Local Coastal Program (GP/LCP) policy amendments and proposed ordinance amendments. The reasons for the text changes are to ensure the GP/LCP is internally consistent, and consistent with implementing ordinances, and to clarify the intent of certain policy or ordinance language, without changing the goals or purposes of the any policy or ordinance section.

The changes discussed above do not substantially revise the Initial Study/Negative Declaration; therefore, it does not need to be recirculated pursuant to Section 15703.5 of the CEQA Guidelines. The changes made in response to written and verbal comments on the project's effects identified in the proposed Negative Declaration are not new avoidable significant effects. The new information added to the Negative Declaration merely clarifies, amplifies, or makes insignificant modifications to the Negative Declaration.

David Carlson

From: Farinha, Melissa@Wildlife [Melissa.Farinha@wildlife.ca.gov]
Sent: Wednesday, January 21, 2015 11:03 AM
To: David Carlson
Subject: Negative Declaration for GP/LCP

Good Morning Dave,
The following are minor edits I had for the neg dec.

IS Checklist Comment:
I. 6: Less than significant impact is checked yet the discussion states that no impacts are anticipated.

Proposed Amendments Comment:
16.13.880 (D): the word "and" can be removed in the sentence.

Best,

Melissa A. Farinha
California Department of Fish and Wildlife
Environmental Scientist - Santa Cruz County
7329 Silverado Trail
Napa, CA 94558
(707) 944-5579

EXHIBIT M

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

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

January 21, 2015

David Carlson
County of Santa Cruz Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

Subject: **Initial Study and Negative Declaration for General Plan/Local Coastal Program Public Safety and Noise Elements, County Code Geologic Hazards Ordinance, Floodplain Regulations, and Erosion Control Ordinance Amendments**

Dear Mr. Carlson:

Thank you for the opportunity to review and comment on the Initial Study and Negative Declaration for the proposed amendments. The amendments include substantial and substantive changes to the County's General Plan/Local Coastal Program Public Safety and Noise Elements, the County's Geologic Hazard and Erosion Control ordinances, and include an entirely new Floodplain Management Ordinance. The proposed changes raise issues of statewide significance and in some cases would present a significant departure from the Commission's current practices in addressing coastal hazards via LCP planning. For example, the proposed changes to Section 6.2 of the General Plan/LUP (Coastal Bluffs and Beaches), and corresponding changes to Chapter 16.10 of the Implementation Plan, raise issues of statewide significance with respect to the appropriate metric for anticipated sea level rise, calculation of appropriate beach and bluff setbacks, and the treatment of shoreline protective structures in that process. While many of the changes appear on their surface to be positive, other changes appear to have significant coastal resource concerns, and we simply have not had adequate time to analyze and fully consider all of their potential implications, especially because such analysis and consideration of the proposed amendments must involve Commission staff at a statewide level. Indeed, while we had one brief meeting with the County in December to discuss some of the key features of the amendments, we did not see the actual language until the Initial Study/Negative Declaration was circulated for public comment right before the winter holidays. While we are open to consideration of these changes, we have unfortunately had less than a month, in the middle of the winter holiday, to consider them, and without the benefit of a full Environmental Impact Report (EIR). It is also our understanding that the County intends on completing its local review, including adoption at the Board of Supervisors level, by March 2015. Therefore, the primary purpose of this letter is to request more time for the County and Commission staff to engage in an inter-agency (and public) process to fully consider these changes prior to consideration and adoption by the County. This will allow the County and Commission staff to come to agreement on as much of the language as possible *before* formal submission of the Local Coastal Program amendments,

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and hopefully avoid a situation in which extensive later changes are required through the Commission's process.

During the process for the County's 2012 LCP amendment submittal regarding the Non-conforming Use Ordinance, Commission staff and County staff also discussed needed amendments to the LCP's Public Safety Element. At that time, all parties appeared to agree that the process would greatly benefit from early coordination in order to work through appropriate language for the amendments *prior to the County adopting final language for submittal to the Commission* in order to allow for the public, Planning Commission and Board of Supervisors to all have the benefit of the Commission staff's input. We continue to prefer that approach. We are also concerned as to whether the public and interested stakeholders have been adequately engaged, and whether the process might benefit from greater public outreach as was done for the County's 2011 Vacation Rental Ordinance (e.g. public and/or Planning Commission workshops). Ultimately, that process seemed to be extremely well-served by the County's outreach efforts. Given the significant implications of the proposed amendments here, it would seem that such as process would be warranted as well. While this will clearly require more work now, it will hopefully facilitate a less contentious and more streamlined process through the Commission.

In sum, the proposed LCP amendments include significant and far reaching changes to the County's certified LCP, some of which have statewide ramifications and will require extensive review and consideration by Commission staff, County staff, and stakeholder groups prior to submission of the amendments to the Coastal Commission for certification. We therefore strongly encourage the County to allow for those processes to occur now, before Planning Commission and final review and approval of the amendments by the Board of Supervisors, in order to provide an opportunity for the parties to come to agreement on as much as possible before formal submission of the LCP amendments to the Commission. Undertaking such discussions between Commission staff, County staff, and stakeholder groups will hopefully avoid a situation in which extensive later changes to the proposed amendments are required through the Commission's process.

Thank you for your consideration. These are preliminary comments, and we hope to continue to work with the County on the amendments in the local planning process, thereby increasing the likelihood that the amendments can be approved by the Coastal Commission as submitted. If you have any questions or concerns, please do not hesitate to contact me at the address and phone number listed above.

Sincerely,

Ryan Moroney
Coastal Program Analyst
Central Coast District Office
California Coastal Commission

BOARD OF FORESTRY AND FIRE PROTECTION
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David Carlson
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

January 8, 2015

Dear Mr. Carlson:

The State Board of Forestry and Fire Protection (Board) is required to review and provide recommendations to the safety element of county and local government general plans when such plans are being amended. This review is in accordance with Government Code (GC) §65302.5 which requires the Board to review the fire safety elements when the general plans contains State Responsibility Areas or Very High Fire Hazard Severity Zones.

The Board has identified several issues with the submitted safety element. The policies and programs outlined in the Draft Safety Element are focused on specific development requirements for road construction and other standards, which are best placed in local ordinance. If these standards remain in the safety element, the Board is concerned about potential conflicts and confusion between the safety element, local ordinances, and state fire safe development regulations. Additionally, the Board is concerned about the workload requirements this dual publication of the ordinances present – whenever the General Plan or the ordinances are updated, so would the other document. The General Plan should outline the *general* planning guidelines upon which the *specific* standards in city ordinance are based.

Additionally, the safety element mentions Critical Fire Hazard Maps and Urban Services Line but does not define or map those areas. Including maps of those areas would greatly enhance the submitted safety element. The Board also recommends the County coordinate those areas with CAL FIRE State Responsibility Areas and Very High Fire Hazard Severity Zones, so that implementation projects can be aligned between all the fire protection plans covering the planning area.

The policies and implementation measures included in the safety element should address ways in which development in Santa Cruz County will recognize and respond to the wildfire risk in the given project area, as well as opportunities to reduce risk to existing nonconforming structures and developments or vulnerable populations. They should be consistent with implementation measures in other plans such as the Santa Cruz Unit Strategic Fire Plan and San Mateo-Santa Cruz Community Wildfire Protection Plan.

Attached is the Safety Element Assessment the Board and local Units use to evaluate safety elements submitted to the Board for review. The Board recommends Santa Cruz

County use it as a guide to revise the Draft Safety Element for greater alignment with SB 1241 and the updated requirements in Government Code §65302. As it currently stands, the Board believes this safety element would create confusion among people trying to develop in Santa Cruz County, as it conflicts with other plans and ordinances that guide development in the County.

Government Code §65302.5 also requires Santa Cruz County to consider and accept the recommendations made by the Board and communicate in writing to the Board its reasons for not accepting any recommendations.

Thank you for the opportunity to participate in your planning process and we look forward to working with you on these recommendations. We hope this input leads to greater protection and reduced cost and losses from wildfires to Santa Cruz County and adjacent wildlands.

Sincerely,

J. Keith Gilless
Chair, Board of Forestry and Fire Protection

CC: Captain Chris Walters, CAL FIRE CZU/Santa Cruz County Fire
Chief Pete Muñoa, CAL FIRE Land Use Planning Program

Enclosure: General Plan Safety Element Assessment Template Version 1

David Carlson

From: Dan Chauvet [danchauvet@sbcglobal.net]
Sent: Saturday, January 10, 2015 12:23 PM
To: David Carlson
Cc: Wanda Williams; Rayvon Williams; Raiyn Bain; Gary Cathey; Mike McIntyre; John Cowan; John Randolph
Subject: Fw: Fw: Fw: Santa Cruz County General Plan Update-CEQA doc

David Carlson@santacruzcounty.us
Subject: Re: Fw: Santa Cruz County General Plan Update-CEQA doc

Hello Mr. Carlson,
We have reviewed the Section on Noise, specifically airport related noise, and advise adding the following statement to your attachment paragraph:

"A Disclosure Statement and Overflight Easement are required in the Airport Influence Area (AIA); this applies to real estate transactions and building permits." (or similarly worded)

Note: As pertains to Noise and Safety, the AIA is the racetrack shaped area, usually geographically depicted two (2) statute miles from the center-line of the airport's longest runway. Airport land use planning is required inside the AIA. Disclosure Statements and Overflight Easements are about the only requirements in the area between the AIA line and the 6 safety zones.
Reference: California Airport land Use Planning Handbook (October 2011) page L-2. And Mead Hunt [Consultants] sample KWVI land use compatibility plan provided by Caltrans Division of Aeronautics.

Dan E. Chauvet
Secretary for Legal Affairs
Watsonville Pilots Association

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