County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: 711
KATHLEEN MOLLOY, PLANNING DIRECTOR
www.sccoplanning.com

NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION
NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

Pursuant to the California Environmental Quality Act, the following project has been reviewed by the County Environmental Coordinator to determine if it has a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A Negative Declaration is prepared in cases where the project is determined not to have any significant environmental impacts. Either a Mitigated Negative Declaration or Environmental Impact Report (EIR) is prepared for projects that may result in a significant impact to the environment.

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at www.sccoplanning.com under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Paia Levine of the Planning Department at (831) 454-5317.

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Shawver at (831) 454-3137 to make arrangements.

PROJECT: Public Safety and Hazard Management General Plan, Local Coastal Program and County Code Amendments
APP #: N/A
APN(S): Countywide
PROJECT DESCRIPTION:

A. Update and amendment of General Plan/LCP Public Safety Element and implementing Santa Cruz County Code Title 16 Environmental Resource Protection regulations regarding environmental review, geologic hazards, floodplain management, erosion, and fire hazards, and update and amendment of General Plan/LCP Conservation and Open Space Element to move Air Quality section to Public Safety Element; and

B. New General Plan/LCP Noise Element relocated from Public Safety Element and new Santa Cruz County Code Chapter 13.15 Noise Planning; and

C. Amendment of General Plan/LCP Land Use, Circulation, and Conservation and Open Space Elements to establish Airport Land Use Compatibility policies consistent with state handbook, including an updated Santa Cruz County Code Chapter 13.12 to establish the Airport Combining Zone District, and rezoning of affected properties within two miles of Watsonville Municipal Airport.

EXISTING ZONE DISTRICT: N/A
APPLICANT: Santa Cruz County Planning Department
PROJECT PLANNER: David Carlson, (831) 454-3173
EMAIL: David.Carlson@santacruzcounty.us
ACTION: Negative Declaration
REVIEW PERIOD: June 22, 2018 through August 1, 2018

This project will be considered at a public hearing before the Planning Commission. 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.

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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date:	June 11, 2018 Draft	**Application Number:**	N/A
Project Name:	**PUBLIC SAFETY AND HAZARD MANAGEMENT GENERAL PLAN, LOCAL COASTAL PROGRAM AND COUNTY CODE UPDATES AND AMENDMENTS:** A. Update and amendment of General Plan/LCP Public Safety Element and implementing Santa Cruz County Code Title 16 Environmental Resource Protection regulations regarding environmental review, geologic hazards, floodplain management, erosion, and fire hazards, and update and amendment of General Plan/LCP Conservation and Open Space Element to move Air Quality section to Public Safety Element; and B. New General Plan/LCP Noise Element relocated from Public Safety Element and new SCCC Chapter 13.15 Noise Planning; and C. Amendment of General Plan/LCP Land Use, Circulation, and Conservation and Open Space Elements to establish Airport Land Use Compatibility policies consistent with state handbook, including an updated SCCC Chapter 13.12 to establish the Airport Combining Zone District, and rezoning of affected properties within two miles of Watsonville Municipal Airport.	**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: Throughout the unincorporated area of the County of Santa Cruz.

SUMMARY PROJECT DESCRIPTION:

A. Update and amendment of Safety Element and Implementing SCCC Title 16 Environmental Resource Protection Regulations

Update and amendment of the Safety Element to meet current requirements of state law, including but not limited to addressing environmental factors such as climate change, sea level rise, coastal bluffs and beaches, shoreline protection measures, floodplain management consistent with FEMA requirements and best practices, and environmental justice for disadvantaged communities. Incorporation (of information and by reference) of the Climate Action Strategy (CAS) and Local Hazard Mitigation Plan (LHMP), to meet certain state requirements for Safety Elements. Fire hazard amendments for consistency with state law, including wildland urban interface standards, access and development standards, and for defensible space for 30- and100-feet around existing development. Erosion hazard amendments addressing land clearing and grading. Amendment of Conservation and Open Space Element to shift the Air Quality section into the Safety Element, to reflect importance of air quality related to climate change and public health and safety.

Amending the Santa Cruz County Code (SCCC) regulations that implement the Safety Element, including Chapter 16.10 Geologic Hazards, shifting flood regulations from geohazard regulations to create new Chapter 16.13 Floodplain Management Regulations, Chapter 16.20 Grading Regulations, and Chapter 16.22 Erosion Control, in order to clarify permit procedures, to incorporate standards related to sea level rise especially for coastal bluffs and beaches and for flood hazard areas, to reduce the amount of land that can be cleared without a land clearing permit, and to implement policies of the updated Safety Element for other hazards such as landslides, earthquakes and liquefaction. The grading regulations are amended to incorporate the site access standards consistent with the proposed amendments to the Fire Hazard section of the GP/LCP Safety Element.

Amending the Santa Cruz County Code Chapter 16.01 "Regulations for Preserving and Enhancing the Environment" and 1991 County Environmental Review Guidelines, to rename to Procedures for Compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines, to update procedures for environmental review to ensure compliance with the latest California Environmental Quality Act (CEQA) and State CEQA Guidelines.

B. New Noise Element and Amendment of SCCC Chapter 8.3 Noise

Update and amendment of the Noise Element policies to clarify and ensure consistency with State General Plan Guidelines, including shifting noise section from Safety Element and creating stand-alone Noise Element as a new Chapter 9 of the General Plan/Local Coastal Program.

New Santa Cruz County Code chapter 13.15 Noise Planning to implement the policies of the Noise Element in the land use permitting process. Addresses land use planning, development permitting,

airport noise, and enforcement. Existing provisions addressing offensive noise are maintained in SCCC Chapter 8.3 Noise. The proposed amendments would implement policies of the General Plan Noise Element and provide clear regulatory and enforcement standards.

C. Update and amendment of Airport Land Use Compatibility Policies Consistent with State Handbook

Amendments to the Land Use Element to establish Airport Land Use Compatibility policies and relocate and update existing policies on airport area safety and private air strips from the Circulation Element to the Land Use Element, to ensure consistency with the California Airport Land Use Planning Handbook and other applicable state and federal regulations. The existing Air Transportation section is amended and shifted from Noise section of Safety Element to the Land Use Element.

Amendment of Santa Cruz County Code Chapter 13.12 to replace the current Airport Approach Zones regulations with a new Airport Combining Zone District, and Amendments to Zoning Map to rezone properties near Watsonville Municipal Airport to the Airport Combining Zone District, to implement Airport Land Use Compatibility policies.

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	☒ Land Use and Planning
☐ Agriculture and Forestry Resources	☐ Mineral Resources
☒ Air Quality	☒ Noise
☒ Biological Resources	☐ Population and Housing
☐ Cultural Resources	☐ Public Services
☒ Geology and Soils	☒ Recreation
☒ Greenhouse Gas Emissions	☒ Transportation/Traffic
☒ Hazards and Hazardous Materials	☒ Utilities and Service Systems
☒ Hydrology/Water Supply/Water Quality	☐ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

☒ General Plan Amendment/ Local Coastal Program Amendment	☐ Coastal Development Permit
☐ Land Division	☐ Grading Permit
☒ Rezoning	☐ Riparian Exception
☐ Development Permit	☐ LAFCO Annexation
☐ Sewer Connection Permit	☒ Other: County Code Amendments

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.

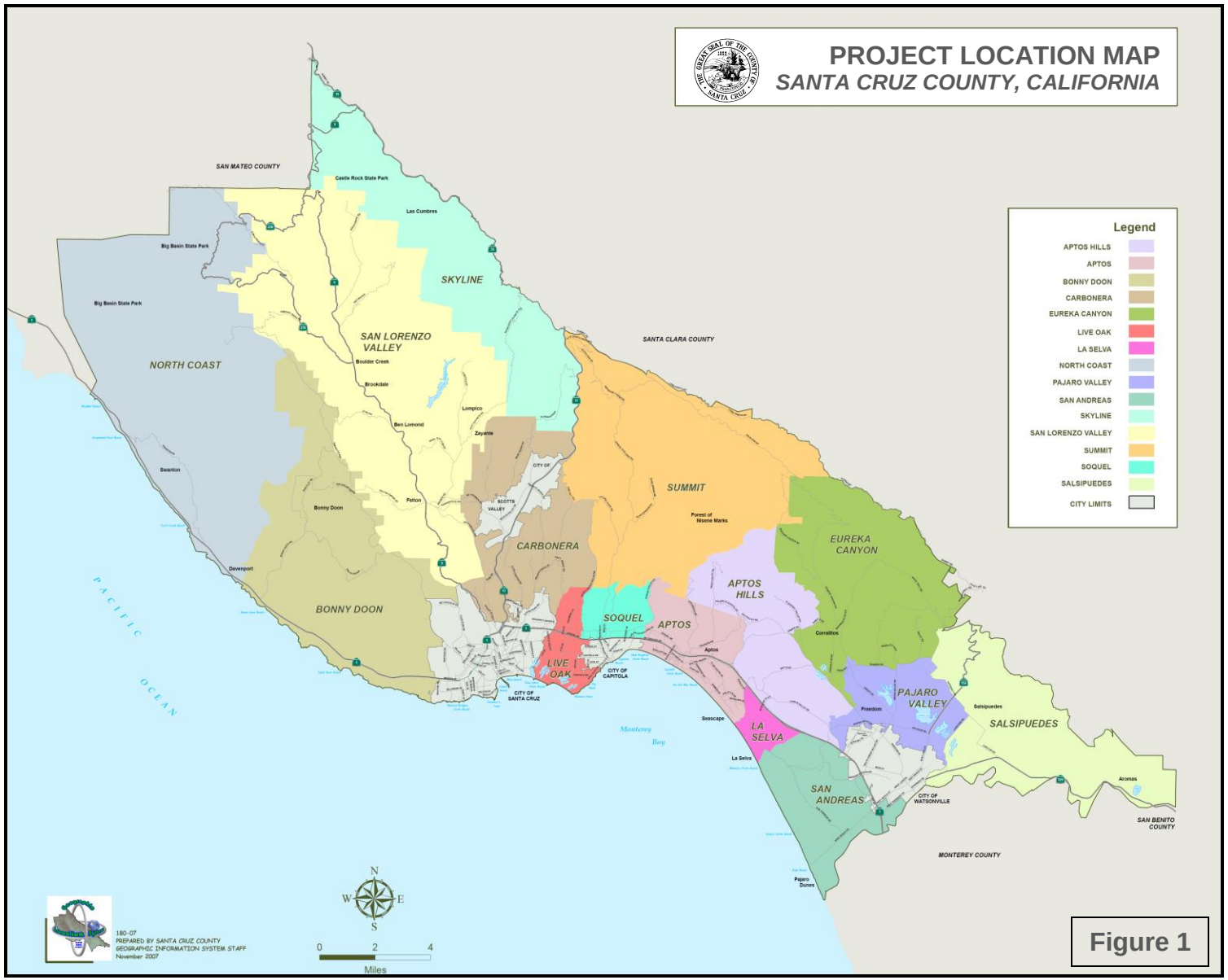
Kathy Molloy — 6-20-2018

KATHY MOLLOY, Planning Director — Date

County of Santa Cruz Planning Department

Attachments:

1. General Plan/Local Coastal Program Chapter 2 Land Use Element Amendments
2. General Plan/Local Coastal Program Chapter 3 Circulation Element Amendments
3. General Plan/Local Coastal Program Chapter 5 Conservation and Open Space Element Amendments
4. General Plan/Local Coastal Program Chapter 6 Public Safety Element Amendments
5. General Plan/Local Coastal Program Chapter 9 Noise Element
6. Santa Cruz County Code Chapter 13.12 Airport Combining Zone District Amendments
7. Santa Cruz County Code Chapter 13.15 Noise Planning
8. Santa Cruz County Code Chapter 16.01 Procedures for Compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines Amendments
9. Santa Cruz County Code Chapter 16.10 Geologic Hazards Amendments
10. Santa Cruz County Code Chapter 16.13 Floodplain Regulations
11. Santa Cruz County Code Chapter 16.20 Grading Regulations Amendments
12. Santa Cruz County Code Chapter 16.22 Erosion Control Amendments


PROJECT LOCATION MAP
SANTA CRUZ COUNTY, CALIFORNIA
Legend
APTOS HILLS
APTOS
BONNY DOON
CARBONERA
EUREKA CANYON
LIVE OAK
LA SELVA
NORTH COAST
PAJARO VALLEY
SAN ANDREAS
SKYLINE
SAN LORENZO VALLEY
SUMMIT
SOQUEL
SALSIPUEDES
CITY LIMITS
SAN MATEO COUNTY
SANTA CLARA COUNTY
MONTEREY COUNTY
SAN BENITO COUNTY
NORTH COAST
SKYLINE
SAN LORENZO VALLEY
SUMMIT
CARBONERA
BONNY DOON
APTOS HILLS
APTOS
SOQUEL
LIVE OAK
EUREKA CANYON
PAJARO VALLEY
LA SELVA
SAN ANDREAS
SALSIPUEDES
PACIFIC OCEAN
Monterey Bay
CITY OF SANTA CRUZ
CITY OF CAPITOLA
CITY OF WATSONVILLE
Boulder Creek
Brookdale
Ben Lomond
Felton
Davenport
Bonny Doon
Swanton
Big Basin State Park
Castle Rock State Park
Las Cumbres
Lompico
Zayante
Forest of Nisene Marks
Corralitos
Aptos
Freedom
Seascape
La Selva
Aromas
Pajaro Dunes
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0 2 4
Miles
180-07
PREPARED BY SANTA CRUZ COUNTY
GEOGRAPHIC INFORMATION SYSTEM STAFF
November 2007
Figure 1

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres): N/A
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 are located to the west and south, respectively. The inland boundary of the County follows the crest of the Santa Cruz Mountains from the northwest to the southeast. Coastal areas of the County containing broad terraces are dominated by urbanization in the central area of the coast and the prime agricultural lands along both the northern and southern coasts of the county. 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. 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 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.

PROJECT BACKGROUND:

This project to amend portions of the General Plan/Local Coastal Program (GP/LCP) and the County Code that address public safety, circulation and land use 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) and Climate Action Strategy (CAS).

Regarding climate change, in February 2013, the County adopted the 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. 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 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 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 multi-pronged approach to adapting to sea level rise and increased coastal risks. An inventory of vulnerable public infrastructure showed that critical transportation and utility infrastructure near 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 on the beach, with a public or private street on the inland side of the homes. In these cases, any coastal protection structures associated with the homes, and in some cases the homes themselves, are protecting the street and the utilities under the street from damage from sea level rise and coastal erosion. In many cases it is therefore in the public interest to acknowledge these homes will continue to exist, and they will 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, and new policies and regulations reflect this difference by treating rural areas, where natural coastal retreat is an appropriate option, differently from areas in the urban and rural services lines.

- Regulations that require property owners in hazard prone areas to acknowledge and accept the risks and potential future losses, waive any claim of liability against the County, indemnify and hold harmless the County, and other acknowledgements and agreements applicable to the hazard affecting the development.
- A set of policies that address the possibility that structures may have to be removed or relocated in the future due to beach or bluff erosion, or due to repetitive damage.

Regarding hazard mitigation, 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 and Grading Ordinances.

Existing provisions of the General Plan and County Code addressing land use in the unincorporated areas surrounding the Watsonville Municipal Airport need to be updated and brought into compliance with the California Airport Land Use Planning Handbook. This requires changes to several sections of the General Plan addressing land use, public safety, and circulation, and the County Code section containing land use regulations that apply in the airport vicinity.

DETAILED PROJECT DESCRIPTION:

See Attachment 1 for the proposed changes to GP/LCP policies and County Code regulations in underline/strikeout format.

A. <u>Update and amendment of Safety Element and Implementing SCCC Title 16 Environmental Resource Protection Regulations</u>

The proposed project would amend the General Plan and Local Coastal Program (GP/LCP) Public Safety and Noise Element to include new and amended policies and goals to address climate change mitigation and adaptation strategies, sea level rise and tsunamis. New and amended policies would also address flooding, erosion, fire, and airport area land use. The following sections are proposed to be amended: 6.2 Coastal Bluffs and Beaches, 6.3 Erosion,

6.4 Flood Hazards, 6.5 Fire Hazards, 6.11 Air Transportation, and 3.18 and 3.19 Air Travel. A new Section 2.25 Airport Land Use Compatibility would be added to the Land Use Element. Related amendments to various County Code Chapters are necessary to implement the policy amendments. The following chapters are proposed to be amended: 16.10 Geologic Hazards, 16.22 Erosion Control, 16.13 Floodplain Regulations, 16.20 Grading Regulations, and 13.12 Airport Approach Zones.

Proposed Amendments to GP/LCP Chapter 6 Public Safety Element

The Public Safety Element would be revised to provide information about requirements of state planning law in the introduction regarding flooding, fires, and climate change. These updates to the Public Safety Element are proposed for consistency with state law, including incorporating by reference the LHMP and the CAS, and adding a new section addressing environmental justice.

Proposed Amendments to GP/LCP Section 6.1 Seismic Hazards

This section would be revised to add clarifying language to the policies and additional information on seismic hazards including earthquakes, tsunami, and liquefaction. The policy addressing recording a notice of hazard on the property deed would be renamed and includes additional requirements to accept the risk, release the County from liability, and an agreement to waive claims against the County.

Proposed Amendments to GP/LCP Climate Change

A new Section 6.2 would be added that addresses climate change and incorporates by reference the LHMP and the CAS and future updates of these plans.

Proposed Amendments to GP/LCP Section 6.2 Slope Stability

The existing Section 6.2 addressing slope stability would be renamed Section 6.3. The proposed revisions would add clarifying language regarding technical reports and rename the policy addressing recording a notice of hazard on the property deed and include additional requirements to accept the risk, release the County from liability, and an agreement to waive claims against the County.

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

A new Section 6.4 would be added that addresses specific hazards on coastal bluffs and beaches. The existing policies addressing coastal bluffs and beaches are located at the end of Section 6.2. The proposed policies incorporate all the existing policies and significantly expand the scope of the policies to address the hazard of climate change and sea level rise. The section would be re-structured to provide a framework for addressing the diverse nature of the coastline and coastal development in the County. The hierarchy would include general policies that apply to all projects, policies that apply to shoreline type, policies that apply to project type, and policies that address ongoing adaptation to sea level rise along the County's coastline and in specific shoreline areas.

The proposed section includes an introduction providing background information about the hazard and a set of guiding principles for the policies. The overall objective would be to reduce and minimize risks to life, property, and public infrastructure from coastal hazards, including projected hazards due to sea level rise, wave run-up and coastal erosion, and to minimize impacts on coastal resources from development.

The County's General Plan (GP) and LCP are combined in one document, the GP/LCP. The proposed amendments in Section 6.4 represent a timely update to the County's Local Coastal Program (LCP) in response to the best available science on the hazard of climate change and sea level rise. Because of their role in reviewing proposed LCP amendments, and to help local communities prepare these updates the California Coastal Commission (CCC) published sea level rise policy guidance in 2015. In 2017 the CCC published additional draft guidance specifically addressing residential adaptation policies. The CCC guidance is not regulatory or a legal standard of review and does not change the applicable requirements of the Coastal Act. The County's existing GP/LCP is consistent with the Coastal Act and is approved by the CCC. The County's proposed policies represent a significant improvement of existing policies to address development on coastal bluffs and beaches in response to best available science on the hazard of climate change and sea level rise. This significant improvement is due to the County's reliance on the CCC guidance to develop the proposed policies in substantial conformance with the CCC guidance.

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, require additional review of coastal protection structures, and require payment of mitigation fees to offset the impact 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 re-evaluation of coastal protection structures when the building being protected is significantly remodeled or rebuilt. There are several relevant new policies that follow the proposed guiding principles and achieve the objective of this section. The primary proposed new policy is indicated in parenthesis:

- Use best available science to determine the level of future sea level rise to use in hazard analysis for planning purposes and incorporate sea level rise in the analysis of potential hazards to development on coastal bluffs and beaches. (6.4.3)
- Revise the time horizon to use to evaluate sea level rise and the expected design life of development, after which such development is expected to be removed, replaced or redeveloped. The time horizon for residential or commercial structures would be 75 years and for critical structures or facilities the time horizon would be 100 years. (6.4.4)

- Significantly expand the language in the notice of geologic/coastal hazards required to be recorded on the property deed, including but not limited to acceptance of risk, waiver of any liability claim against the County, indemnification of the County, future occupancy of the structure may be prohibited, and the structure may be required to be removed or relocated in the future. (6.4.9)
- Acknowledge that applicants may apply for an exception to the requirements of this section and that such exceptions would be subject to a takings analysis. (6.4.10)
- Within the urban and rural services line where coastal protection structures are common allow the effect of an existing coastal protection structure to be considered when calculating coastal erosion rates consistent with existing practice county wide. However, in the rural areas of the coast, where coastal protection structures are rare, do not allow the effect of such a structure in the analysis of the coastal erosion rate. (6.4.11)
- Within the Urban and Rural Services Line require evaluation of an existing coastal protection structure that protects structures that are proposed for redevelopment and require improvements to the coastal protection structure utilizing the principle of nexus and proportionality. (6.4.11)
- Current policy allows in kind reconstruction of structures severely damaged by coastal hazards if the hazard can be mitigated to provide 100-year site stability. This policy would be modified to require such reconstruction to meet all applicable LCP requirements subject to the takings analysis when evaluating any request for an exception. (6.4.13)
- For reconstruction of a structure in a coastal hazard area that is severely damaged by other than coastal hazards (fire) the proposed policy would encourage relocation of the structure compared to the existing policy that allows in kind reconstruction regardless of the location of the existing structure. (6.4.13)
- New policies addressing development in areas of dunes and rocky shorelines. (6.4.18 and 6.4.19)
- Add exceptions for publicly owned facilities on the coastal bluff such as stairways and public access facilities, and lifeguard facilities. (6.4.22)
- Encourage replacement of existing coastal protection structures with modern structures that reduce impacts on coastal resources such as public access and recreation, visual and ecological resources. (6.4.25)
- Require the payment of mitigation fees to be used by the County Parks Department to make public access and recreation improvements to compensate for the impacts to public access and recreation caused by coastal protection structures. (6.4.25)

- Add policies addressing swimming pools and accessory structures. Pools must meet the geologic setback and be double lined with leak detection. Accessory structures do not qualify for a coastal protection structure. (6.4.30 and 6.4.31)
- A series of new policies addressing conditions under which a structure would have to be removed or relocated due to coastal hazards. (6.4.32 – 6.4.36)
- A policy that encourages a more comprehensive modern approach to coastal protection, rather than property-by-property measures. The policy would encourage the County to seek grant funds to develop one or more shoreline management plans to guide these efforts. (6.4.37)

Current projections of sea level rise are bracketed by a low and a high range which reflects uncertainty about what will happen in the future. The General Plan amendment addressing this specifies that a reasonably foreseeable amount of sea level rise that is within the accepted range be used in project analysis (Policy 6.4.3). 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, policy 6.4.3 would allow for adjustment of the amount of sea level rise to use in project analysis based on future best available science. A future adjustment would be accomplished by a GP/LCP amendment. 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.

Adding future sea level rise to the calculation of the bluff setback would in some cases 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.

Existing policy establishes for all projects a time horizon of 100 years to evaluate coastal bluff erosion rates for purposes of determining the required coastal bluff setback. A proposed policy would change this to 100 years for critical structures and facilities and 75 years for commercial and residential structures (6.4.4). The reason for the change is to reduce the life expectancy of structures without significantly reducing the resulting coastal bluff setback. The CCC in their guidance document suggests that 75 or 100 years is an appropriate time horizon to use and many coastal jurisdictions use the 75-year time horizon. The proposed new time horizon remains within the range recommended by the CCC, and new policy language makes clear that structures in existence beyond their expected life would be expected to be removed, or redeveloped

Recognizing that future sea level rise raises the level of risk to development on coastal bluffs and beaches, new policy 6.4.9 would modify the Declaration of Geologic Hazards that is currently required to be recorded on property deeds to include additional language. Property owners would continue to be required to acknowledge the hazard and accept the risk of developing in a hazardous area. New language would require the owners to waive any claims of liability against the County, indemnify the County against claims, take responsibility for future costs of abatement or future removal of buildings. Additional language could be added to the acknowledgement depending on the situation, including but not limited to acknowledging the following: future flood insurance program changes, the potential for a future assessment district to abate geologic hazards, the potential cut off of public services to the site due to coastal hazards, prohibitions on future occupancy of the structure, future migration of the boundary of public trust lands (mean high tide), and the potential future requirement to remove or relocate the structure.

New policy 6.4.10 acknowledges there are situations where allowing a reduction to the required setback or other exception to allow some minimum economic use of the parcel is appropriate and provided for in takings law. The new policy does not change existing takings law that currently applies to any property in the County but makes clear the general requirements of the law and establishes that no reduction of the minimum 25-foot setback is allowed. An application for an exception would trigger reevaluation of 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. 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, but the policy would trigger consideration of reductions of front and side yard setbacks, for example, in such cases.

Development on coastal bluffs in the urban areas of the County currently occurs in a variety of configurations, with varying bluff setbacks and coastal bluff protection structures. 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 structures on coastal resources, and, in some cases, the ongoing benefits of continuing to protect existing development, public access, roads, and infrastructure. Future sea level rise will put additional stress on existing coastal and bluff protection structures and increase rates of coastal bluff and beach erosion. Proposed policy amendments address this issue by establishing a connection between the protection structure and the development it is protecting (Policy 6.4.11). Development activities, as defined in the General Plan and Geologic Hazards Ordinance, would trigger re-evaluation of the protection structure. This is intended to provide clear policy direction linking the protection structure to the structure it is protecting. The evaluation would consider the impacts of the protection structure on coastal resources, such as restricted access or visual degradation, and 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 existing impacts on coastal resources and would help mitigate conditions of deteriorating walls and other structures from becoming eyesores and hazards on the beach over time if they are not able to be maintained and upgraded.

If a structure on a coastal bluff is severely damaged because of coastal hazards, current policy 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 of such structures shall meet all applicable LCP policies and regulations unless an exception, subject to the takings analysis in policy 6.4.10, is approved (6.4.13). 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 75 or 100-year setback. 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 be rebuilt but policy 6.4.13 encourages relocation of such structures.

Existing policy requires mitigation of impacts of coastal protection structures but does not specify how. The impacts of coastal protection structures are difficult to mitigate because they are highly visible and take up beach and shoreline area that otherwise would be available to beach and shoreline visitors. The CCC has developed a methodology to calculate the impact on sand supply and a new policy is proposed to require this calculation and collection of the resultant mitigation fee on development projects. The fees would be used by the County Parks Department to make public access and recreation improvements to compensate for the impacts to public access and recreation caused by coastal protection structures. (6.4.25).

In addition, new policies address situations where a structure or site becomes unsafe, is threatened by erosion, or becomes a repetitive loss property (Policies 6.2.32 through 6.4.36)

Lastly, a new policy would provide the basis for seeking grant funding to develop a future shoreline management plan(s) (6.4.37). Several proposed new programs describe the shoreline management plan(s) concept to study the alternative approach of comprehensive management of sections of the coast containing multiple properties rather than the current practice of evaluating individual properties as part of coastal development permit applications.

Proposed Amendments to GP/LCP Section 6.3 Erosion

The existing Section 6.3 Erosion would be renamed Section 6.5 Grading and Erosion Hazards. 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. The section is also revised to clarify that requests for exceptions are called Exception Permits and Winter Grading Permits. In addition, the changes clarify the thresholds for ministerial and discretionary grading permits, agricultural grading permits, and specialized agricultural grading which would qualify for a regular grading permit.

Proposed Amendments to GP/LCP Section 6.4 Flood Hazards

The existing Section 6.4 Flood Hazard would be renamed Section 6.6. 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

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 happen in the future. A reasonably foreseeable amount of sea level rise within the accepted range would be used in project analysis. The proposed amount is three feet 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 SCCC Chapter 16.10 Geologic Hazards. The proposed amount is 2 feet, which would increase levels of flood protection.

Proposed Amendments to GP/LCP Section 6.5, Fire Hazards

The existing Section 6.5 Fire Hazards would be renamed Section 6.7.

- Background information is added to the introduction. 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.
- The policies on Access Standards 6.5.4 and Conditions for Project Approval 6.5.6 are amended to be consistent with current standards in the State and local fire codes.
- 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).

Fire Hazard policies would be amended for consistency with State law, the County Fire Code (County Code Section 7.92), and local fire district ordinances. Although this represents a higher level of detail than is typical for a GP/LCP the benefit is it provides a comprehensive list of fire hazard requirements more accessible to the public. More information about specific standards is included in the County Fire Code and local fire district ordinances, but the GP/LCP would provide the basic information needed on a local level to begin planning a project. Applicants are encouraged to contact the local fire district for consultation regarding specific requirements for their project. The County Fire Department and local fire districts periodically update the County Fire Code and local fire district ordinances to incorporate changes in legislation. This occurs on a regular triennial cycles and any changes may also trigger a future amendment of the General Plan. The proposed amendments 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.

Proposed General Plan amendments include policies intended to address local concerns regarding establishment and maintenance of defensible space and protection of the environment (Policies 6.5.2 and 6.5.3) 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.

Amendments to GP/LCP Section 6.8

Relocate the Air Quality section from Chapter 5 Open Space and Conservation Element Section 5.18 to the Public Safety Element Section 6.8. Rename existing Sections 6.6 Hazardous and Toxic Materials, 6.7 Hazardous Waste Management, and 6.8 Electric and Magnetic Field Exposure Hazards to 6.9, 6.10, and 6.11, respectively. Location of the Air Quality section within the Public Safety Element reflects importance of air quality and greenhouse gas emissions as related to climate change, as well as public health and safety impacts on the population caused by air pollution.

Proposed Amendments to SCCC Chapter 16.01 Procedures for Compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines

The amendment is proposed to replace the County Environmental Review Guidelines, published in 1990, with the current version of the State CEQA Guidelines that are periodically updated by the State in response to changes in State law. The County Environmental Review Guidelines were consistent with the State CEQA Guidelines when they were adopted in 1990 by duplicating relevant sections of the State Guidelines and including a brief section with local procedures not addressed by the State Guidelines. The State Guidelines have been updated several times since 1990, but the County Guidelines have not and are now inconsistent with the State Guidelines. The proposed amendment would resolve the issue for the future by adopting the most current version of the State CEQA Guidelines and converting the section on local procedures to Administrative Practice Guidelines issued by the Planning Director.

Proposed Amendments to SCCC Chapter 16.10 Geologic Hazards

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. The last amendment of the Geologic Hazards Ordinance occurred in 1999.

Proposed SCCC Chapter 16.13 Floodplain Regulations

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 Federal Emergency Management Agency (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 proposed ordinance is

based on the model ordinance recommended by the Department of Water Resources and FEMA with language added to make it applicable in Santa Cruz County.

Proposed Amendments to SCCC Chapter 16.20 Grading Regulations

The Grading Regulations would be amended to include an updated version of access standards consistent with State law, the County Fire Code, and local fire district ordinances. The County Fire Department and local fire districts periodically update the County Fire Code (County Code Chapter 7.92) and local fire district ordinances to incorporate changes in legislation. This occurs on a regular triennial cycles and would include any necessary updates to the Fire Code, Grading Regulations or GP/LCP Section 6.7 Fire Hazards. Including the fire hazard requirements regarding access standards and other conditions of approval in the GP/LCP and the Grading Regulations the requirements become more accessible to the public for planning purpose.

Proposed Amendments to SCCC Chapter 16.22 Erosion Control

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. In addition, proposed amendments would remove and replace the term *approvals* to *permits*. The term *variance* would be changed to *exception* because existing findings language in the ordinance would be better described as an exception. Variance is a legal term that triggers a different set of findings.

B. <u>New Noise Element and Amendment of SCCC Chapter 8.3 Noise</u>

The existing Noise Element in GP/LCP Section 6.9 would be relocated to a New GP/LCP Chapter 9 Noise. The new Noise Element would include relevant information about noise in the introduction and describe the County's approach to noise control. The updates and amendments of the Noise Element policies would ensure consistency with State General Plan Guidelines. Existing GP/LCP Section 6.9 includes standards in Figures 6-1 and 6-2 and the amendments would retain both Figures as new Table 9-2 and Table 9-3. The new Noise Element would also include new noise contour maps to facilitate compliance with building code sound insulation standards for new development.

The new Santa Cruz County Code 13.15 Noise Planning regulations comprehensively address land use planning, development permitting, airport noise, and enforcement. Existing county Code provisions addressing offensive noise are maintained in Chapter 8.3 Noise. The proposed amendments would implement policies of the General Plan Noise Element and provide clear regulatory and enforcement standards.

C. Update and Amendment of Airport Land Use Compatibility Policies Consistent with State Handbook

Add a new GP/LCP Section 2.25 Airport Land Use Compatibility and relocate related policies to the new section. Policies addressing air travel would be relocated from the Circulation Element Sections 3.18 and 3.19 to the new section. Update and amendment of policies to ensure consistency with the California Airport Land Use Planning Handbook published by the State of California Department of Transportation, Division of Aeronautics, and other applicable state and federal regulations. Proposed policies addressing airport noise in the new Section 2.25 overlap with policies in the proposed Noise Element and are included in both sections. The updates and amendments represent a significant expansion of airport land use compatibility policies compared to existing requirements and address the areas of safety, noise, overflight, and airspace obstruction consistent with the Handbook. Santa Cruz County is required to include all applicable federal regulations and the Handbook's height, land use, noise, safety, and density criteria as part of its General Plan.

Santa Cruz County Code Chapter 13.12 would be amended to replace the current Airport Approach Zones regulations with a new Airport Combining Zone District, including an amended Zoning Map to rezone properties near Watsonville Municipal Airport to the Airport Combining Zone District, and related regulations to implement Airport Land Use Compatibility policies. The ordinance would include detailed requirements for each safety zone, standards for airspace protection from obstructions or other hazards to flight, and a requirement that property owners within two miles of the airport acknowledge and accept the impacts that may occur due to overflights.

Along with relocating the air travel policies from the Circulation Element to the Land Use Element, another minor amendment to the Circulation Element is included at this time and is described in this section. Circulation Element Section 3.7 Rail Facilities would be amended as requested by the State Public Utilities Commission during review of the Housing Element Update in 2015 to add a policy addressing rail corridor safety. Other updates to the section would include specific reference to freight, the names of the rail lines in the County, and support for multi-purpose use of the rail corridor.

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 and Beaches: Development that occurs on coastal bluffs, including coastal protection structures, has the potential to degrade visual resources along the coast. In addition, future sea level rise increases the threat to structures along the coast creating the potential for degradation of visual resources from damaged structures. One of the overall goals of the amendments is to evaluate sites using future sea level rise projections and establish a set of policies that anticipates an increased amount damage to structures along the coast from more frequent and more intense storms with greater wave heights.

Within the Urban and Rural Service Lines the proposed amendments would not change the County's existing practice of evaluating projects on coastal bluffs based on existing site conditions and therefore would not increase the potential for any currently unbuildable property to become buildable because of the amendments. In the rural areas of the County's coastline the proposed policy amendment would change this existing practice by requiring the evaluation of projects on coastal bluffs or beaches to ignore the effect of any existing coastal protection structure. This will have the effect of increasing the setback of a structure on a coastal bluff and therefore reduce impacts on visual resources.

The proposed amendment would reduce the time horizon for calculation of the setback for a residential or commercial structure from 100 years to 75 years which remains consistent with guidance from the California Coastal Commission therefore the impact of this change is determined to be less than significant.

One of the overall goals of the proposed amendments to the Public Safety Element coastal bluffs and beaches policies is to improve visual quality on coastal bluffs and beaches through encouraging, and in some cased requiring, replacement of existing coastal protection structures with modern structures that reduce impacts on coastal resources. For example, if older, existing retaining walls must be repaired 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.

The proposed policy amendments would encourage, and in some cases require, greater setbacks for structures that are voluntarily remodeled or repaired due to damage from coastal hazards or other event such as a fire.

The proposed amendments also include a new requirement for payment of a mitigation fee that would be used by the County Parks Department to improve coastal access and recreation facilities along the coast and improve the ability of the public to experience the visual resources along the coast.

The proposed policy amendments would accommodate development on coastal bluffs and beaches but would not result in any structures getting significantly closer to the coastal bluff, and in some cases, result in greater setbacks between structures and coastal bluffs than existing policies. This minimizes visibility of buildings from the beach.

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 because 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 will not change because of these amendments.

The proposed amendments include a series of policies intended to prepare for a future of increased threats and actual damage to existing structures on the coast. The existing requirements for a deed recordation acknowledging coastal hazards would be expanded with additional language addressing responsibility, liability, indemnification, and potential future relocation or removal of the structure. The proposed amendments include requirements for a coastal hazard investigation of a threatened or damaged structure and preparation of relocation or removal plans. The proposed amendments also include a policy encouraging the County to help develop one or more shoreline management plans to address certain areas of the coast in a more comprehensive manner. This might mean, for example, a long term plan for replacement of rip rap coastal protection structures that span multiple properties with vertical walls that would remove rip rap from the beach, expand the beach area, and provide an improved visual environment.

Fire Hazard Policy: Defensible space standards involve strategic vegetation modification around structures to reduce the spread of fire and provide firefighter access around structures. Defensible space does not mean clearance of all vegetation or clearance down to bare soil. The proposed amendments to the Public Safety Element fire hazard policies would

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

reflect existing State law that is already codified in the SCCC 7.92 Fire Code. The proposed amendments do not change any existing policies or standards that protect public views. Projects to create defensible space would occur near existing structures, therefore, a less than significant impact on scenic resources is anticipated.

Erosion Hazard: The proposed amendments to the Public Safety Element erosion hazard policies and the proposed amendments to SCCC Chapter 16.22 Erosion would reduce the amount of land clearing that triggers a requirement for a land clearing permit providing greater County oversight of these projects and increasing protection of scenic resources through the permit process and conditions of approval that can mitigate any impacts. Lastly, the proposed amendments to the GP/LCP implement regulations that are already in place in State law and the County of Santa Cruz Fre Code.

Airport Land Use: The amendments to the Land Use Element regarding airport land use compatibility policy and the amendments to SCCC Chapter 13.12 Airport Combining Zone District would codify existing State law and would therefore have no effect on scenic vistas scenic resources, visual character of the County, or create a new source of light or glare compared to baseline conditions. The amendment reflect existing regulations addressing height of structures and vegetation near the airport and would therefore have no effect on these visual resources.

Environmental Review: The proposed amendments to SCCC Chapter 16.01 would continue to align the County's environment review procedures with the State CEQA Guidelines and would not change local administrative practices to implement CEQA in the County's land use permit process. There would be no effect on a scenic vista, scenic resources, visual character of the County, or create a new source of light or glare.

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

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

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 project would be considered during the normal permit process for that project.

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 because 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

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

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 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. Therefore, no impact is anticipated.

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.

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

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 Control District (MBUAPCD). The proposed amendments would relocate the air quality policies from the Conservation and Open Space Element to the Public Safety in recognition of the potential health hazards of poor air quality. The Public Safety Element is a more appropriate location for air quality policies. Minor text amendments are made to the policies for consistency with air quality threshold established by the MBUAPCD without changing any existing standard. Therefore, no impact is anticipated.

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. As discussed in response C1 no impact is anticipated.

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. As discussed in response C1 no impact is anticipated.

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

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

***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 because 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 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 some changes to the standards for access and development. The amended policies would incorporate the 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 consider 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

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

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 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.

The proposed amendments to the Public Safety Element erosion hazard policies and the proposed amendments to SCCC Chapter 16.22 Erosion would reduce the amount of land clearing that triggers a requirement for a land clearing permit providing greater County oversight of these projects and increasing protection of biological resources through the permit process and conditions of approval that can mitigate any impacts.

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, 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 response D1. 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 response D1. There would be no impacts to wetlands.

4.	*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife*	☐	☐	☐	☒

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

corridors, or impede the use of native wildlife nursery sites?

Discussion: See discussion in response D1. 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. No impact is anticipated.

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 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. No impact is anticipated.

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 demolition or physical

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

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 cemeteries?*	☐	☐	☐	☒

***Discussion*:** The project is a package of General Plan/LCP policy amendments and ordinance amendments, and as such 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.

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

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?	☐	☐	☐	☒
	C. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
	D. Landslides?	☐	☐	☐	☒

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

In addition to incorporating the GP/LCP Public Safety Element Coastal Bluffs and Beaches policy amendments into the SCCC Chapter 16.10 Geologic Hazards ordinance, and creation of a separate ordinance for floodplain regulation, 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 proposed GP/LCP policies or County Code amendments would allow development where it would otherwise not be allowed under existing policies and regulations. Therefore, no impact would occur.

2.	*Be located on a geologic unit or soil that is*	☐	☐	☐	☒

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

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*:** The propose amendments that focus on coastal bluffs and beaches do address environments in which erosion and slope instability are factors. However, the proposed amendments increase elevation above storm flood levels for structures located on the beach and require more conservative technical analysis of potential for erosion and slope instability for structures located on coastal bluffs by incorporating sea level rise in the analysis. The proposed amendment would also facilitate repair, maintenance, and in some cases encourage replacement of existing coastal protection structures as required to maintain stability of existing building sites. 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 change existing policy regarding development on slopes that exceed 30%. No impact would occur.

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?*	☐	☐	☐	☒

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

***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. Development that occurs on coastal bluffs, including coastal protection structures, has the potential to result in coastal cliff erosion, however, the existing and proposed amendments to policies and ordinances are intended to provide stable building sites for development along the coast and protect coastal resources. Future sea level rise increases the threat to structures along the coast creating the potential for increased coastal bluff erosion. One of the overall goals of the amendments is to evaluate sites using future sea level rise projections and establish a set of policies that anticipates an increased amount damage to structures along the coast from more frequent and more intense storms with greater wave heights.

Within the Urban and Rural Service Lines the proposed amendments would not change the County's existing practice of evaluating projects on coastal bluffs based on existing site conditions and therefore would not increase the potential for any currently unbuildable property to become buildable because of the amendments. In the rural areas of the County's coastline the proposed policy amendment would change this existing practice by requiring the evaluation of projects on coastal bluffs or beaches to ignore the effect of any existing coastal protection structure. This will have the effect of increasing the setback of a structure on a coastal bluff and therefore reducing the potential for coastal bluff erosion caused by development of the site.

The proposed amendment would reduce the time horizon for calculation of the setback for a residential or commercial structure from 100 years to 75 years which remains consistent with guidance from the California Coastal Commission. Along with the changing the standard from 100 years to 75 years is a proposed set of new policies intended to prepare for a future of increased threats and actual damage to existing structures on the coast. In other words the policy intent is to prepare for a future that is anticipated to include an increase in coastal bluff erosion.

One of the overall goals of the proposed amendments to the Public Safety Element coastal bluffs and beaches policies is to improve the condition of existing degraded coastal protection structures through encouraging, and in some cases requiring repair and

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

maintenance, or replacement of existing coastal protection structures with modern structures that reduce impacts on coastal resources and maintain the functional capacity of the coastal protection structure to prevent coastal bluff erosion. In addition, if older, existing retaining walls must be repaired 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.

The proposed policy amendments would encourage, and in some cases require, greater setbacks for structures that are voluntarily remodeled or repaired due to damage from coastal hazards or other event such as a fire.

The proposed policy amendments would accommodate development on coastal bluffs and beaches but would not result in any structures getting significantly closer to the coastal bluff, and in some cases, result in greater setbacks between structures and coastal bluffs than existing policies. This would not create a situation that would result in coastal cliff erosion.

The proposed amendments include a series of policies intended to prepare for a future of increased threats and actual damage to existing structures on the coast. The existing requirements for a deed recordation acknowledging coastal hazards would be expanded with additional language addressing responsibility, liability, indemnification, and potential future relocation or removal of the structure. The proposed amendments include requirements for a coastal hazard investigation of a threatened or damaged structure and preparation of relocation or removal plans. The proposed amendments also include a policy encouraging the County to help develop one or more shoreline management plans to address certain areas of the coast in a more comprehensive manner. This might mean, for example, a long term plan for replacement of rip rap coastal protection structures that span multiple properties with vertical walls that would remove rip rap from the beach, expand the beach area, and provide an improved visual environment.

Overall, the proposed policy and ordinance amendments would not result in coastal bluff erosion but are intended to protect development along the coast from the hazard of coastal bluff erosion and prepare for a future of increased coastal bluff erosion caused by sea level rise. Therefore, the projects impact on coastal bluff erosion is considered less than significant.

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

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

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.

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*	☐	☐	☐	☒

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

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 package of General Plan/LCP policy amendments and ordinance amendments would bring the County's policies and codes into compliance with applicable State law regarding land use in the vicinity of the Watsonville Municipal airport. This will promote compatibility between the airport and the future land uses in the unincorporated area of the County that surround it by including height, land use, noise, safety, and density criteria. Because these criteria are requirements of existing State law no actual change in the safety hazard would occur as a result of the amendments. 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. The proposed project implements the County of Santa Cruz Local Hazard Mitigation Plan 2015-2020 (County of Santa Cruz, 2015) 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*	☐	☐	☐	☒

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

or where residences are intermixed with wildlands?

Discussion: The proposed policy amendments addressing fire hazards would be consistent 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 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 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-*	☐	☐	☐	☒

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

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 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

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

will actually happen in the future. The proposed policy 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 reflected 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 also specified in the Floodplain 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. 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

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

(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?*	☐	☐	☐	☒

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.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 proposed policy and ordinance amendments would incorporate the requirements of State law as detailed in the California Airport Land Use Planning Handbook published by the State of California Department of Transportation, Division of Aeronautics. The proposed policy amendments do not change any existing standards for noise generation or noise exposure, therefore no impact is anticipated.

The proposed policy and ordinance amendments would establish a new General Plan Chapter 9 Noise Element and relocate noise policies from the Public Safety Element to the new Noise Element and amend the policies to provide for better regulation of noise generating land uses and exposure of existing land uses to noise impacts. A new SCCC Chapter 13.15 Noise Planning would implement the new Noise Element (existing SCCC Chapter 8.3 addresses offensive noise). Existing standards for noise generation and noise exposure would not change. Provisions would be added that would provide for better sound insulation of structures and acknowledgement by property owners near the airport and rail line of potential noise and vibration impacts near these existing facilities. The proposed amendments provide for better planning and regulation of noise, therefore, no impact is anticipated.

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

Discussion: The project consists of General Plan/LCP policy and ordinance 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
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 and ordinance 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.

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 proposed package of General Plan/LCP policy amendments and ordinance amendments would bring the County's policies and codes into compliance with applicable State law regarding land use in the vicinity of the Watsonville Municipal airport. This will promote compatibility between the airport and the future land uses in the unincorporated area of the County that surround it by including height, land use, noise, safety, and density criteria. Because these criteria are requirements of existing State law no actual change in the safety hazard would occur as a result of the amendments. No impact is anticipated.

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*	☐	☐	☐	☒

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

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.

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?*	☐	☐	☐	☒

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

***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.

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.

The proposed amendments addressing coastal bluffs and beaches also include a new requirement for payment of a mitigation fee that would be used by the County Parks Department to improve coastal access and recreation facilities along the coast and improve the ability of the public to experience the recreational resources along the coast.

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,*	☐	☐	☐	☒

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

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

***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 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 proposed policy amendments would be consistent with existing State law and the County Fire Code and therefore would not result in inadequate emergency access.

6.	*Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise*	☐	☐	☐	☒

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

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?*	☐	☐	☐	☒

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*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

***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, 2015
Sea-Level Rise Policy Guidance, August 12, 2015

California Coastal Commission, 2015
Residential Adaptation Policy Guidance, Public Review Draft, March 2018

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 Department of Transportation, 2006
Transit Noise and Vibration Impact Assessment, May 2006, Federal Transit Administration

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.

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Attachment 1

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General Plan Chapter 2 Land Use	
Existing Requirements	• Enhance safety around the Watsonville Municipal Airport (3.18) • Prevent airspace obstructions (3.18.1) • Land use limitations in Runway Protection Zones and Airport Approach Zones (3.18.2 through 3.18.4) • Deed recordation acknowledging airport hazards and restrictions on airspace obstructions, radio transmissions, and lighting (3.18.5) • Restrictions on private heliports and private airports (3.19.1 and 3.19.2)
Proposed Amendments	• Add a new section to the Land Use Element Section 2.25 Airport Land Use Compatibility • Relocate and update existing policies on airport area safety and private air strips from the Circulation Element (3.18 and 3.19) to the Land Use Element (2.25) consistent with the Caltrans Division of Aeronautics California Airport Land Use Planning Handbook • Establish the Airport Influence Area within 2 miles of the boundaries of the Watsonville Municipal Airport (2.25.1) • Establish the Airport Combining Zone District (2.25.3) • Revise and rename the Safety Zones around the airport (2.25.4) • Land use limitations in the Safety Zones (2.25.5 through 2.25.10) • Address airspace obstructions (2.25.11 and 2.25.12) • Updated deed recordation language regarding overflight (2.25.13)
Reason	• As required by the Public Utilities Code 21670.1(e)(1) the County must incorporated the criteria in the Airport Land Use Planning Handbook, published by the California Department of Transportation Division of Aeronautics, and any applicable federal aviation regulations, as part of the General Plan • Existing policies are outdated and not consistent with State law • Create a set of policies and maps consistent with the Handbook • Consolidate all related policies in one section of the General Plan • The Land Use Element is the appropriate place for these policies
Environmental Evaluation	• Beneficial impact • Limits further land division around the airport • Limits airspace obstructions • Potentially increases safety around the airport • Policies are consistent with existing State law • Send IS to City of Watsonville and airport manager, Caltrans Division of Aeronautics, and Watsonville Pilots Association attorneys

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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.

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In 1990, voters adopted an environmental ordinance known as Measure C which addresses future growth and environmental protection. Approved by the voters in 1990, Ballot Measure C proclaimed the 1990's the "Decade of the Environment," and established principles and policies that guide the County to protect and restore the local environment, confronting on a local level those environmental concerns that are global in scope. This ordinance seeks to ensure that future growth and development in Santa Cruz County adheres to the natural limits and carrying capacity of the environment. The subjects addressed by Measure C are broad and varied, and policies and principles established in the ordinance cover a number of issues including offshore oil drilling, global warming and renewable energy sources, protection of the ozone layer, forest and greenbelt protection and restoration, recycling, toxic materials, endangered species and biological diversity, development of a sustainable local economy and future growth and development. These issues are addressed in the following elements of the General Plan and LCP Land Use Plan: the Land Use Element discusses policies for future growth and development in detail, the Conservation Element addresses natural resource and open space protection and the effective utilization of resources, and the Circulation Element encourages the prudent use of energy resources and improvement of air quality.

Because commute patterns can have a negative impact on traffic, energy use, and air quality, the relationship between jobs and housing is important. Although the jobs/housing balance is an issue addressed primarily in the Land Use Element, it is a problem that is covered in several other elements of the General Plan and LCP Land Use Plan. The jobs/housing balance concerns land use to the degree that sound land use planning can influence the locational decisions of business and industrial developers, government and other job providers. It concerns housing, as adequate housing opportunities for a variety of income groups must exist for potential employees. It concerns circulation, as the effects of increased commuting place a burden on existing transportation systems and reduce air quality. Residential choices are not made on the basis of commute time or distance alone, however. The heart of the jobs/housing balance issue lies in recognizing the different types of commute behavior, providing adequate housing opportunities, and encouraging a job base that supports a diversity of income levels.

GOALS

The overall goals of the Land Use Element are as follows:

- **Population and Residential Growth Goals:** To provide an organized and functional balance of urban, rural, and agricultural* land use that maintains environmental quality; enhances economic vitality; protects the public health, safety and welfare; and preserves the quality of life in the unincorporated areas of the County.

***** Agricultural land use is discussed in chapter 5: Conservation and Open Space.

- **Rural Residential Siting and Density:** To achieve patterns of rural residential development that are compatible with the physical limitations of the land, the natural and cultural resources of the County, the availability of public services, and protection of the natural environment.

- **Urban Residential Siting and Density:** To provide urban residential areas within the Urban Services Line which are protected from noise, traffic congestion, natural hazards, and other objectionable influences of nonresidential land use; and to establish a variety of residential land use categories and dwelling unit densities offering a diverse choice of housing opportunities.

- **Commercial and Industrial Siting and Development:** To provide adequate facilities to meet the shopping, service, and employment needs of County residents and area visitors in a manner compatible with adjacent residential development, availability of public facilities, protection of natural resources, and maintenance of environmental quality and high standards of urban design.

- **Public Facility/Institutional Siting and Development**: To ensure adequate present and future availability of land for both public and quasi-public facility uses including schools, hospitals, cemeteries, sanitary landfills, and water supply and sewage treatment facilities.

- **Jobs/Housing Balance:** To develop an efficient land use pattern which improves the area's jobs/housing balance and thereby reduces the total amount of vehicle miles traveled and reduces polluting emissions.

- **Village, Town, Community and Specific Plans:** To continue using village, town, community and specific plans to provide a planning framework to guide future public and private improvements in town centers and other concentrated urban and rural areas; to provide a higher level of planning detail and public involvement; and promote economic vitality and coherent community design within the unique town center areas which are community focal points for living, working, shopping, and visiting.

- **Airport Land Use Compatibility and Safety:** Require compatibility between the Watsonville Municipal Airport and future land uses in the unincorporated area of the County that surround the Airport, and comply with State of California statues, and regulations, and other laws governing land uses surrounding and within the airport, including consistency with the California Airport Land Use Compatibility Handbook which contains the mandatory criteria for safety, land use and density restrictions in the vicinity, and federal aviation regulations.

AIRPORT LAND USE COMPATIBILITY

The basic function of airport land use compatibility policy in Santa Cruz County is to promote compatibility between the Watsonville Municipal Airport and existing and future land uses in the unincorporated areas of the County that surround it, to recognize the extent to which these areas may already be developed with incompatible uses, and to comply with State of California statutes, regulations, and other laws governing land uses surrounding the airport.

The Watsonville Municipal Airport is the only public use airport in Santa Cruz County. It is located on the northwest boundary of the city of Watsonville, three miles from the city center. It is a well-constructed, general aviation facility occupying 291 acres with two runways serving single and twin-engine aircraft and helicopters, as well as turboprops and turbine-powered business jets. The Airport includes an additional 53 non-contiguous acres of land for clear-zone protection. Total Airport acreage is approximately 344 acres (Source: Watsonville Municipal Airport Master Plan 2003). Most of the area in the vicinity of the airport is located within the unincorporated area of the County. Land use in these areas must comply with the California Airport land Use Planning Handbook (Handbook).

The California State Aeronautics Act (Public Utilities Code Sections 21670 *et seq*.) addresses establishment of an airport land use commission. Santa Cruz County qualifies for an exception in the State Aeronautics Act (Section 21670.1(e)) because the County "has only one public use airport that is owned by a (single) city". Santa Cruz County need not form an airport land use commission provided the County incorporates the height, use, noise, safety, and density criteria that are compatible with airport operations as established by the Handbook published by the California Department of Transportation, Division of Aeronautics, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, as part of the general and specific plans of the County. Federal height criteria is provided in FAA Advisory Circular 70/7460-2J Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace, and Advisory Circular 150/5190-4A A Model Zoning Ordinance to Limit Height of Objects Around Airports. Incorporating criteria from the Handbook 2018 represents the first update to airport land use policies included in the original 1994 County General Plan.

The County must adopt the Handbook's criteria and incorporate the criteria as part of the General Plan. This has been interpreted to mean that the County has no discretion as to which of the Handbook's criteria should be incorporated into the General Plan (*Watsonville Pilots Association et al. v. City of Watsonville* (2010) 183 Cal.App.4th 1059). Therefore, wherever the Handbook provides a range of criteria the most restrictive criteria is adopted.

An Airport Influence Area (AIA) is the area or areas in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on land use. According to PUC Section 21675.1(b) the AIA must encompass that land within two miles of the boundaries of the Watsonville Municipal Airport as shown in Figure 2-21.

Land use compatibility concerns fall under two broad headings identified in state law: noise and safety. However, for purposes of formulating compatibility policies and criteria, further dividing these basic concerns into four functional categories is more practical. These categories are: 1) exposure to aircraft noise; 2) land use safety with respect both to people and property on the ground and the occupants of aircraft; 3) protection of airport airspace; and 4) general concerns related to aircraft overflights.

Noise impacts are defined by the exposure to noise attributable to aircraft operations. Noise policies applicable throughout the unincorporated area of the County are included in a separate chapter of the General Plan, Chapter 9. Policies

and maps related to noise exposure in the vicinity of the Watsonville Municipal Airport are included in Chapter 9, with the noise policies related to the Airport also restated in this section.

Overflight concerns are defined by the annoyances and other general concerns arising from routine aircraft flights over a community. As the term is applied herein, an overflight means any distinctly visible and audible passage of an aircraft, but not necessarily one which is directly overhead. One method of addressing this impact in the land use permitting process involves the buyer awareness measure which, rather than applying direct restrictions on the types of land uses, seeks to inform the public of potential annoyances associated with overflight. Business and Professions Code Sections 11010(a) and (b)(13) require that: property owners record an acknowledgement on the property deed, acknowledging the annoyances and inconveniences associated with proximity to airport operations, prior to issuance of any building or discretionary permit for a new or expanded building, as required by the Handbook.

Safety concerns include protecting people on the ground and in the air from accidents. There are two components to safety compatibility policies: identification of the locations where the risk of aircraft accidents is a concern, according to the Handbook, and identifying Handbook-required land use measures to address that risk.

Analysis of historical accident location patterns has been used to define a set of generic safety zones. For most airports, these generic zones will serve as the starting place for the zone delineation process. The essential remaining action is to adjust the zones to fit the circumstances of the particular airport and each runway end. The generic safety zones for runway 9-27 were then adjusted to fit the circumstances of the Watsonville Municipal Airport and each runway in accordance with criteria provided in the Handbook.

Using criteria in the Handbook, these policies designate land uses which are acceptable and which are unacceptable in various portions of the airport environs. The resulting policies are portrayed in the form of a set of compatibility criteria applicable within each of the previously defined safety zones.

Airspace Protection is defined by the protection of airspace from hazards to flight. Limiting the heights of structures to the heights established by the FAR Part 77 surfaces provides an ample margin of safety for normal aircraft operations. A variety of land uses, facilities, and structures on and near airports can create visual, electronic or wildlife hazard attractants that pose a threat to aircraft operations. These policies require an assessment of the potential for these types of hazards on and near airports, using the Handbook and applicable FAA regulations, to avoid the establishment of non-compatible land uses.

Policies require coordination with the City of Watsonville and the Airport Manager on proposed amendments to airport land use compatibility policies, and for considering applications for permits for new or expanded buildings located with the AIA.

The boundaries of the AIA, the safety compatibility zones, and the noise contours in the vicinity of the airport are based on Watsonville Municipal Airport Master Plan (AMP - 2003), on the Handbook, and on FAR Part 77 that reflects the anticipated growth of the airport. The AMP is an airport-sponsored, comprehensive planning study that describes existing conditions as well as interim and long-term development plans for the airport that will enable it to meet future aviation demand. The AMP contains an FAA-approved activity forecast and an Airport Layout Plan. It should be noted the AMP has a fundamentally distinct and separate function from these policies. These policies govern the area outside of the airport property that is within its AIA, while the AMP governs airport operations and the area under the control of the airport.

Objective 2.25 Airport Land Use Compatibility

(LCP) To minimize the public's exposure to excessive noise and safety hazards in the vicinity of the Watsonville Municipal Airport, to implement Federal and California law regarding airport safety, and to control the development and use of private air strips and heliports.

Policies

2.25.1 Airport Influence Area

The Airport Influence Area (AIA) shall be defined as the area within two miles of the boundary of the Watsonville Municipal Airport. See Figure 2-21.

2.25.2 Airport Land Use Compatibility

All land uses and development activity within the AIA shall comply with the height, use, noise, safety, and density criteria that are compatible with airport operations as established by the latest version of the CALTRANS, Division of Aeronautics, Airport Land Use Planning Handbook (Handbook), and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations.

2.25.3 Airport Combining Zone District

Establish an Airport Combining Zone District for properties located within the AIA around the Watsonville Municipal Airport.

2.25.4 Safety Zones

Establish safety zones around the Watsonville Municipal Airport runways (See Figure 2-23). Within each safety zone establish density standards for residential uses, and intensity standards for non-residential uses compliant with the Handbook. Require that new structures or additions be sited to minimize potential safety conflicts.

2.25.5 Land Use Limitation in Airport Safety Zones

New development within the airport safety zones shall comply with the uses, densities and intensities as established by the Handbook and Federal law.

2.25.6 Creation of New Parcels in Airport Safety Zones

Density and intensity of new development shall conform to the standards for each airport safety zone. Lot line adjustments shall not increase safety conflicts by placing potential building envelopes in a more hazardous area.

2.25.7 Existing Residential Parcels

The policies in this section shall not prevent construction of a main dwelling, and an accessory dwelling unit, on an existing legally created parcel, in all areas of the AIA.

2.25.8 Existing Uses

These policies shall not prevent the continuation of existing uses that do not change. Expansion of an existing use, conversion to a different use, or other development activities that require a ministerial or a discretionary permit and that create new or increased airport compatibility conflicts, shall be subject to these policies.

2.25.9 Mixed Uses

All uses in a mixed use development shall meet Airport Land Use Planning Handbook and Federal criteria for allowable uses, density, and intensity. Mixed uses involving residential and nonresidential uses shall meet intensity criteria by converting allowable residential densities into intensity levels using current "persons per household" data from the best available data from state or regional planning agencies.

2.25.10 Nonconforming Structures and Uses

Remodeling or expansion of existing nonconforming structures and uses within the AIA is subject to the Handbook, and to County policies and regulations on nonconforming structures and uses.

2.25.11 Airspace Obstructions

Limit the height of buildings, antennas, other types of structures, and trees so as not to pose a potential hazard to flight. The criteria for determining the acceptability of a project or other condition with respect to height shall be determined by: the standards set forth in Federal Aviation Regulations (FAR) Part 77, Subpart C, Objects Affecting Navigable Airspace; the United States Standard for Terminal Instrument Procedures (TERPS); and applicable airport design standards published by the FAA. Height ceilings by altitude (airspace protection surfaces) for the Watsonville Municipal Airport are depicted on Figure 2-24. Any object that penetrates one of these surfaces is, by FAA definition, deemed an obstruction. A three dimensional view of typical airspace protection surfaces is depicted in Figure 2.25.

(1) Primary surface. A surface longitudinally centered on a runway. The primary surface extends 200 feet beyond each end of each runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:
   (a) 250 feet for Runways 9 and 27
   (b) 1,000 feet for Runways 2 and 20
   (c) The area of the heliport primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(2) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 10,000 feet from the center of each end of the primary surface of Runways 2 and 20 and connecting the adjacent arcs by lines tangent to those arcs.

(3) Conical surface. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(4) Approach surface. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly as follows:
   (a) Runways 9 and 27: Width of 1,250 feet extending for a horizontal distance of 5,000 feet at a slope of 20 to 1
   (b) Runway 20: Width of 4,000 extending for a horizontal distance of 10,000 feet at a slope of 34 to 1
   (c) Runway 2: Width of 16,000 feet extending for a horizontal distance of 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1
   (d) The heliport approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for

a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1.

(5) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the Runway 2 approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline. Heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

2.25.12 Wildlife and Other Hazards to Flight

Land uses that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at the airport shall be allowed within the airport influence area only if the uses are consistent with the Handbook and FAA rules and regulations. Specific characteristics that are prohibited include:

- Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights, lasers and laser light displays);
- Lights that could be mistaken for airport lights;
- Sources of dust, steam, or smoke that may impair pilots' vision;
- Sources of steam or other emissions that cause thermal plumes or other forms of unstable air;
- Sources of electrical interference with aircraft communications or navigation; and

Any proposed use that creates an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Order 5200.5A, Waste Disposal Sites on or Near Airports, and Advisory Circular 150/5200-33, Hazardous Wildlife Attractants On or Near Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight.

2.25.13 Deed Recordation Acknowledging Aircraft Overflight

Require, as a condition to any building permit for the expansion of any structure or the creation of any new structures in the Airport Influence Area (AIA), that a statement be recorded on the deed for the parcel acknowledging the property is located in an AIA, and describing the annoyances and inconveniences associated with proximity to airport operations, such noise, vibration, or odors. Individual sensitivities to those annoyances can vary from person to person. Before purchasing the property, individuals should consider whether these annoyances are acceptable to them. Where disclosure is required, the state statutes dictate that the following statement shall be provided:

"NOTICE OF AIRPORT IN VICINITY: This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."

2.25.14 Outdoor Noise Exposure

Limit single-family residential development to no more than one dwelling and an accessory dwelling unit on an existing parcel of record where the existing or future aircraft noise exceeds 65 CNEL or L_{dn} (see Figure 2-26).

2.25.15 Mitigation for Interior Noise

Require all discretionary residential and other noise sensitive development proposed within the 60 CNEL or L_{dn} aircraft noise contour (Figure 2-26) 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. Dedication of an avigation easement for aircraft noise is required as a condition for approval of any proposed development situated within the CNEL 60 dB contour.

2.25.16 Airport Expansion

Require a development permit and environmental review for any new air strip or airport or any proposed expansion of any air strip or airport over which the County has jurisdiction, including any increase in the number of flights which may increase the noise level of surrounding areas.

2.25.17 Coordination with City of Watsonville

Encourage the City of Watsonville and its airport manager to review and update noise contour measurements for Watsonville Airport periodically as aircraft operations increase or change in nature, and to forward any new data to the County. Coordinate with the City of Watsonville and its airport manager on proposed amendments to airport land use compatibility policies, and applications for discretionary development permits for proposed projects located within the AIA.

2.25.18 Private Heliports

Prohibit private non-commercial heliport construction and helicopter use, and permit heliports and uses only in conjunction with emergency medical treatment, emergency law enforcement, commercial agricultural purposes, and other commercial purposes as may be approved by the County Board of Supervisors.

2.25.19 Private Air Strips

Allow the continued operation of an existing private air strip in rural residential and agricultural areas, provided the air strip's use is restricted to the property owner's planes and those of an occasional guest and is consistent with all use permit requirements for the private air strip.

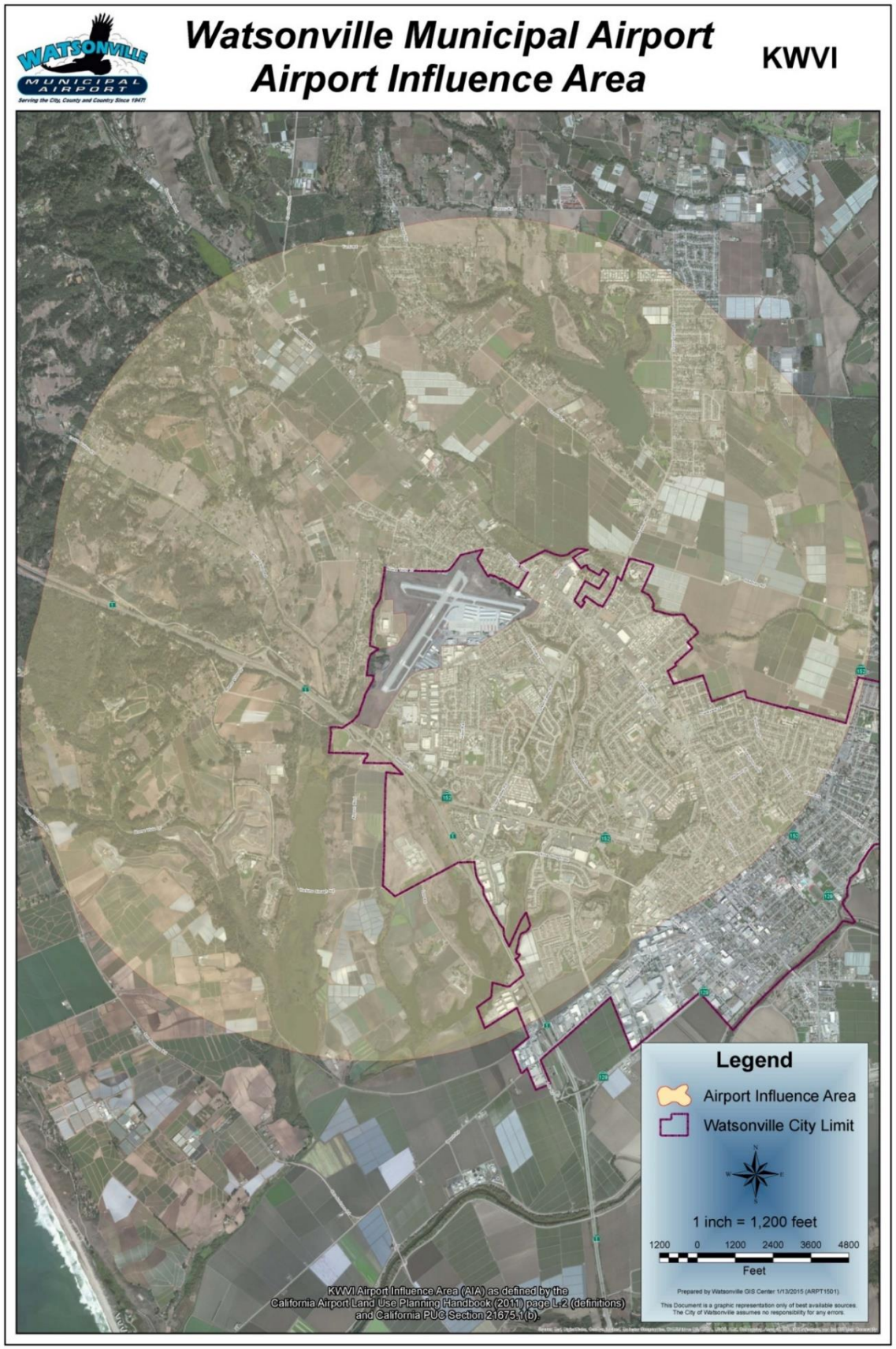
2.25.20 Use Permits for Private Air Strips

Require that a Use Permit be approved by the Board of Supervisors for any private air strip and apply the following minimum standards:

- No new air strip may intrude on agriculturally productive land. No less than 75 percent of the proposed air strip shall be on non-agriculturally productive land
- The air strips must be outside of air traffic control zones and a safe distance from existing airports (generally three miles)
- Sites for proposed air strips must be a reasonable distance from urban and suburban residential areas, and compatible with the surrounding neighborhoods.
- The total number of airplanes at any private air strip shall be limited to those owned by the property owner
- A drainage plan for the air strip must be approved by the Department of Public Works if significant drainage problems are identified
- Obtain approval by the State Department of Transportation, Division of Aeronautics (CDOA).

Programs

a. Work with the City of Watsonville, CDOA, aviation interests, and community members to ensure compatibility between the airport and surrounding neighborhoods. (Responsibility: Planning Department, Planning Commission, Board of Supervisors, City of Watsonville)


Watsonville Municipal Airport
Airport Influence Area
KWVI
Legend
Airport Influence Area
Watsonville City Limit
1 inch = 1,200 feet
1200 0 1200 2400 3600 4800
Feet
Prepared by Watsonville GIS Center 1/13/2015 (ARPT1501)
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The City of Watsonville assumes no responsibility for any errors.
KWVI Airport Influence Area (AIA) as defined by the
California Airport Land Use Planning Handbook (2011) page L-2 (definitions)
and California PUC Section 21675.1 (b).

Figure 2-21

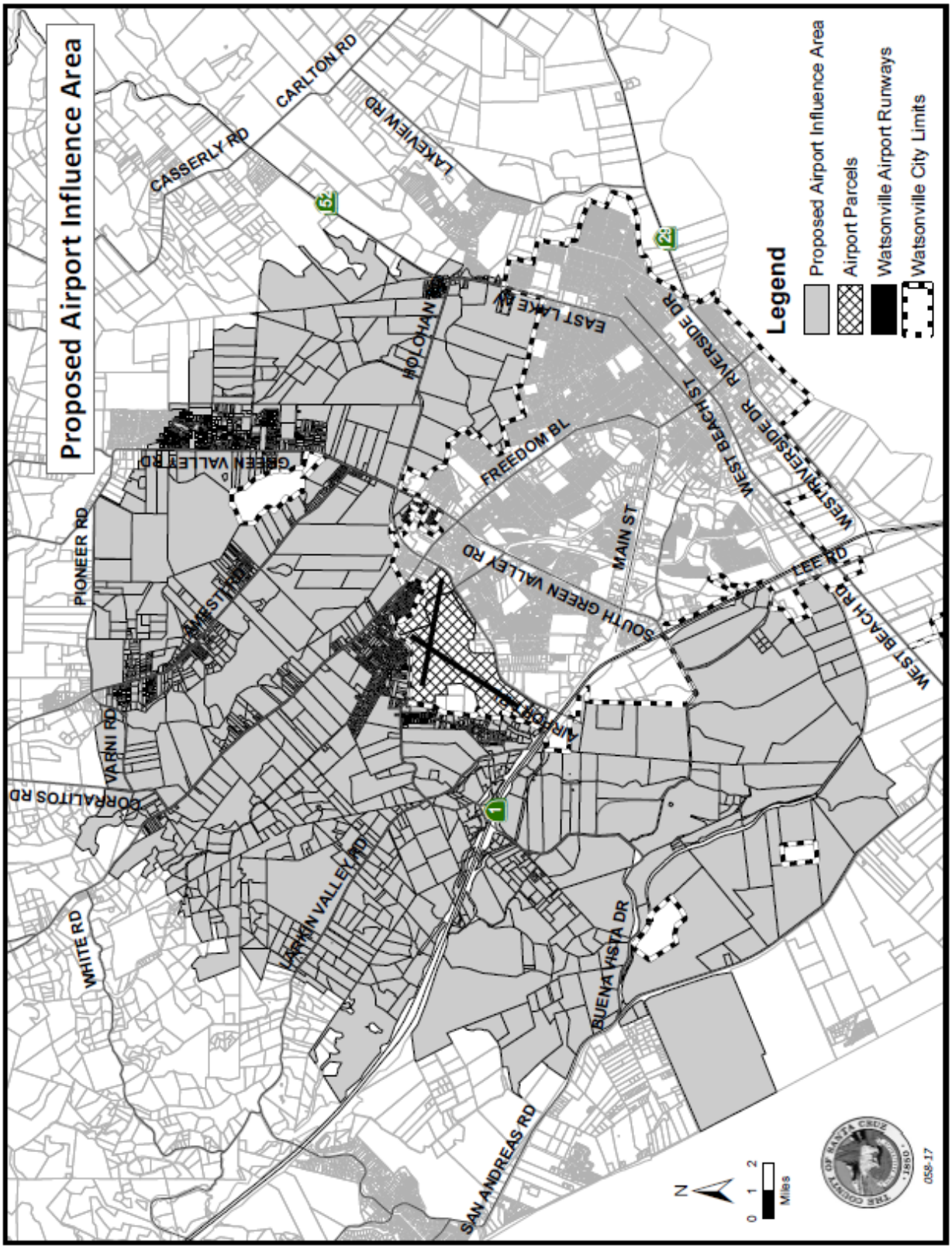
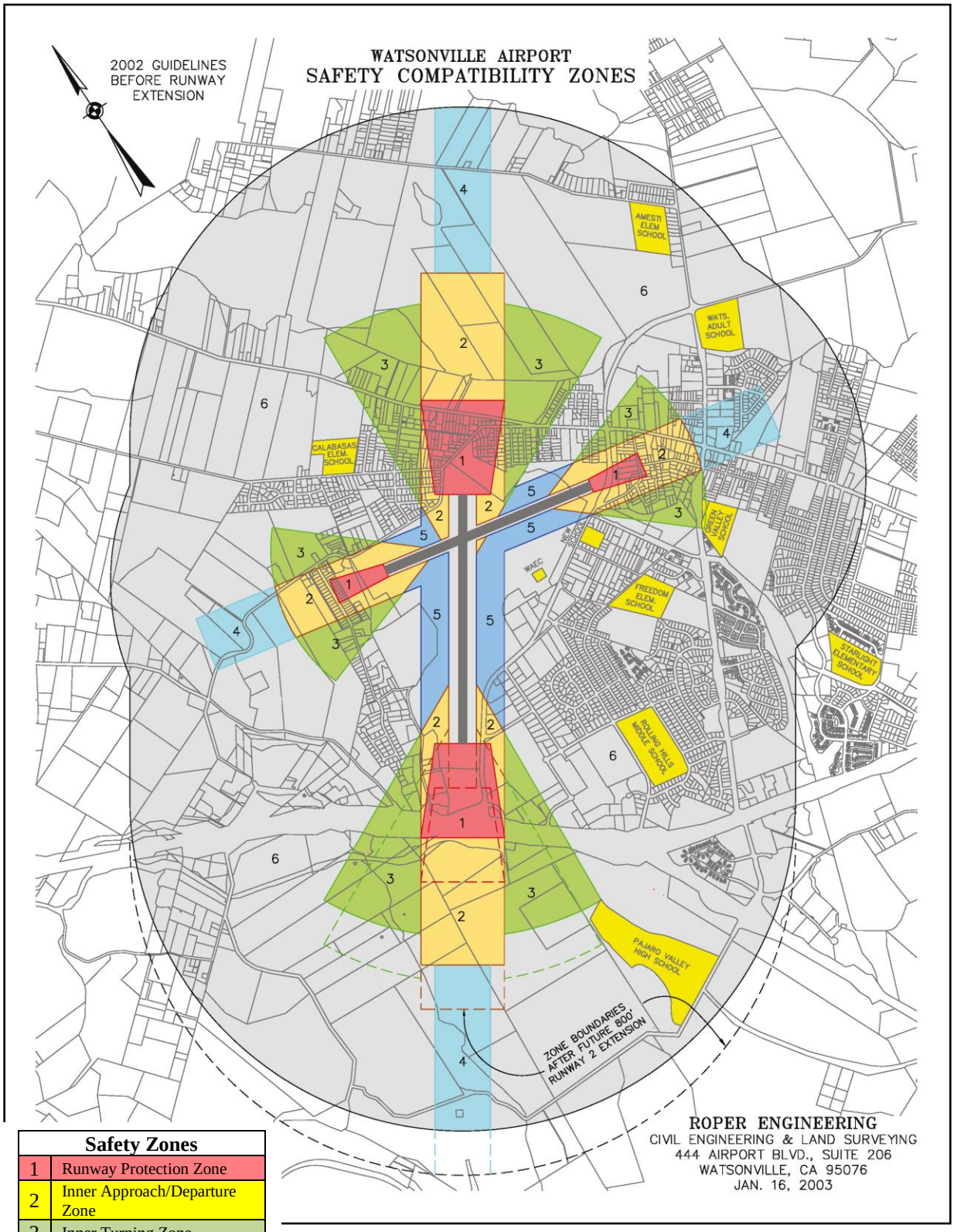

Proposed Airport Influence Area
Legend
Proposed Airport Influence Area
Airport Parcels
Watsonville Airport Runways
Watsonville City Limits
CASSERLY RD
CARLTON RD
LAKEVIEW RD
MOLOHAN
EAST LAKE AV
RIVERSIDE DR
WEST BEACH ST
WEST RIVERSIDE DR
FREEDOM BL
MAIN ST
SOUTH GREEN VALLEY RD
LEE RD
WEST BEACH RD
GREEN VALLEY RD
PIONEER RD
AMESTI RD
VARNI RD
CORRALITOS RD
AIRPORT
HARKIN VALLEY RD
WHITE RD
BUENA VISTA DR
SAN ANDREAS RD
N
0 1 2
Miles
058-17

Figure 2-22



Safety Zones	
1	Runway Protection Zone
2	Inner Approach/Departure Zone
3	Inner Turning Zone
4	Outer Approach/Departure Zone
5	Sideline Zone
6	Traffic Pattern Zone

Safety Compatibility Zones
Watsonville Municipal Airport Master Plan
Figure 2-23

Graphical Height Ceilings and Altitudes of Airspace Protection Surfaces

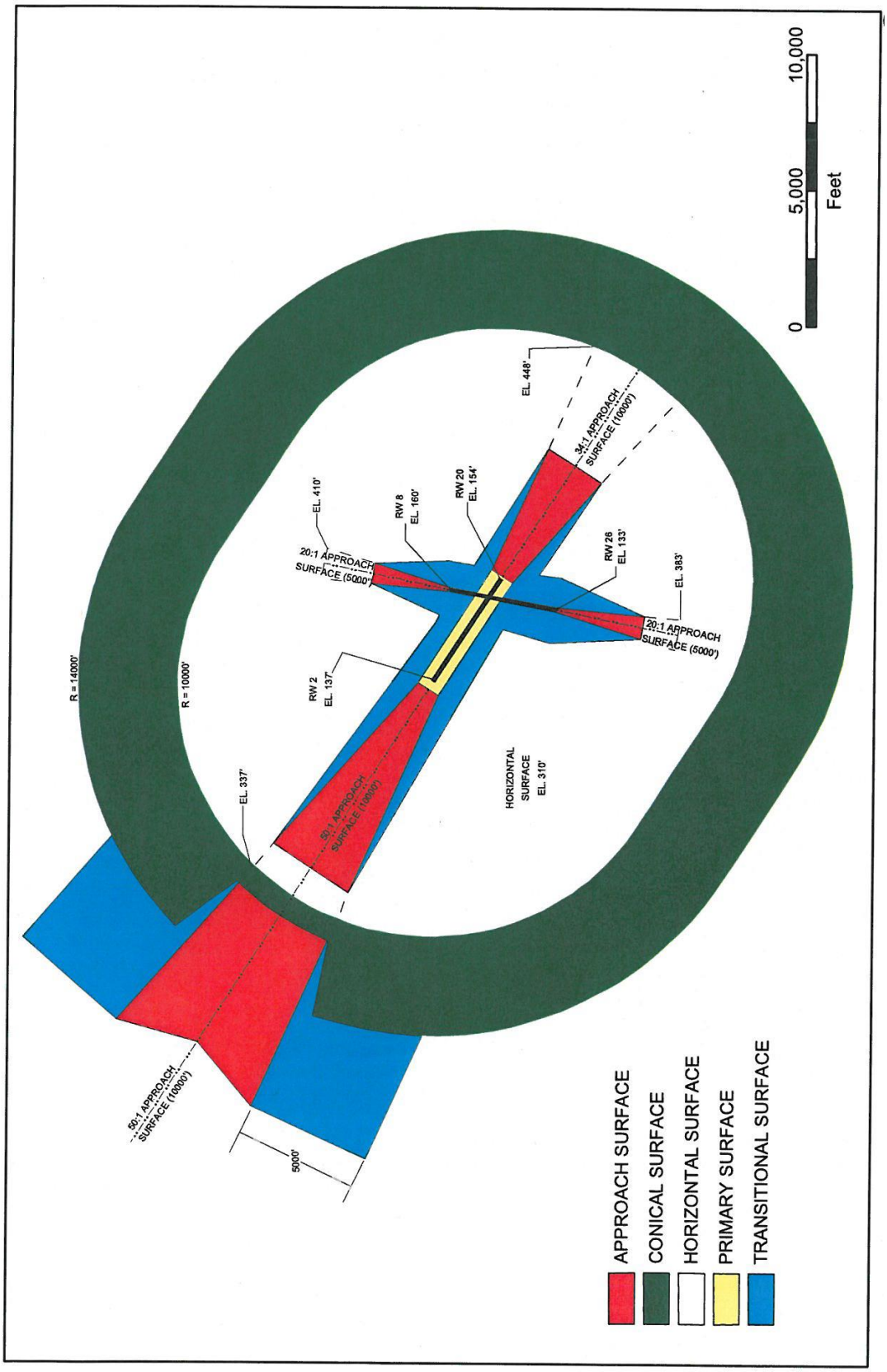


Figure 2-24

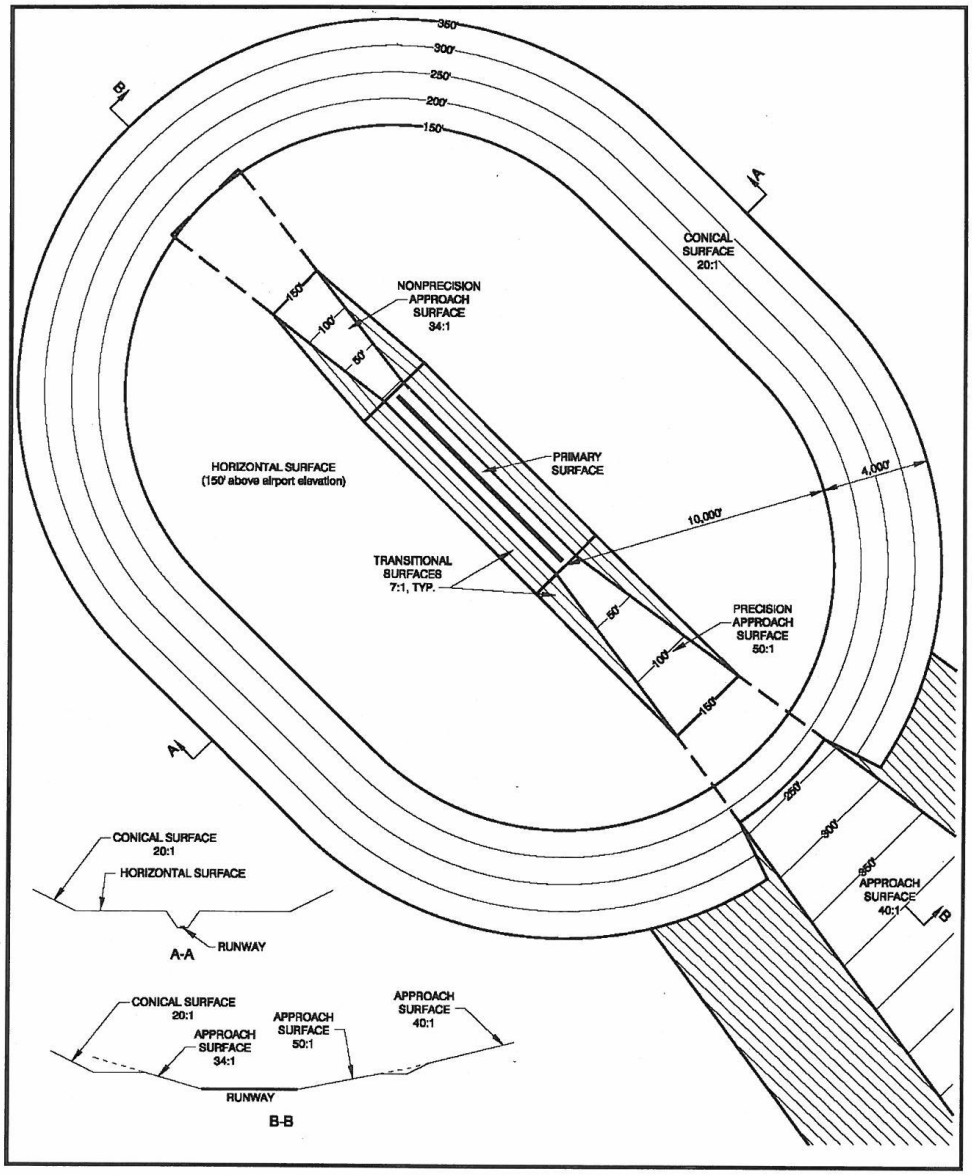


FIGURE 3C

Example of Civil Airport Airspace Protection Surfaces – FAR Part 77

Figure 2-25

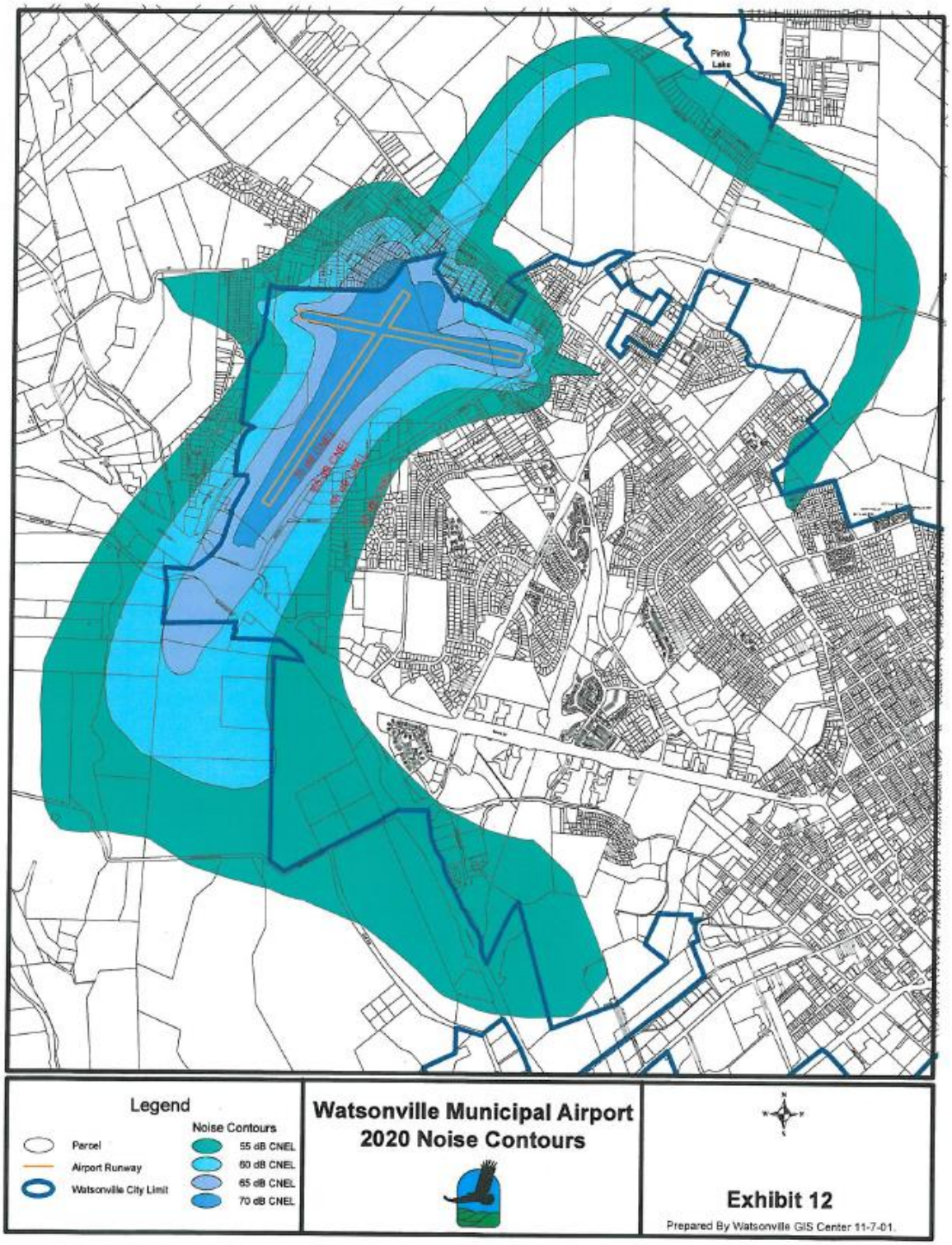

Pinto Lake
Legend
Noise Contours
Parcel
Airport Runway
Watsonville City Limit
55 dB CNEL
60 dB CNEL
65 dB CNEL
70 dB CNEL
Watsonville Municipal Airport
2020 Noise Contours
Exhibit 12
Prepared By Watsonville GIS Center 11-7-01

Figure 2-26

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Attachment 2

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General Plan Chapter 3 Circulation Element	
Existing Requirements	• Air travel policies addressing airport area safety and private air strips are currently located in the Circulation Element because of the relationship to travel • Existing rail policies support future passenger rail, intra-county commuter rail, use of the rail facilities for recreational and other purposes
Proposed Amendments	• All policies addressing airport area safety, and land use around the airport, and private air strip would be relocated to the Land Use Element • Update text of rail facilities policy to include specific reference to freight, the names of rail lines, and support for future multi-purpose use of the rail corridor • Delete text referencing rail connections to UCSC and over the Santa Cruz Mountains because such connections are not anticipated
Reason	• Locating all airport area safety policies in the Land Use Element is recommended in the Handbook and would make the policies more accessible to the public and planners • Request by the State Public Utilities Commission during review of the Housing Element Update in 2015 to add a policy addressing rail corridor safety • A future rail connection to UCSC has not been included in any plans addressing university transportation • A rail connection to UCSC is no longer anticipated • Would not preclude a future connection to UCSC by other alternative transportation mode
Environmental Evaluation	• No impact

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Chapter 3

CIRCULATION

- TRANSPORTATION SYSTEM MANAGEMENT
- PARKING
- PUBLIC/SPECIAL NEEDS TRANSIT AND PASSENGER RAIL
- BICYCLE/PEDESTRIAN
- STREETS AND HIGHWAYS
- COMMODITIES MOVEMENT
- ~~AIR TRAVEL~~
- IMPLEMENTATION

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CONTENTS

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~~INTERCITY~~ RAIL FACILITIES

Objective 3.7 Rail Facilities

To preserve and protect the Santa Cruz and Monterey Bay Railway (owned by RTC) and the Santa Cruz Big Trees & Pacific Railway rail corridors ~~existing rail facilities~~ for current seasonal recreational travel, for availability to carry freight, for possible future passenger rail transportation, and for possible future connectivity to intra-County ~~commuter use~~ rail facilities including AMTRAK and High Speed Passenger Rail, for both and ~~other~~ recreational and other transportation purposes. ~~and to provide for appropriate rail connections to the University of California, Santa Cruz.~~

Policies

3.7.1 Rail Ridership Potential

(LCP) Ensure that new development adjacent to rail lines is compatible with the General Plan and LCP Land Use Plan objective to preserve and protect existing railroad right-of-way and existing rail facilities for current seasonal ~~possible future~~ recreational travel, for availability to carry freight, for possible future passenger rail service within the County, and for possible future passenger rail transportation for intra-County commuter use.

3.7.2 Noise Protection

(LCP) Require the design of new development near existing rail lines to minimize the impact of existing and potential rail system noise and ~~maximize~~ to provide appropriate setbacks for new development.

3.7.3 Rail-Trail Planning - Santa Cruz/Watsonville

Support development of the RTC-owned rail corridor for passenger transit, recreational, and goods movement; as well as the Monterey Bay Sanctuary Scenic Trail as a bicycle/pedestrian trail, with improvements to move forward as they are determined by the RTC to be feasible, fundable, and deemed to meet current or future transportation needs. ~~Support planning for a rail/fixed guideway system for the Santa Cruz/Watsonville corridor. Protect right-of-way.~~

3.7.4 Rail Planning – Watsonville/Pajaro Junction

Support a station at Watsonville/Pajaro junction to be used by inter-region Amtrak (Pacific Coast and San Francisco Bay Area - Monterey County) future High Speed Passenger Rail, and other future commuter trains. Support extension of Metro bus service and private bus service to station.

~~**3.7.5 Rail Planning - Over the Hill**~~

~~Support the study of a rail connection over Santa Cruz Mountains.~~

3.7.5 Rail Corridor Safety

Require any future development adjacent to or near the railroad right-of-way (ROW) to be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade crossings. This includes considering pedestrian circulation patterns or destinations with respect to railroad ROW and compliance with the Americans with Disabilities Act. Mitigation measures to consider include, but are not limited to, planning for and incorporating grade separations for major thoroughfares as feasible, improvements to existing at-grade crossings to accommodate increases in traffic

volumes, and continuous vandal-resistant fencing or other appropriate barriers to limit the access of pedestrians and trespassers onto the railroad ROW.

3.7.6 Rail Services - Felton to Santa Cruz

Support enhanced rail service from Felton to Santa Cruz, including station development at the Santa Cruz Beach Boardwalk.

3.7.7 Rail Planning - Around the Hill

Support ~~the study of~~ passenger rail service between the San Francisco Bay Area and Santa Cruz via Gilroy and Watsonville/Pajaro to serve recreational and inter-regional travel travel.

Programs

a. Identify land use policies which will support future passenger rail use and prepare recommendations for General Plan and LCP Land Use Plan amendments at such time passenger rail use is approved and funded. (Responsibility: Planning Department, Regional Transportation Commission, Board of Supervisors)

b. Participate in planning and consider funding for fixed guideway/rail service in the Santa Cruz/Watsonville corridor. (Responsibility: Planning Department, Public Works, Regional Transportation Commission, SCMTD, Board of Supervisors)

c. If initiated by the RTC or other agencies, ~~P~~participate in ~~the~~a Santa Cruz to Los Gatos rail study and an around the hill recreational and commuter or passenger rail service study. (Responsibility: Planning Department, Public Works, Transportation Commission)

~~AIR TRAVEL~~

(~~Also see policies on Air Travel in section 6.9, Noise Impacts from Air Transportation.~~See policies on Air Travel in the Land Use Element, Section 2.25, Airport Land Use Compatibility)

~~PUBLIC AIRPORTS~~

~~Objective 3.18 Airport Area Safety~~

~~To enhance the safety and security of the airport environs around Watsonville Municipal Airport and to control the development and use of private air strips and heliports.~~

Policies

~~3.18.1 Prevention of Airspace Obstructions~~

~~Prevent the construction, erection, or operation of any object that obstructs the airspace required for the flight of aircraft landing or taking off, that interferes with radio ~missions next to the airport, or which emits a steady or flashing light, except as needed for airport operations.~~

~~3.18.2 Creation of New Parcels in the Runway Protection Zone Area~~

~~Prohibit the creation of any new parcels within the Runway Protection (Clear or A) Zone. This prohibition does not apply to lot line adjustments, if the total number of existing parcels does not increase and the lot line .adjustment does not increase safety conflicts by placing potential building envelopes in a more hazardous area.~~

~~3.18.3 Land Use Limitation in Runway Protection (Clear or A) Zones~~

~~Limit new development within the Runway Protection (Clear or A) Zone to residential infill on existing vacant legal parcels and remodeling, refurbishing, or expansion of existing structures. Require that new structures or additions be sited to minimize potential safety conflicts. The maximum allowable residential density in the Runway Protection Zone area shall be equivalent to Urban Low Residential (R-UL), and the construction of new accessory dwelling units is not permitted.~~

~~3.18.4 Land Use Limitation in Airport Approach (B) Zones~~

~~Allow a maximum residential density equivalent to Urban Low Residential (R-UL) within the Airport Approach (B) Zones.~~

~~3.18.5 Deed Recordation Acknowledging Airport Hazard~~

~~Require, as a condition to any building permit for the expansion of any structure or the creation of any new structures in the Runway Protection (A) or Airport Approach (B) Zones, that a statement be recorded on the deed for the parcel acknowledging the presence of an airport hazard, and describing the restriction on air space obstruction, interference with radio transmissions, and creation of lighting hazards in the area surrounding the airport.~~

Programs

a.Develop specific design policies for the airport area including special standards for Noise Impact (c) zones, focusing on noise attenuation and siting that minimizes safety conflicts. Consider safety and noise issues associated with airport operation as well as resident's ability to improve, remodel, or refurbish their property. (Responsibility Planning Department, Planning Commission, Board of Supervisors, and City of Watsonville)

b.Work with the City of Watsonville, aviation interests, and community members to ensure compatibility be the airport and surrounding neighborhoods. (Responsibility: Planning Department, Planning Commission, Board of Supervisors, City of Watsonville)

c.Amend Volume II of the County Code to include an RPZ (Runway Protection Zone) Combining District with regulations that implement the safety standards of this section. (Responsibility: Planning Department, Planning Commission, Board of Supervisors)

Airport Clear Zone Constraint Maps are on file with the Planning Department.

PRIVATE AIR STRIPS

Objective 3.19 Private Air Strips

To control the development and use of private air strips.

Policies

3.19.1 Heliports

Restrict heliport construction and helicopter use, and permit these only in conjunction with emergency medical treatment, emergency law enforcement, and commercial agricultural purposes.

3.19.2 Private Air Strips

Allow the continued operation of existing private air strips in rural residential and agricultural areas provided their use is restricted to the owner's planes and those of an occasional guest and are consistent with the following program.

Program

a. Require that Use Permits for private air strips be approved by the Board of Supervisors and apply the following minimum standards:

- New air strips may not intrude on agriculturally productive land. No less than 75 percent of the proposed air strip should be on non-agriculturally productive land.
- The air strips must be outside of air traffic control zones and a safe distance from existing airports (generally three miles).
- Sites for proposed air strips must be a reasonable distance from urban and suburban residential areas, and compatible with the surrounding neighborhoods.
- The total number of airplanes at any private air strip should be limited to those of the owner(s).
- A drainage plan for the air strip must be approved by the Department of Public Works, if significant drainage problems are identified.
- Obtain approval by the State Department of Transportation, Division of Aeronautics.

(Responsibility: Planning Department)

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Attachment 3

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General Plan Chapter 5 Conservation and Open Space Element	
Existing Requirements	• Air quality policies are in the Open Space and Conservation Element
Proposed Amendments	• Relocate air quality policies to the Public Safety Element • Remove the 25-ton threshold from policy of no net increase of non-attainment pollutants • Add a policy to implement mitigation measures to protect sensitive land uses from sources of air pollution • Add telecommuting and alternative work schedules to the list of alternatives to the automobile • Change the greenhouse reduction goal from an outdated number to a goal consistent with adopted County, State, and federal plans
Reason	• Air quality policies primarily address potential health hazards of poor air quality • It is more appropriate for these policies to be located in the Public Safety Element • The 25-ton per year threshold applies to Ozone precursors and is equivalent to the threshold of significance established by the MBUAPCD • Particulate matter (PM10) is also a nonattainment pollutant with a threshold of approximately 15 tons per year • The policy is updated to simply refer to the thresholds established by the MBUAPCD and this covers all nonattainment and other pollutants
Environmental Evaluation	• No impact • The policies are updated and relocated within the General Plan • Policies are updated to be clarify existing standards for non-attainment pollutants • Added policy language to implement mitigation measures to protect sensitive land uses

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Chapter 5

CONSERVATION AND OPEN SPACE

- BIOLOGICAL RESOURCES
- WATER RESOURCES
- HYDROLOGICAL, GEOLOGICAL AND PALEONTOLOGICAL RESOURCES
- VISUAL RESOURCES
- OPEN SPACE
- TIMBER RESOURCES
- AGRICULTURE
- MINERAL RESOURCES
- ENERGY
- ~~AIR QUALITY~~
- ARCHAEOLOGICAL AND HISTORIC RESOURCES

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~~AIR QUALITY~~

~~**This section overlaps with many policies and programs found in Chapter 3 – Circulation.**~~
See policies on Air Quality in the Safety Element, Section 6.8, Air Quality

~~Objective 5.18 Air Resources~~

~~To improve the air quality of Santa Cruz County by meeting or exceeding state and federal ambient air quality standards, protect County residents from the health hazards of air pollution, protect agriculture from air pollution induced crop losses and prevent degradation of the scenic character of the area.~~

~~Policies~~

~~5.18.1 New Development~~

~~Ensure new development projects are consistent at a minimum with the Monterey Bay Unified Air Pollution Control District Air Quality Management Plan and review such projects for potential impact on air quality.~~

~~5.18.2 Non-Attainment Pollutants~~

~~Prohibit any net increase in emissions of non-attainment pollutants or their precursors from new or modified stationary sources which emit 25 tons per year or more of such pollutants.~~

~~5.18.3 Air Quality Mitigations~~

~~Require land use projects generating high levels of air pollutants (i.e., manufacturing facilities, hazardous waste handling operations) to incorporate air quality mitigations in their design.~~

~~5.18.4 (a) Offshore Oil Development~~

~~Prohibit development, construction, or installation of any onshore facility necessary for or intended to support offshore oil or gas exploration and development unless a General Plan and Local Coastal Program amendment is approved by the voters of the County which allows such development. (See policies in sections 5.3 and 5.4.)~~ ~~*Revised by Res. 142-2014*~~

~~5.18.4 (b) Onshore Oil and Gas Development~~

~~Prohibit development, construction, installation, or use of any facility necessary for or intended to support oil or gas exploration or development from any surface location within the unincorporated area of the County of Santa Cruz, whether the subsurface portion(s) of such facility is within or outside the unincorporated area of the County of Santa Cruz, and prohibit development, construction, installation or use of any facility necessary for or intended to support oil or gas exploration or development from surface locations outside the unincorporated area of the County of Santa Cruz which may begin, pass through or terminate below the surface of land located within the unincorporated area of the County of Santa Cruz. This prohibition applies to facilities directly involved in oil and gas exploration, production, and refinement such as wells, pipelines and pumps.~~ ~~*Revised by Res. 142-2014*~~

~~5.18.5 Sensitive Land Uses~~

~~Locate air pollution sensitive land uses, including hospitals, schools and care facilities, away from major sources of air pollution such as manufacturing, extracting facilities.~~

5.18.6 Plan for Transit Use

Encourage commercial development and higher density residential development to be located in designated centers or other areas that can be easily served by transit.

5.18.7 Alternatives to the Automobile

Emphasize transit, bicycles and pedestrian modes of transportation rather than automobiles

5.18.8 Encouraging Landscaping

Maintain vegetated and forested areas, and encourage cultivation of street trees and yard trees for their contributions to improved air quality.

5.18.9 Greenhouse Gas Reduction

Implement state and federal legislation promoting the national goal of 35% reduction of carbon dioxide and other greenhouse gases by 2000.

5.18.10 Elimination of Ozone Depleting Chemicals

Support and implement local actions to achieve the most rapid possible international, national, state, and local elimination of the emission of ozone-depleting chemicals.

Programs

a. Implement the Urban Forestry Master Plan to increase the urban tree canopy. (Responsibility: Board of Supervisors, Redevelopment Agency)

b. Continue to support air quality monitoring, air pollution control strategies, and enforcement by the Monterey Bay Unified Air Pollution Control District. (Responsibility: Board of Supervisors)

c. Control aerial spraying of pesticides and fertilizers, to the degree possible, to prevent contamination of areas adjacent to sprayed areas. (Responsibility: Agricultural Commissioner)

d. Ensure that agricultural burning practices are in accordance with state and regional laws and permit open burning of debris only in instances where other disposal methods are not feasible. (Responsibility: State Department of Forestry, Regional Air Quality Control District, Agricultural Commissioner)

e. Encourage lesser polluting transportation alternatives through the construction of bikeways and the provision of public transit. (Responsibility: Board of Supervisors, Santa Cruz Metropolitan Transit District, Transportation Commission)

f. Ensure that forestry and agricultural wastes are chipped rather than burned where feasible and permissible considering disease control and other land use compatibility factors. (Responsibility: State Department of Forestry, Regional Air Quality Control District, Agricultural Commissioner)

g. Closely monitor industrial processes and require them to utilize the best available procedures to protect air quality. (Responsibility: Planning Commission, Regional Air Quality Control District)

h. Maintain and enforce a Trip Reduction Ordinance as required from the Congestion Management Plan and Air Quality Management Plan. (Responsibility: Planning Department, Planning Commission, Board of Supervisors)

~~i. Replace County-owned and encourage replacement of privately-owned fire extinguishers with models that do not use ozone-depleting compounds. (Responsibility: General Services, Board of Supervisors)~~

~~j. Encourage and support tree planting programs by governmental agencies, private business, individuals and non-profit organizations with a goal of planting at least one tree in Santa Cruz County each year for every person born in the County during such year. (Responsibility: County Administrative Office, Board of Supervisors)~~

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Attachment 4

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General Plan Chapter 6 Safety Element	
Existing Requirements	• Seismic hazards • Slope stability, including coastal bluffs and beaches • Erosion • Flood hazards • Fire hazards • Hazardous and toxic materials • Hazardous waste management • Electric and magnetic energy
Proposed Amendments	• Add explanation of requirements of state law when a Safety Element is revised (triggered by update of Housing Element) • Revision must address flood hazards, fire hazards, and climate change • Incorporate LHMP and CAS by reference and highlight key conclusions • Notice of geologic hazards would include acceptance of risk and liability release, and other acknowledgements related to future sea level rise hazards • Significant revision to section on coastal bluffs and beaches addressing sea level rise • Revise erosion policies to address regular grading, agricultural grading and grading and land clearing associated with cannabis activities • Revise flood hazard policies to address climate change and sea level rise • Revise fire hazard polices consistent with State law • Add environmental justice policies
Reason	• Government Code 65302(g) requires updates to the Safety Element addressing flood and fire hazards upon the next update of the Housing Element • Government Code 65302(g) requires updates to the Safety Element addressing climate change in conjunction with the update of the LHMP • Government Code 65302(h) requires an environmental justice element • California Coastal Commission has published guidance for coastal communities to incorporate sea level rise in local policies
Environmental Evaluation	• Less than significant impact • Generally, for existing hazards identified in the General Plan the revisions would reflect current practice and requirements of State law • Policies addressing sea level rise modify existing practices to provide more regulation of development on coastal bluffs and beaches • Includes new mitigation fees to address impacts of coast protection structures

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General Plan Chapter 6 Safety Element Section 6.4 Coastal Bluffs and Beaches	
Existing Requirements	• Use historic erosion rates in analysis of future erosion • Use 100 years to calculate future erosion and bluff setback • Same setback calculation methodology applies County wide • Record notice of geologic hazard o property deed • Exceptions are addressed in County Code • Coastal protection structures required to be maintained but often are not • Some limitation on reconstruction of damaged structures
Proposed Amendments	• Use best available science for sea level rise hazard analysis (6.4.3) • Revise expected design life of development to 75 years (6.4.4) • expand language in the notice of geologic/coastal hazards (6.4.9) • Exceptions would be subject to a takings analysis. (6.4.10) • Within urban and rural services line continue to allow the effect of an existing coastal protection structure to be considered when calculating coastal erosion rates. In rural areas do not allow the effect of such a structure in the analysis of the coastal erosion rate. (6.4.11) • Require improvements to coastal protection structures (6.4.11) • Reconstruction of structures damaged by coastal hazards must meet all applicable LCP requirements (6.4.13) • Encourage relocation of structures damaged by other than coastal hazards such as fire (6.4.13) • New policies addressing development in areas of dunes and rocky shorelines. (6.4.18 and 6.4.19) • Add exceptions for coastal access and lifeguard facilities (6.4.22) • Encourage replacement of existing coastal protection structures with modern structures that reduce impacts on coastal resources (6.4.25) • Require the payment of mitigation fees (6.4.25) • Add policies addressing swimming pools and accessory structures. (6.4.30 and 6.4.31) • new policies addressing removal or relocation of structures due to coastal hazards. (6.4.32 – 6.4.36) • A policy encouraging the County to seek grant funds to develop one or more shoreline management plans (6.4.37)
Reason	• Comply with State planning law and address climate change and resiliency • Plan for future sea level rise • Incorporate CCC guidance
Environmental Evaluation	• Less than significant impact • Reduction in time horizon in setback calculation remains consistent with CCC guidance • All other policies become stricter to reduce hazards and improve the coastal environment

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Chapter 6

PUBLIC SAFETY ELEMENT ~~AND NOISE~~

- SEISMIC HAZARDS: EARTHQUAKES, TSUNAMI, LIQUEFACTION
- CLIMATE CHANGE: RESILIENCE AND ADAPTATION
- SLOPE STABILITY, LANDSLIDES AND OTHER ADVERSE SOIL CONDITIONS
- COASTAL BLUFFS AND BEACHES
- GRADING AND EROSION
- FLOOD HAZARDS
- WILDLAND AND URBAN FIRE HAZARDS
- AIR QUALITY
- HAZARDOUS AND TOXIC MATERIALS
- HAZARDOUS WASTE MANAGEMENT
- ELECTRIC AND MAGNETIC ENERGY, AND NEW ELECTRIC FACILITIES
- ENVIRONMENTAL JUSTICE
- ~~NOISE~~

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AUTHORITY, REQUIREMENTS 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; liquefaction; 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.

Safety Elements revised after January 2009 must reference or incorporate: FEMA flood maps, information about flood hazards available from the Army Corp of Engineers, dam failure maps from the Department of Water Resources, maps of levee protection zones, identification of areas subject to inundation in the event of failure of levees or floodwalls, historical data on flooding including areas vulnerable to flooding after wildfires and areas of repetitive loss due to floods, and identify existing and planned development in flood hazard zones. Goals, policies, objectives and feasible implementation measures related to protecting the community from unreasonable risks of flooding are required to be established, with an emphasis on avoiding risks to new development, maintaining the structural and operational integrity of essential public facilities during flooding, locating new essential public facilities outside of flood hazard zone, and establishing cooperative working relationships among public agencies with responsibility for flood protection.

Safety Elements revised after January 2014 must address the risk of fire for land classified as state responsibility areas, and land classified as very high fire hazard severity zones. The Element must reference or incorporate: fire hazard severity zone maps available from the State Department of Forestry and Fire Protection, historical data about wildfire hazard areas from the US Geological Survey and local records, identification of the general location of existing and planned uses of land within very high fire hazard severity zones and in state responsibility areas, and identification of local, state and federal agencies with responsibility for fire protection, including special districts and local offices of emergency services. As with flood hazards, goals, policies, objectives and feasible implementation measures for protecting the community from unreasonable risks of fire are required to be established, for the same factors identified in the preceding paragraph.

Safety Elements revised after January 2017 must address climate change and resiliency strategies, and must include a vulnerability assessment that identifies the risks that climate changes poses to the local jurisdiction and geographic areas at risk, and include information from other agencies to assist with developing the vulnerability assessment. A set of adaptation and resilience goals, policies, objectives, and feasible strategies and implementation measures to avoid or minimize climate change impacts must be included, especially for new land uses, essential public facilities, and public infrastructure. "Natural infrastructure" that may feasibly be used in adaptation projects to increase resiliency, such as existing or restored natural features and ecosystem processes, are to be identified. Floodplain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days and reduce greenhouse gas effects are examples.

Adopted Local Hazard Mitigation Plans and adopted floodplain management ordinances that have been approved by FEMA can be attached or referenced in the General Plan to comply with certain Safety Element requirements. California Government Code Section 65302(g)(4)(D)(ii) allows local governments to

summarize and incorporate by reference a climate adaptation plan or document to meet Safety Element requirements if the material substantially complies or is substantially equivalent. Santa Cruz County approved a Climate Action Strategy in February 2013 and adopted an updated Local Hazard Mitigation Plan in June 2016, and these documents substantially comply with the State's new climate change requirements for Safety Elements. These documents are hereby incorporated by reference. A summary showing how the requirements are met is provided within the Climate Change: Resilience and Adaptation section.

In Santa Cruz County, the impacts of climate change and sea level rise are projected to accelerate hazards to coastal bluffs and beaches, and therefore this Safety Element establishes new and modified goals, policies, objectives and implementation measures for property located on coastal bluffs and for beaches and lagoons. Approaches differ for urbanized properties located within the Urban and Rural Services Lines, and the remaining rural and open space areas along the coast. Within the urban areas where development intensity is higher and existing coastal armoring is common, more extensive project analysis is required to address increased risks due to climate change, sea level rise, wave attack, and coastal flooding. In the more rural areas, however, parcels are larger, development intensity is lower, and the increased risks related to sea level rise can be adequately addressed with a lessor level of project analysis compared to projects in the urban area.

In 2016, the State of California also adopted requirements for General Plans to address environmental justice for disadvantaged communities. Disadvantaged communities are defined as low-income areas (at or below 80% of area median household income) that are disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure or environmental degradation. While the unincorporated area of Santa Cruz County does not contain communities that meet the technical definition, certain sub-area of unincorporated Santa Cruz County can at times be of similar status as a disadvantaged community, depending upon how the geographic limits are defined and upon economic circumstances of the area population as the economy and housing market changes. This Safety Element therefore incorporates environmental justice requirements and generally addresses these unique or compounded health risks for these certain sub-areas that may at times qualify as disadvantaged communities, including policies regarding promotion of civil engagement in public decision making, and prioritization of improvements and programs that address the needs of disadvantaged communities.

~~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) Other ground stationary noise sources identified by local agencies as contributing to the community noise environment."~~

SUMMARY OF GREATEST SHORT-TERM RISKS TO 2050, AND INTERMEDIATE- TO LONG-TERM RISKS TO 2100

~~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.~~

~~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).~~

The Climate Action Strategy (CAS) Vulnerability Assessment concluded that over the next 30+ years to 2050, it is expected that the highest risks to the County of Santa Cruz will come from:

- Potential water shortages due to the combination of increasing temperatures, changes in precipitation patterns increasing climatic water deficit, increased saltwater intrusion, decreased groundwater recharge, and higher demand. This has a very high probability of occurrence and also significant (high) consequences.
- Rising water table beneath the Rio Del Mar Esplanade is already an issue. As sea level continues to rise, the present problems will be exacerbated. The consequence of a continuing water table rise on commercial and residential structures and infrastructure, including the wastewater pump station is high, and the likelihood of this taking place in the immediate future is high.

- Potential increase in future coastal storm frequency and/or intensity will increase cliff retreat rates as well as cause potential damage to oceanfront property or public infrastructure. The coastlines of northern California, Oregon and Washington have experienced increasingly intense winter storms and greater wave heights over the last 25 years, both of which may be leading to more severe winter erosion (Allan and Komar, 2000). The consequence of coastal bluff erosion is high due to the extent of high-value public and private improvements (infrastructure, structures, etc.)

- Flooding in Santa Cruz County has occurred in each of the primary drainages and will continue to occur in the future given certain sets of meteorological conditions. Previous occurrences are well documented for all primary drainages with the exception of Aptos Creek, which is not gauged. In addition, low-lying areas such as Rio Del Mar Esplanade/Flats will experience more frequent flooding and inundation from sea level rise and increased wave heights. As a result, the consequence would be high in terms of structural and economic loss, with the probability of such an event occurring also being high.

- Groundwater extraction rates from the Pajaro River Valley groundwater basin have exceeded sustainable pumping rates for decades, causing groundwater levels to drop significantly, resulting in areas of saltwater intrusion and rendering some coastal groundwater wells unsuitable for use. With the rise in sea level in the coming decades, saltwater intrusion will be exacerbated. The probability of saltwater intrusion is high due to the current groundwater overdraft situation in the Pajaro Valley, and the consequence of this occurring is high due to the economic effects of fallowing large expanses of farmland to reduce groundwater pumping. However, efforts are being developed to reduce groundwater pumping and to stop saltwater intrusion. The success of these efforts will be challenged by the additional effects of climate change.

- Many of the wells located within the boundaries of the Soquel Creek Water District are also threatened with saltwater intrusion. A reduction in groundwater pumping will likely be necessary to meet the protective and target water levels necessary to avoid saltwater intrusion into the wells.

- Heat waves in Santa Cruz County are likely to become more frequent in the future due to climate change; however, due to the marine climate, temperature increases would be moderate. As a result, the consequence would be low while the probability of such an event occurring is high.

- Climate change is expected to result in additional risk of increased fire frequency, size, and severity beyond the historic range of natural wildfire variability due to increasing length of the fire season, drier fuels, and decreasing forest health. These changes are being driven by alterations in temperature and precipitation regimes (generally, warmer and drier). As a result, the consequence would be high while the probability of such an event occurring is low.

The Local Hazard Mitigation Plan concluded that over the intermediate to long term (2050 to 2100), in addition to water shortages and a rise in the water table, it is expected that other climate change related events would increase to high and very high levels of risk within the County:

- Potential water shortages, as described for the period 2010-2050, shift from a high probability of occurrence to a very high probability of occurrence as climate change progresses.

- Even though many of the areas of highest vulnerability have already been armored with riprap or seawalls, coastal cliff erosion continues to take place. The value of property and infrastructure in this area is very high, and in the long-term, with a rising sea level and increased winter wave attack, this risk is expected to increase to a very high level.

- Rise in the water table beneath the Rio Del Mar Esplanade as described for the period 2010-2050 shifts from a high probability of occurrence to a very high probability of occurrence as sea level rise progresses.

- Shoreline inundation would affect a number of developed areas along the County shoreline, particularly at the maximum projected sea level values for 2050-2100. The potential for flooding of the Rio Del Mar Esplanade and Beach Drive, for example, has a very high probability of occurring with a high consequence if it were to happen. If winter precipitation increases in the longer-term future, although it is not clear from the models that have been run to date that this will occur, the probability will increase, raising the risk of flooding.
- Flooding, as described for the period 2010-2050, shifts from a high probability of occurrence to a very high probability of occurrence as climate change progresses.
- Salt water intrusion of groundwater as described for the period 2010-2050 would continue as sea level rise progresses. The probability of saltwater intrusion increases to very high, and the consequence is very high due to the economic effects of fallowing large expanses of farmland to reduce groundwater pumping. Efforts are underway to reduce groundwater pumping to stop saltwater intrusion; however, the success of these efforts will be challenged by the additional effects of climate change.
- Heat waves as described for the period 2010-2050 shift from a high probability of occurrence to a very high probability of occurrence as climate change progresses.
- Climate change is expected to continue to contribute to increased wildfires as described for the period 2010-2050 with the probability of occurrence shifting from low to moderate as climate change progresses.

SAFETY ELEMENT GOALS REGARDING HAZARDS AND CLIMATE CHANGE

~~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.~~

The goals, objectives, policies and implementation measures of this Public Safety Element are derived from the necessity to protect the community from natural hazards, as well as from hazards produced from the built environment. Primary goals of the Safety Element include:

SE-1: To protect human life, private property and the environment.

SE-2: 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.

Santa Cruz strives to be a disaster-resistant county that can avoid, mitigate, survive, recover from, and thrive after a disaster while maintaining its unique character and way of life. County government should be able to provide critical services in the immediate aftermath of a devastating event of any kind. The people, buildings and infrastructure of Santa Cruz should be resilient to disasters. A key County objective stated in the Local Hazard Mitigation Plan (LHMP) is to have basic government services and commercial functions resume quickly after a damaging earthquake or other significant event. The LHMP has four primary goals for reducing disaster risk in Santa Cruz, which are incorporated into this Safety Element:

SE-3: Avoid or reduce the potential for loss of life, injury and economic damage to Santa Cruz residents from earthquakes, wildfires, floods, drought, tsunami, coastal erosion, landslide and dam failure.

SE-4: Increase the ability of the County government to serve the community during and after hazard events.

SE-5: Protect Santa Cruz's unique character, scenic beauty and values from being compromised by hazard events.

SE-6: Encourage mitigation activities to increase the disaster resilience of institutions, private companies and systems essential to a functioning Santa Cruz.

The projected increases in levels of fire, flood, erosion and coastal bluff hazards due to climate change require adjustments in preparation and responses, including modified approaches to regulating properties on coastal bluffs and beaches, new flood and fire hazard reduction policies, and ensuring functionality of essential public facilities and infrastructure. Table 7.1 of the County's Climate Action Strategy presents a comprehensive series of strategies designed to respond to the following CAS climate adaptation goals, which are incorporated into this Safety Element:

SE-7: Protect the unique character, scenic beauty and culture in the natural and built environment from being compromised by climate change impacts.

SE-8: Support initiatives, legislation, and actions to respond to climate change.

SE-9: Encourage and support actions that reduce risks and vulnerabilities now, while recognizing the importance of identifying, making decisions about, and preparing for impacts and risks that may develop in the future.

SE-10: Support the reduction of risks from other environmental hazards, noting the strong interrelationships and benefits between reducing risk from climate change, non-climate change-related disasters, and most other environmental hazards.

SE-11: Build resilience into all programs, policies and infrastructure.

SE-12: Encourage climate change resilience planning and actions in private companies, institutions, and systems essential to a functioning County of Santa Cruz.

SE-13: Encourage community involvement and public-private partnerships to respond to potential climate impacts, particularly for those most vulnerable.

SE-14: Ensure that the County of Santa Cruz remains a safe, healthy and attractive place with a high quality of life for its residents, businesses and visitors.

This Safety Element incorporates these goals of the LHMP and CAS in order to recognize climate change projections and to support adaptation approaches that improve the resilience of essential facilities, public infrastructure, coastal natural resources, and human communities to the impacts of climate change and sea level rise; and to ensure informed acceptance of risk and liability releases by private property owners who elect to develop or make improvements in areas subject to hazards.

Additional goals (beyond the above goals contained in the LHMP and CAS) related to climate change, regarding geologic, flooding and wave run-up hazards along the shoreline and coastal bluffs, include the following:

SE-15: Seek funding for and encourage public, special district and private activities to prepare more specific plans for how various portions of the shoreline/coastal bluff that are located within the urban/rural services lines should transition in the future, to a feasible outcome that could exist in the near- to mid-term with a design that improves impacts on coastal resources while continuing to protect important coastal infrastructure, existing development ,and other visitor-serving built and natural environments.

SE-16: Ensure that public investments along the shoreline consider projections for sea level rise, and prioritize and design projects to avoid and minimize risks to the improvements, considering the desired expected life for such public improvements.

SE-17: Seek to internalize private costs of repair, replacement and/or abatement of structures on shorelines and coastal bluffs to private property owners, while also recognizing that in some locations public agencies, special districts and private property owners should work together to achieve mutually beneficial conditions in the near- to mid-term, while recognizing that the long-term may mean that improvements must be relocated or removed.

This Safety Element is divided into sections based on the particular hazards that exist in Santa Cruz County and related topics. Information and discussion about each of these hazards or topics is presented at the start

of each section, followed by the relevant objectives, policies and implementation measures for the hazard or topic. The hazards and topics are presented in the following order:

1. Seismic and Soil Hazards: Earthquakes, Tsunami, Liquefaction
2. Climate Change: Resilience and Adaptation
3. Slope Stability, Landslides and Other Adverse Soil Conditions
4. Coastal Bluffs and Beaches
5. Grading and Erosion
6. Flood Hazards
7. Wildland and Urban Fire Hazards
8. Air Quality
9. Hazardous and Toxic Materials
10. Hazardous Waste Management
11. Electric and Magnetic Energy, and New Electrical Facilities
12. Environmental Justice

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.

SEISMIC HAZARDS: EARTHQUAKES, TSUNAMI, LIQUEFACTION

EARTHQUAKES. An earthquake is a sudden release of energy in the earth's crust. Caused by movement along fault lines, earthquakes vary in size and severity. The focus of an earthquake is found at the first point of movement along the fault line, and the epicenter is the corresponding point above the focus at the earth's surface. Damage from earthquakes varies with the local geologic conditions, the quality of construction, the energy released by the earthquake, the distance from the earthquake's focus, and the type of faulting that generates the earthquake. Ground motion is the primary cause of damage and injury during earthquakes and can result in surface rupture, liquefaction, landslides, lateral spreading, differential settlement, tsunamis, building failure and broken utility lines, leading to fire and other collateral damage. Typically, areas underlain by thick, water-saturated, unconsolidated material will experience greater shaking motion than areas underlain by firm bedrock, but in some cases relief may intensify shaking along ridge tops. Fires and structural failure are the most hazardous results of ground shaking. Most earthquake-induced fires start because of ruptured power lines and gas or electrically powered stoves and equipment, while structural failure is generally the result of age and type of building construction. Fault rupture and earthquake related Ground Cracking could occur in several locations within the County of Santa Cruz. Several fault zones cross Santa Cruz County, and movement along these faults can cause fault-related surface deformation (e.g., surface fault rupture) where the fault reaches the surface of the ground. Both the County of Santa Cruz and the State of California have identified zones where the San Andreas and other active faults have and can cause fault-related surface deformation. Within these zones it is likely that movement along these faults will damage structures, roads, utilities, and other fixed facilities. In addition to these zones, other ground cracking was observed during the Loma Prieta earthquake and the San Francisco earthquake of 1906. Many of these ground cracks can be attributed to movement or consolidation of large and moderate sized landslides while other ground cracks were most likely related to ridge spreading. Although much of the ground cracking was found near the fault zones and in the Summit area of the county, other ground cracking was found on ridge tops throughout the County of Santa Cruz.

In geologic time, Santa Cruz County was very recently the epicenter of a very significant earthquake. At 5:04 PM on October 17, 1989, a magnitude 7.1 event 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. In Santa Cruz County, 674 dwellings, 32 mobile homes and 310 businesses were destroyed in the earthquake. Replacement of un-reinforced masonry chimneys made up the majority of subsequent 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. Due to the County's susceptibility to earthquakes and other natural hazards, disaster response planning is an on-going process.

TSUNAMI. A tsunami is a series of waves generated by an impulsive disturbance in a large body of water such as an ocean or large lake. Tsunamis are produced when movement occurs on faults in the ocean floor, usually during very large earthquakes. Sudden vertical movement of the ocean or lake floor by a fault, landslide or similar movement displaces the overlying water, creating a wave that travels outward from the source. The waves can travel across oceans and maintain enough energy to damage distant shorelines. The most recent tsunami in Santa Cruz County occurred as a result of the magnitude 9.0 earthquake in Japan on March 11, 2011. In Japan nearly 16,000 deaths occurred as a result of the earthquake and tsunami, which generated a wave of water up to 113 feet in height travelling inland up to six miles, and which also caused meltdown of a nuclear energy plant. This 2011 tsunami hit the Santa Cruz Harbor with waves estimated to

be several feet, combined with swift and chaotic currents causing approximately $20 million in damage. Santa Cruz County is at risk from both local and distant source tsunamis.

LIQUEFACTION. Liquefaction is the transformation of loose, water-saturated granular materials (such as sand or silt) from a solid to a liquid state. Liquefaction commonly, but not always, leads to ground failure such as subsidence. Liquefaction potential varies significantly and site-specific analysis is needed to accurately determine liquefaction potential in earthquake prone areas.

Objective 6.1-1 Seismic Hazards: Earthquakes

(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.

Objective 6.1-2 Seismic Hazards: Tsunami

(LCP) To reduce the potential for loss of life, injury, and property damage resulting from tsunamis by: providing signage and warning systems in tsunami hazard areas to increase public awareness of hazard and actions to take in event of tsunami, publicizing evacuation routes, and designing structures as feasible to withstand tsunamis or to minimize damage that may occur due to tsunamis.

Objective 6.1-3 Seismic Hazards: Liquefaction and Subsidence

(LCP) To reduce the potential for loss of life, injury, and property damage resulting from location of improvements in areas that contain soils subject to liquefaction and subsidence by: avoiding location of critical and essential facilities in areas subject to these conditions, and adopting building codes that, for areas where development is allowable, requires site-specific analysis and adequate mitigations to be incorporated into project designs.

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/or a more complete geologic investigation report where required by the County. ~~Such~~ An assessment ~~shall~~may 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. Any Geologic Hazards Assessment or Geologic Investigation Report must be accepted by the County Geologist in order to use its findings and/or incorporate its mitigations into a proposed development project.

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 (LCP) **Site Assessment or Investigation Regarding Liquefaction Hazard**

Require site-specific hazards assessment and/or 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, and require mitigations identified by reports to be incorporated into project designs in order to meet building codes. ~~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 (LCP) **Location of New Development Away From Potentially Hazardous Areas**

Require the location and/or clustering of development away from potentially hazardous areas where feasible, in order to avoid or minimize exposure to hazards. Review, revise, and/or condition project ~~and condition~~ development permits as warranted, based on the recommendations of the site's Hazard Assessment or other technical reports.

6.1.6 (LCP) **Siting of New Water Supply Reservoirs and Small Water Retention Facilities**

Require a full engineering geologic investigation prior to the construction of new water supply reservoirs, and if an unmitigable hazard exists, deny~~relocation of~~ the proposed reservoir. Require smaller water retention facilities to be sited and engineered in a manner that will avoid or mitigate potential hazards that could arise from failure of the facilities, especially to habitable structures and public and private access roads.

6.1.7 (LCP) **Dam Safety Act**

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 and/or building/grading permit review processes.

6.1.8 (LCP) **Design Standards for New Public Facilities**

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, as well as projected hazards due to climate change and sea level rise.

6.1.9 (LCP) **Recordation of Notice of Geologic Hazards, Acceptance of Risk, and Liability Release**

As a condition of development approval and/or prior to the issuance of a building/grading permit for improvements in geologic hazard areas, r~~R~~equire 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 Geologic Hazards, Acceptance of Risk, and Liability Release in a form approved by the County. The Notice shall include information about the nature of the hazard(s) as determined by the ~~and the level of~~ geologic and/or geotechnical investigation, provide that the current and all future owners and successors in interest accept the risks to people and property, and includes a release of liability of and waiver of claims against the County of Santa Cruz for any damages or injury in connection with the permitted development. ~~conducted as a condition of development approval.~~

6.1.10 **Siting, Design and Density ~~Recommendations~~ Review of~~for~~ Proposed Development for Acceptable Risk Levels**

(LCP) Approve the final density and design of a development or building/grading proposal, and location of proposed development on a site, only as ~~if it is~~ consistent with the recommendations of the technical reports. Deny the location or design of the proposed development if it is found that the hazards on the site cannot be mitigated to within acceptable risk levels for the nature of the development, as established by industry standards and as evidenced by property owner willingness to record on title a Notice of Geologic Hazards, Acceptance of Risk, and Liability Release.

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 registered~~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 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 and of applicable provisions of the County Code. ~~*(Amended by Res. 204-2008)*~~

Programs

a. Periodically update seismic design and soil hazards design criteria and the Building and Grading ~~ordinance~~regulations, with the advice of qualified professionals and consistent with State law, as information becomes available in order to support~~aid buildings and homeowners in constructing~~ construction of safe structures in areas of seismic hazards, liquefaction hazards and other soil conditions subject to ground failure or cracking during seismic events. (Responsibility: Planning Department)

b. Continue to evaluate existing public facilities to determine whether they can maintain structural integrity during the design earthquake, and fund and carry out retrofits, retirements and/or replacements as may be needed to ensure public safety at public facilities during such earthquake events, with priority given to critical facilities. (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 Building Code 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.~~c. Target the following structures to meet California Building Code~~UBC Zone 4~~ seismic safety standards for existing buildings:

(1) ~~Buildings constructed prior to 1955;~~

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.~~d. Support seismic retrofit projects, including through priority permit processing and through special financing programs such as housing rehabilitation loans for qualified low income homeowners from State and local funding programs as may be available~~programs for residential properties~~. (Responsibility: Planning Department, Santa Cruz County Housing Authority, Board of Supervisors)

~~g.~~e. Comprehensively map the Geologic Hazard Combining Zone District to include areas having a high, moderate or uncertain surface rupture potential, as well as known areas subject to high liquefaction hazards, and make the Geologic Hazards map(s) and related technical information available to the public on the county website. ~~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, Information Services Department/GIS)

~~h.~~f. 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, Information Services Department/GIS)

~~i.~~g. Revise existing seismic and geologic hazard maps as new, reliable information becomes available. (Responsibility: Planning Department, Information Services Department/GIS)

~~j.~~h. 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, Human Services Department, Health Services Agency and Department of Public Works)

~~k.~~i. Develop public education programs to increase public awareness of seismic and geologic 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)

CLIMATE CHANGE: RESILIENCE AND ADAPTATION

Santa Cruz County approved a Climate Action Strategy CAS) in February 2013, and adopted an updated Local Hazard Mitigation Plan (LHMP) in June 2016. Materials in those documents provide substantial compliance with California Government Code requirements to address climate change, including but not limited to a vulnerability assessment, and adaptation and resilience goals, policies, objectives, and feasible strategies and implementation measures to avoid or minimize climate change impacts, especially for new land uses, essential public facilities, and public infrastructure.

The CAS Executive Summary summarizes the content of the document, including material that meets requirements for Safety Elements, as presented below.

Californians are already experiencing impacts from climate change (California Natural Resources Agency, 2009), and a wide variety of impacts are likely to be felt with increasing magnitude as the concentration of greenhouse gases (GHGs) in the atmosphere continues to rise (City of Santa Cruz, 2011). The first portion of the County's Climate Action Strategy (CAS) reports the results of the GHG emissions inventory for Santa Cruz County, proposes targets for GHG reduction, and outlines strategies and implementing actions to achieve the targets. The second portion focuses on vulnerability assessment and strategies for adapting to the types of impacts that are likely to occur in Santa Cruz County. The CAS incorporates input from the local community and non- governmental agencies that are working to mitigate and respond to climate change.

GHG emissions inventories were prepared for County government operations and for community activities for 2005 and updated for 2009. Total emissions for government operations in 2009 were approximately 34,000 metric tons of CO2 equivalent (CO2e), a decrease of 12 percent from 2005. T otal emissions for community activities were approximately 1,030,000 metric tons in 2009, a decrease of more than 50 percent from 2005. The dramatic decrease in community emissions reflects the closure of the Davenport cement plant, which accounted for approximately 90 percent of the commercial/industrial emissions in 2005. The inventories indicate that 70 percent of the community emissions in 2009 were generated by the transportation sector. A separate, simplified inventory of GHG emissions from agricultural activity was prepared for 2011. Agricultural emissions other than electricity emissions were in the range of 17,000 metric tons of CO2e. This represents, at most, two percent of GHG emissions countywide (2009 data).

State legislation requires California to reduce GHG emissions to 1990 levels by 2020. Based on the 2005 community emissions inventory, 1990 emissions levels for Santa Cruz County were estimated. Santa Cruz County has already met the target for 2020 due to the closing of the Davenport cement plant. The State has also set a long-term reduction target for 2050, which is 80 percent below 1990 levels. The CAS incorporates the two state targets and sets an interim target for 2035. A "business as usual" estimate of future emissions is used to gauge the amount of effort required to meet the reduction targets.

GHG reduction strategies are proposed for the three sectors with the highest emissions: transportation, energy, and solid waste. The amount of emissions reductions that can be expected from each strategy is estimated. Calculations indicate that the emissions targets for 2035 and 2050 can be met, but that a sustained commitment to full implementation of the strategies will be required. The largest reduction will come from state and federal standards for fuel efficiency and vehicle emissions and from the California renewable energy portfolio standard (58 percent), followed by a cleaner energy supply from Community Choice Energy (CCE) if that type of regional energy authority is formed (22 percent), energy efficiency (9 percent), transportation and land use planning (5 percent), green business (3 percent), and

electric vehicles (3 percent). The CAS finds that if a CCE is not feasible the gap may be closed with greater reductions from other strategies, including a method to provide incentives for local renewable power and energy conservation similar to what a CCE would provide. However, a feasibility study was subsequently completed which has determined that it is feasible, and a collection of local governments are pursuing formation. Priority for implementation of GHG reduction efforts will be a function of the estimated potential for emissions reduction, cost to implement, and co-benefits of efforts.

A plan for monitoring the implementation of emissions reduction is included in the CAS, which includes identifying the group with responsibility for implementation, periodic reporting, and a recommendation for updating the GHG emissions inventories every five years.

A vulnerability assessment was prepared to identify the conditions that may occur in Santa Cruz County as a result of the various components of climate change (increasing temperature, rising sea level, and shifts in the precipitation regime) and the locations, infrastructure and economic sectors that are particularly vulnerable to negative impacts.

The assessment identifies the coastal areas that are most susceptible to increased flooding, storm surge, beach and coastal bluff erosion from winter storms. Winter storm damage may become more frequent than in the past as a result of heightened sea levels persisting longer as sea level rises (Cayan et al., 2008; Cloern et al., 2011), and precipitation that is concentrated in fewer months each year (Flint, L.E., and Flint, A.L., 2012). The analysis is based on 16–66 inches (42–167 cm.) of sea level rise by 2100, as forecast by the National Academy of Sciences (National Research Council, 2012). Inundation, rising groundwater, and increased saltwater intrusion into groundwater will also affect low-lying areas. The systems that will be most affected are residential coastal property, wastewater treatment infrastructure, coastal roads and bridges, beaches, coastal and wetland ecosystems, and water supply from coastal wells. The vulnerability assessment also identifies potential effects of precipitation changes and increased temperature of between 3.6–7.2 degrees Fahrenheit (2–4 degrees Celsius) (Flint, L.E., and Flint, A.L., 2012) on water supply, wildfire, biodiversity, and public health. Particular attention is given to the significant decrease in redwood habitat that may occur, especially if the current trend of decreasing coastal fog continues (Flint, L.E., and Flint, A.L., 2012).

Tourism and agriculture, two top revenue producing and job generating sectors of the local economy, are closely tied to the climate and are therefore vulnerable to climate change. Tourism relies on beaches, coastal attractions, redwoods, and vulnerable infrastructure for access to and around the coast. Agriculture will be affected by increases in temperature, changing pest patterns, changing fog dynamics, and increased potential for both flood and drought.

A risk analysis was performed to determine which impacts from climate change present the greatest risk to people and to the natural and built environments. In the short to intermediate term (2010–2050) water shortage was identified as the largest risk. In the intermediate to long term (2050–2100) rising water table, coastal bluff erosion, and increased flooding and landslides join water shortage as greatest risks.

Climate adaptation goals are established as a guide for evaluating adaptation strategies. Specific adaptation strategies include new actions as well as acknowledgement of existing plans and programs, which such as the adopted Local Hazard Mitigation Plan (LHMP), while not explicitly about climate change, address the salient issues. Some proposed strategies emphasize avoidance of hazards while others focus on future planning efforts and specific engineering solutions to protect existing development. However, all emphasize building connections among people and among organizations to accomplish the climate adaptation goals in a framework of partnership.

It is expected that the County's Climate Action Strategy will be modified periodically as scientific research progresses, new information becomes available and new ideas and priorities are brought forward as more people become involved in responding to climate change in Santa Cruz County. Such CAS updates will not be considered to be formal amendments to the General Plan, but as updates to implementation materials, as consistent with key goals and objectives of the CAS and General Plan.

The June 2016 update of the Local Hazard Mitigation Plan (LHMP) includes a great deal of the information, assessments and mitigation strategies that required to be included in a General Plan Safety Element. The first two parts of the LHMP address the planning process used and present a Community Profile, including key transportation routes and critical infrastructure locations. The third part identifies the hazards, presents risk and vulnerability assessments, estimates hazard loss estimates for existing and planned development, and outlines mitigation goals, strategies and actions, for the following types of hazards: earthquakes and liquefaction, wildfires, floods and coastal storms, drought, tsunami, coastal erosion, dam failure, landslide, expansive soils, and climate change. The LHMP contains an extensive number of maps further illustrating hazard types, including maps of levee flood gates, fault rupture zones, liquefaction areas, earthquake intensities, critical fire hazard areas, recent fires, flood zones, repetitive loss properties, Pajaro River flood risk, water agency service areas, tsunami inundation areas, coastal erosion areas, Newell Creek dam inundation area, slides and earthflows, landslide hazard areas, and expansive soils.

The fourth part of the LHMP presents the Mitigation Strategy, and the fifth part addresses the plan maintenance process. It is expected that the County's LHMP will be updated every five years or as required by law. Such LHMP updates will not be considered to be formal amendments to the General Plan, but as updates to implementation materials, as consistent with key goals and objectives of the LHMP and General Plan.

Objective 6.2.1 Climate Change: Resilience and Adaptation

(LCP) Implement the Climate Action Strategy approved in February 2013, as well as the Local Hazard Mitigation Plan approved in June 2016, in order to increase resilience and adapt to the effects of climate change. Update the CAS and LHMP as new science and approaches are available. Updates to the CAS and LHMP shall not require amendment of the General Plan and Local Coastal Program as long as the updates are in substantial conformance with the goals of this Safety Element and those documents, and further improve hazard information, resiliency and adaptation strategies.

Objective 6.2.2 Local Hazard Mitigation Plan and Climate Action Strategy

(LCP) Comply with Government Code 65302(g)4 and incorporate by reference and implement the County's Local Hazard Mitigation Plan (LHMP) and updates approved by the Federal Emergency Management Agency (FEMA) and the Governor's Office of Emergency Services. The LHMP has been updated to address climate change adaptation consistent with the County's Climate Action Strategy (CAS) and updates. The LHMP identifies the risks that climate change poses to the County and the geographic areas at risk from climate change impacts. The LHMP creates a set of adaptation and resilience goals, policies, and objectives for the protection of the community. The LHMP creates a set of feasible implementation measures designed to minimize impacts of climate change, avoid at-risk areas, and utilize natural infrastructure where feasible to increase resiliency to climate change.

SLOPE STABILITY, LANDSLIDES AND OTHER ADVERSE SOIL CONDITIONS

LANDSLIDES. Landslides are the rapid downward movement of rock, earth, or artificial fill on a slope. Factors causing landsliding include the rock strength and orientation of elements on the slope, erosion, weathering, high rainfall, steepness of slopes, and human activities such as the removal of vegetation and inappropriate grading. Severe rainstorms in January 1982 caused multiple landslides throughout the Bay Area and especially in the Santa Cruz Mountains. One very large composite landslide along Love Creek, west of Loch Lomond Reservoir, killed ten people. This landslide was and continues to be an indicator of the potential severity of landslide activity and the need for observation and/or mitigation. Other landslides, including debris flows, destroyed homes killing several other people. In addition to damage to homes, widespread landslide damage occurred to roadways, driveways, and stream channels.

OTHER ADVERSE SOIL CONDITIONS. A variety of other adverse soil conditions result in a need for site-specific geotechnical/soils reports to ensure that appropriate specifications are incorporated into the design of proposed improvements. Expansive soils are generally clays or sedimentary rocks derived from clays, which experience volume changes as a result of moisture variation. The hazard that expansive soils create can be significant. Many of the expansive soils do not create large areas of destruction; however, they can disrupt supply lines (i.e. roads, power lines, railways, and bridges) and damage structures. The effects on structures can be dramatic if expansive soils supporting structures are allowed to become too wet or too dry. Lightly loaded one-story or two-story buildings, warehouses, residences, and pavements are especially vulnerable to damage because these structures are less able to suppress the differential heave of the swelling foundation soil than heavy, multistory structures. Patios, driveways and walkways may also crack and heave as the underlying expansive soils become wet and swell. Other adverse soil conditions can include but not be limited to areas of unconsolidated fill due to historic or improper grading, undermined slopes, roads or structures, and areas of low soil strength.

Objective 6.~~2~~3 Slope Stability, Landslides and Other Adverse Soil Conditions

(LCP) To reduce life safety hazards and property damage caused by landslides, debris flow, adverse soil conditions, and other ground movements affecting land use activities in areas of unstable geologic formations, potentially unstable slopesand adverse soil conditions ~~and coastal bluff retreat~~.

Policies

6.~~2~~3.1——Geologic Hazards Assessments, Soils/Geotechnical Report or Geologic Report for Development On and Near Slopes

(LCP) Require a geologic hazards assessment, soils/geotechnical report or geologic report ~~of all~~ for proposed development, including grading and building permits, that is potentially affected by slope instability hazards that exist on or near the site, regardless of the slope gradient on which the development itself is proposed.~~takes place.~~ Such assessment or reports ~~shall~~ may be prepared by County staff under supervision of the County Geologist, or by a registered ~~certified engineering~~ geologist or civil engineer, as required by the County and ~~may conduct this review~~ at the applicant's choice and expense. Any Geologic Hazards Assessment, Soils/ Geotechnical Report or Geologic Report must be accepted by the County Geologist in order to use its findings and/or incorporate its mitigations into a proposed development, grading or building project.

6.~~2~~3.2 Engineering Geology Report or Soils/Geotechnical Report

(LCP) Require an engineering geology report by a ~~certified engineering~~ registered geologist and/or a soils/geotechnical engineering report prepared by a qualified professional when the hazard

assessment identifies potentially unsafe geologic conditions in an area of proposed development.

6.~~2~~3.3 Conditions and Design Specifications for Development, Building and Grading Permits
(LCP) Condition development permits, and ensure design/mitigation specifications have been incorporated into building and grading plans ~~permits~~ based on the recommendations of the Hazard assessment and other technical reports.

6.~~2~~3.4 Mitigation of Geologic Hazards and Density, Design and Location Considerations
(LCP) Deny the location of a proposed development or permit for a grading or building project if it is found that geologic hazards cannot be mitigated to within acceptable risk levels for the nature of the proposed project; and approve development proposals or permits only if the project's density, design, and location reflects consideration of the degree of hazard on the site, as determined by technical information.

6.~~2~~3.5 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~~3.6 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~~3.7 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 engtineer demonstrates that such placement will not adversely affect slope stability.

6.~~2~~3.8 Limitations on Use of Wood for Private Retaining Walls~~Road Construction (deleted by Res. 81-99)~~ Due to limited lifespan of wood in contact with earth, prohibit the use of wooden retaining walls on private property for walls that are needed to establish the required access to a site and for walls that establish the required stable building area for habitable site improvements. Allow wooden retaining walls as landscape retaining walls or in other areas that do not involve primary site access or building sites, as allowed consistent with applicable building and grading regulations.

6.~~2~~3.9 Recordation of Notice of Geologic Hazards, Acceptance of Risk, and Liability Release
(LCP) As a condition of development approval and/or prior to the issuance of a building/grading permit for improvements in geologic and/or coastal hazard areas, r~~R~~equire the owner of a parcel in an area of potential geologic hazards to record on property title/deed, with the County Recorder, a Notice of Geologic Hazards, Acceptance of Risk, and Liability Release in a form approved by the County. The Notice shall include information about the nature of the hazard(s) as determined by the ~~and the level of prior~~ geologic and/or geotechnical investigation, provides that the current and all future owners and successors in interest accept the risks to people and property, and includes a release of liability of and waiver of claims against the County of Santa Cruz, and of the Coastal Commission, as relevant, for damages or injury in connection with the approved development. ~~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 or mitigate landslide conditions which threaten structures or roads, including improper or unauthorized drainage affecting county roads and/or drainage facilities through applicable Notice and Order and/or abatement processes. (Responsibility: Planning Department, Public Works Department)

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

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. Current scientific projections regarding climate change and sea level rise require that the County update policies related to coastal bluffs and beaches, and shoreline protection measures, to acknowledge and incorporate sea level rise into development standards that apply to proposed projects. Policies are needed to guide response to proposed changes on existing developed properties due to involuntary damage, as well as to proposed demolition/replacement projects or reconstructions that are pursued voluntarily by property owners.

Much of the Santa Cruz County coastline, particularly in the urbanized developed areas, has some level of armoring (walls, riprap, etc.). The primary type of coastal armoring in this area is riprap, but more modern concrete seawalls also exist. It is not uncommon for East Cliff Drive, a key arterial road, to be closed or damaged where it crosses Schwann Lake, Corcoran Lagoon and Moran Lake during large winter storms. East Cliff Drive is one of the three primary east-west transportation corridors in Santa Cruz County which include Highway One, Soquel Drive/Avenue, and East Cliff Drive/Portola Drive/Opal Cliffs Drive. A modern seawall has been constructed by the County of Santa Cruz in the Pleasure Point area along East Cliff Drive that should greatly reduce potential damage from coastal erosion to East Cliff Drive as well as the homes on the other side of the road. This seawall is featured in the Coastal Commission's Sea Level Rise Guidance document as a model and desired approach, and this is the approach that county policies would try to facilitate for the near- and mid-term before the time in the future when it is clearly no longer feasible to protect properties (i.e. beyond the horizon of this proposed Safety Element of the General Plan).

Expectations about the "expected life" or "design life" of improvements is an important consideration when establishing policies related to coastal bluff development. County policies in the 1994 General Plan/Local Coastal Program require throughout the unincorporated area a geologic setback from the top of a coastal bluff sufficient to provide a stable building site over the assumed 100-year lifetime of the structure. Updated County policies require evaluation of the setback considering not only historical shoreline and bluff retreat data, but also acceleration of shoreline and bluff retreat due to continued and accelerated sea level rise, and other climate impacts according to best available science. The level of uncertainty regarding the rate and amount of future sea level rise and future effects on coastal properties makes it difficult to predict when, where, and how much the coast will change in the future. Property owners will be required to acknowledge and accept the risk of building along the coast in order to re-set expectations regarding the expected life of structures within a context of rising sea levels. In this way, it is expected that property owners and future buyers and financiers of property along the coast will be well aware of and prepare for the projected limited lifespans of structures. In that the urban development pattern is well established and urban lot sizes do not typically accommodate moving structures back, it is proposed for the urban area that county policies and owner expectations reflect a potentially shorter expected life of improvements, which is a component of the county's proposed adaptation strategy.

Although seawalls reduce or delay coastal erosion processes as long as they remain functioning, ultimately coastal erosion continues and even the best seawalls need periodic maintenance and repairs. At some point in the future, coastal erosion processes will overwhelm the capacity of shoreline and coastal bluff protection measures, in terms of feasibility from both physical and cost considerations. Existing regulatory tools such as the Abatement of Dangerous Building Code can react to evolving conditions by requiring non-occupancy and/or removal of all or portions of a building. While seawalls remain in place, they modify coastal erosion through the reduction of wave erosion energy, or reflection or refraction of wave energy. Focused erosion can occur at the ends of the seawalls. While seawalls are helpful in protecting against coastal erosion, proper setbacks from the brow of bluffs, drainage control, and special construction are all necessary to protect structures, roadways, and utilities from damage for the expected design life of the improvements.

Different Contexts Within and Outside of Urban and Rural Services Lines (Urban / Non-Urban)
A fundamental land use policy of Santa Cruz County since adoption of the Measure J growth management framework in 1978 is to encourage new development to locate within existing developed urban areas, and to protect agricultural land and natural resources. Santa Cruz County has a long established Urban and Rural Services Line (USL/RSL) which defines an area of the county characterized by urban densities of development based on a pattern of existing supporting urban infrastructure. In contrast, areas along the coast that are not within the USL/RSL are characterized by low-intensity development, agriculture and open space. Along the coast the USL includes the 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.

The area of the County along the coast within the USL is completely urbanized, and dominated by single-family residential development on top of coastal bluffs and on beaches or back beach areas. The USL boundary at the west is the Santa Cruz Harbor coastal resource and City of Santa Cruz city limit. The boundary at the east extends to and includes the community of Seascape. This urbanized area along the coast includes the City of Capitola city limits, and the Capitola shoreline is currently protected with rip rap, coastal bluff vertical protection, and seawall protection within the key coastal visitor serving resource of Capitola Village. This urbanized area along the coast also contains critical public infrastructure such as roads, sewer, water supply, drainage, parking lots and train tracks. In many areas, such as along Opal Cliffs Drive, only one residential lot separates public roads and infrastructure from the coastal bluff and beach. Those existing roads and infrastructure improvements support public access to the coast, and support structures, businesses and economic activity related to visitor accommodations and tourism, a key job and business sector for Santa Cruz County.

Shoreline and coastal bluff protection measures are common within the USL/RSL, currently protecting about one-half of the urbanized area along the coast. These urban areas are "existing developed areas" as considered by the Coastal Act, in that the subdivisions and most development occurred well before the Coastal Act became effective in 1977. 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 (at least in the near- to mid-term before sea level rise may consume the shoreline in certain locations), some have more visual impacts than others, and some are better-maintained than others.

Coastal protection measures are not common outside of the urbanized coastal areas of Santa Cruz County. Given the two distinctly different contexts that exist within the unincorporated area, the proposed coastal bluffs and beaches and shoreline protection policies reflect a "hybrid approach", with "managed natural retreat" ("MNR") establishing the regulatory approach in the rural areas, and "conditional accommodation, acceptance of risk, amortization and adaptation" ("AAAA") establishing the regulatory approach in the urban areas.

Objective
The objective of the coastal bluffs and beaches policies is to recognize and minimize risks to life, property, and public infrastructure in coastal hazard areas; and to minimize adverse impacts on coastal resources from development in coastal hazard areas.

The Coastal Act requires that new development be sited and designed to be safe from hazards and to not adversely impact coastal resources. Coastal Act Section 30235 allows shoreline protective devices to protect existing structures in danger from erosion and when the protective device is designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Coastal Act Section 30253 prohibits new development that would in any way require the construction of protective devices that would substantially

alter natural landforms along bluffs and cliffs. In the development of LCP policies, the Coastal Commission's Sea Level Rise Guidance Document recommends local governments use adaptation measures that best implement the statewide resource protection and hazard policies of the Coastal Act considering the diverse geography and conditions of different parts of the state.

Policies must be consistent with the Coastal Act. At times, Coastal Act policies may conflict and it is difficult to balance achievement of competing interests. Notably, Section 30007.5 of the Coastal Act ("Legislative findings and declarations; resolution of policy conflicts") provides guidance for such balancing:

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

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

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

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

Section 30001.5 of the Coastal Act ("Legislative findings and declarations; goals") includes the following goals for the coastal zone, and includes both natural and man-made ("artificial" or developed) resources:

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

County of Santa Cruz Guiding Principles

Key information and guiding principles related to coastal bluffs and beaches, and shoreline/coastal bluff protection measures, which have guided formation of policies, include the following considerations supporting a "hybrid approach". The approach reflects a strategy of "managed natural retreat" ("MNR") for rural, agricultural and open space areas; and of "conditional accommodation, acceptance of risk,

amortization and adaptation" ("AAAA") for existing developed areas within the Urban and Rural Services Lines:

- At the time the Coastal Act was effective in 1977, the urbanized areas of Santa Cruz County were "existing developed areas", and as of 2017 approximately one-half of the properties within the urbanized area (within the Urban and Rural Services Lines) are currently already protected by shoreline and coastal bluff protection measures.
- For these urbanized areas, which were predominately urbanized prior to approval of the Coastal Act, it is not considered reasonable or feasible to expect that shoreline and coastal bluff protection measures will be removed or cease to exist within the foreseeable future, even in the face of climate change and sea level rise.
- Recognize that the Coastal Act explicitly allows shoreline protection measures to be installed to protect existing development, and existing development includes roadways used to access coastal resources, critical public facilities such as water and sewer lines, and visitor-serving assets such as vacation rentals and commercial areas, in addition to private homes and other private improvements.
- Recognize that many existing approved shoreline protection structures are subject to requirements for permanent monitoring, maintenance and repair. Removal, or lack of maintenance and repair, of existing shoreline and coastal bluff protection measures on a property-by-property basis, typically involves unacceptable impacts on adjacent properties which is not a supported outcome under the Coastal Act.
- Recognize that the Coastal Act also recognizes that new development would occur after adoption in 1977, and that approved developments can be considered essential for economic and social well-being.
- Recognize that the Coastal Act and other land use laws require consideration of private property rights, and ensure that policy and permitting decisions do not unduly expose the County of Santa Cruz to litigation.
- Strive to avoid placement of new rip rap that is typically associated with "emergency permits", in favor of early planning for construction of modern more-vertical seawall protection approaches in urbanized areas that would replace rip rap, which would lead to improved public access and improved visual resources during the planning horizon for the expected life of structures.
- Pursue a "managed natural retreat" strategy within rural, agricultural and open space areas, which reflects accommodation of natural processes and policies which do not favor shoreline and coastal bluff protection measures, with new development placed beyond a 75 or 100-year geologic setback line.
- Pursue an "adaptation and amortization" strategy within urbanized areas that conditionally accommodates improvements and replacements of structures on coastal bluffs, but that emphasizes an expected limited lifespan of 75 years for residential or commercial structures, or 100 years for critical structures and facilities due to sea level rise and increased coastal hazards, with agreement by property owners to undertake adaptation responses as warranted by future conditions.
- Realize that adaptation and amortization will take place over many future decades, in light of past and existing conditions, private property rights, and uncertainty about future conditions; but prepare for the time that sea level rise and climate change will mean that certain improvements on

coastal bluffs will need to be removed, and ensure that private property owners bear the costs of adaptation and removal.

- Within urbanized areas, a primary goal is to establish a regulatory approach that will encourage or require eventual replacement of existing protection structures with modern measures that are considered near- to mid-term improvements. Strive to ensure that these measures are unified in appearance, that remove rip rap as feasible to increase sandy beach areas, that incorporate public access features as feasible, that are colored and treated to better match natural materials, that participate in programmatic mitigation approaches that fund priority investments in sand replenishment and beach access, and that provide funds for eventual removal of measures in the longer-term when repair and replacements are no longer feasible.

- Recognize that the County will periodically update the Safety Element and applicable regulations in order to reflect evolving conditions and best available science. The timeframe of this current Safety Element Update is to the year 2040.

- Recognize that in the near- to mid-term, expenditures by private owners of coastal bluff properties for shoreline protection, will allow time for the County of Santa Cruz to identify funding for and carry out priority adaptation projects related to relocation of critical public infrastructure (which may also include roads and bridges) that must be undertaken in the future.

- In conjunction with approval of coastal development permits for reconstruction, additions or demolition/replacement of existing structures located on coastal bluffs within the urbanized area (within Urban and Rural Services Lines), impose conditions of approval consistent with principles of nexus and proportionality, including:

    - Acceptance of Risk associated with geologic and coastal hazards by owners, including the potential for a limited expected lifespan for improvements as identified by technical reports.

    - Waiver of any claim of damage or liability against and indemnification of the County and the California Coastal Commission for any damages or injury in connection with the permitted development.

    - Agreement to Monitoring, Maintenance and Repair Program, and to a level of hazard trigger requiring the owner to prepare a Coastal Hazards Report regarding adaptation response to evolving conditions of and closer proximity of the coastal bluff to habitable structures, which may include a required Removal and Restoration Plan.

    - Require that property owners agree and record a restriction that notifies current and future owners of a potential future formation of a Geologic Hazard Abatement District (GHAD) or similar mechanism such as a County Service Area (CSA).

    - Require property owners within the USL/RSL to recognize that should a future Shoreline Management Plan become effective, future activities that exceed "maintenance and repair" of existing shoreline and coastal bluff protection measures will only be considered if consistent with the Shoreline Management Plan, such as a unified modern design that is to be implemented through a GHAD or CSA, to address related units of coastal bluff properties and coastal resources that exist within the urbanized area or sub-area. The Shoreline Management Plan would be required to address potential effect on beach area, potential opportunities to improve public access to the coast, protection of visual resources, and protection of public roads and infrastructure.

    - Require property owners to recognize that local jurisdictions have the power to require that unsafe/dangerous structures be vacated and/or abated/removed, under the California

Building Code and Code for Abatement of Dangerous Buildings, when site conditions are such that hazards to life and public safety are no longer acceptable. Ensure that property owners are responsible for costs of removal of development and restoration of sites in a manner that best enhances coastal resources.

Objective 6.4 Coastal Bluffs and Beaches

(LCP) To reduce and minimize risks to life, property, and public infrastructure from coastal hazards, including projected hazards due to sea level rise, wave run-up and coastal erosion, and to minimize impacts on coastal resources from development.

~~**Policies**~~

~~**6.2.10 Site Development to Minimize Hazards**~~

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

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

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

~~6.2.12 Setbacks from Coastal Bluffs~~

~~(LCP) All development activities, including those which are cantilevered, and non habitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff. A setback greater than 25 feet may be required based on conditions on and adjoining the site. The setback shall be sufficient to provide a stable building site over the 100-year lifetime of the structure, as determined through geologic and/or soil engineering reports. The determination of the minimum 100 year setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed shoreline or coastal bluff protection measures. *(Revised by Res. 81-99)*~~

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

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

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

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

~~6.2.14 Additions to Existing Structures~~

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

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

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

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

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

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

6.2.16 Structural Shoreline Protection Measures

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

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

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

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

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

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

No approval shall be given for shoreline protective structures that do not include permanent monitoring and maintenance programs. Such programs shall include a report to the County every five years or less, as determined by a qualified professional, after construction of the structure, detailing the condition of the structure and listing any recommended maintenance work. Maintenance programs shall be recorded and shall allow for County removal or repair

~~of a shoreline protective structure, at the owner's expense, if its condition creates a public nuisance or if necessary to protect the public health and safety. *(Revised by Res. 81-99)*~~

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

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

~~6.2.18 Public Services in Coastal Hazard Areas~~

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

~~6.2.18.1 Density Calculations~~

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

~~6.2.19 Drainage and Landscape Plans~~

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

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

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

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

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

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

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

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

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

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

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

Programs

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

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

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

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

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

(LCP) f. Support, encourage, seek funding, and cooperate with the Coastal Conservancy, Coastal Commission, State Lands Commission, and the Corps of Engineers for the establishment and maintenance of a permanent survey monument monitoring network along the coast. Utilize existing monuments set by Caltrans, other public agencies, geologic consultants, and others to

~~the greatest degree possible. Incorporate the use of these monuments into all future planning for shoreline protective structures. Provide geo-reference (latitude and longtitude) for each monument and structure. (Responsibility: Planning Department, Public Works)~~

General Shoreline Policies

6.4.1 Shoreline Policy Framework

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

6.4.2 Site Development to Minimize Coastal Hazards and Protect Coastal Resources

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

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

(LCP) Recognize scientific uncertainty by using within technical reports and project designs reasonably foreseeable projections of sea level rise (SLR) within the acceptable range established by the best available science. The sea level rise projection is 3 feet by 2100, based on National Research Council determinations. The projection to be used in technical reports will be incorporated into Coastal Hazard Report Administrative Practice Guidelines issued by the Planning Director, which will be periodically revised based upon current best professional practices and best available science. Guidance may be provided for projections to be used for intermediate or longer-term timeframes, such as 50-year or 100-year SLR projections.

6.4.4 Identifying Planning Horizons

(LCP) The time horizon to use to evaluate sea level rise is the expected design life of development, after which such development is expected to be removed, replaced or redeveloped. A new or redeveloped residential or commercial structure has an expected design life of 75 years. A critical structure or facility has an expected design life of 100 years. The hazards analysis shall evaluate the site over 75 or 100 years. Using that evaluation, the structure would be set back or designed to avoid hazards over the planning horizon, if possible. However, in areas subject to future hazards, the expected design life of any particular development may be limited by site conditions and an exception approved by the County may specify a shorter expected life than the 75 or 100-year horizon. The expected life of development in the coastal zone is not an entitlement to maintain development in hazardous areas, but shall be used for sea level rise planning purposes.

6.4.5 Geologic Hazards Assessment and Technical Reports in Coastal Hazard Areas

(LCP) Require a geologic hazards assessment or full geologic, geotechnical, hydrologic, and/or other engineering report(s) for all development activities within 100 feet of a coastal bluff or within coastal hazard areas, except for maintenance, remodeling and repair activities for existing

structures that do not involve expansion or intensification of use that triggers a requirement for a coastal development permit. Other technical reports may be required if significant potential hazards are identified by the hazards assessment. Reports must be prepared in substantial conformance with Coastal Hazard Report Administrative Practice Guidelines issued by the Planning Director, which will be based on current best professional practices and best available science, and which may include requirements for alternatives analysis under a range of future possible scenarios. Setback calculations consider historical shoreline and bluff retreat factors, but must also consider projected acceleration of retreat due to sea level rise, wave run-up and other climate impacts according to best available science. Reports must be accepted by the County in order to use report findings as the basis for design of proposed structures or improvements.

6.4.6 Prohibit New 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 building site for an expected 75 or 100-year lifetime, or where development would require the construction of public facilities or utility transmission lines within coastal hazard areas or in the area necessary to ensure a building site for the expected 75 or 100-year lifetime.

6.4.7 New Development on Existing Undeveloped Lots of Record

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

(a) A technical report(s), including a geologic hazards assessment, geologic, geotechnical, hydrologic, or other engineering report, demonstrates that the potential hazard can be adequately mitigated by providing a minimum 75 or 100-year geologic/coastal hazards setback calculated at the time of submittal of the development application. Additional mitigations can include, but are not limited to, building setbacks, elevation of the structure, and foundation design.

(b) As an alternative to the 75 or 100-year hazard setback, the property owner may apply for a Geologic/Coastal Hazards Setback Exception to request that the geologic setback applicable to the site reflect a shorter expected lifespan for the development.

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

(d) The owner records a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release on the property deed that describes the potential hazards, documents the calculated expected lifespan of improvements, provides that the current and all future owners and successors in interest accept the risks to people and property, and includes a release of liability of and waiver of claims against the County of Santa Cruz, and of the Coastal Commission, as relevant, for damages or injury in connections with the permitted development.

6.4.8 Density Calculations

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

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

(LCP) As a condition of approval of Coastal Development Permits on sites subject to coastal hazards, require the applicant to record on title/deed to the property, prior to issuance of a building permit or grading permit, a Notice of Geologic/Coastal Hazard, Acceptance of Risk, and Liability Release. The Notice shall be in a form approved by the County of Santa Cruz, and shall include the following acknowledgements and agreements, as applicable to the specific project:

Coastal Hazards. That the site is subject to coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, tidal scour, coastal flooding, liquefaction and the interaction of same;

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

Waive Liability. To unconditionally waive any claim of damage or liability against the County of Santa Cruz and of the California Coastal Commission, and the officers, agents, and employees of each of these agencies, for injury or damage in connection with the permitted development;

Indemnification. To indemnify and hold harmless the County and the California Coastal Commission, and the officers, agents, and employees of each of these agencies, with respect to the County's and/or Coastal Commission's approval (or non-appeal) of the development against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage in connection with the permitted development;

Property Owner Responsible. That any adverse effects to property caused by the permitted development shall be fully the responsibility of the property owner. That cost of abatement and/or future removal of structures shall be the responsibility of the property owner;

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

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

Public Funds. That public funds may not be available in the future to repair or continue to provide services to the site (e.g., maintenance of roadways or utilities);

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

Public Trust Lands. That the structure may eventually be located on public trust lands; and

Removal or Relocation. That the structure may be required to be removed or relocated and the site restored if it becomes unsafe, it is no longer located on private property, or essential services to the site can no longer feasibly be maintained.

6.4.10 Exceptions Takings Analysis

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

Shoreline Policies by Shoreline Type

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

(LCP) Development activities involving placement of new, redeveloped or reconstructed habitable improvements on a coastal bluff site, including those which are cantilevered, and development of new, redeveloped or reconstructed nonhabitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff on sites located within the Urban and Rural Services Lines (USL/RSL). A setback greater than 25 feet may be required based on conditions on and adjoining the site, based upon recommendations of required geologic, soil engineering and/or other technical reports, in order to protect life safety for the reasonably foreseeable future. Within the USL/RSL, the geologic/coastal hazards setback shall be based on a 75 or 100-year assumed expected life of the improvements, calculated at the time of application for permits when the technical reports are submitted. For sites on coastal bluffs for which there is no existing shoreline protection structure, the technical reports must include a calculation of the required geologic/coastal hazards setback that is based on the existing site conditions and does not take into consideration the effect of any proposed shoreline or coastal bluff protection measures.

Within the Urban and Rural Services Lines, the calculation of the 75 or 100-year geologic/coastal setback, or alternate timeframe setback requested under an exception procedure, may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. However, protection measures installed under an emergency coastal permit shall not be factored into the setback calculation unless a regular Coastal Development Permit is issued and all conditions of the permit are met. In addition, technical reports prepared for sites within the Urban and Rural Services Lines shall also include analysis based upon an alternative calculation of the 75 or 100-year setback that neglects any effect of an existing coastal protection structure, in order to provide a measure of the effects of the existing protection measure on the site conditions and provide information for decision making.

Existing shoreline and coastal bluff protective measures may have both beneficial and adverse impacts on public coastal resources, as well as on adjacent properties. The required setback analysis shall consider the condition of a legally established shoreline or coastal bluff protection measure and identify any impacts it may be having on public access, recreation, scenic views, sand supply and other coastal resources. The analysis shall identify any benefits the protection measure provides, 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 identified impacts, while maintaining or increasing public benefits. 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 established principles of nexus and proportionality, as well as ensuring that no adverse effects on adjacent properties are created.

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

(LCP) Development activities involving placement of new, redeveloped or reconstructed habitable improvements on a coastal bluff site, including those which are cantilevered, and development of new, redeveloped or reconstructed nonhabitable structures for which a building permit is required, shall be set back a minimum of 25 feet from the top edge of the bluff on sites located outside of the Urban and Rural Services Lines (USL/RSL). A setback greater than 25 feet may be required based on conditions on and adjoining the site, based upon recommendations of required geologic, soil engineering and/or other technical reports, in order to protect life safety for the reasonably foreseeable future. Outside the USL/RSL, the geologic/coastal hazards setback shall be based on a 75 or 100-year assumed expected life of the improvements, calculated at the time of application for permits when the technical reports are submitted. For sites on coastal bluffs for which there is no existing shoreline protection structure, the technical reports must include a calculation of the required geologic/coastal hazards setback that is based on the existing site conditions and does not take into consideration the effect of any proposed shoreline or coastal bluff protection measures.

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

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

(LCP) If structures located on or at the top of a coastal bluff are damaged as a result of coastal hazards, including slope instability and seismically induced landslides, and where the loss involves 65 percent or more of Major Structural Components, allow reconstruction or replacement if all applicable LCP policies and regulations can be met, including the minimum 25-foot and the applicable 75 or 100-year geologic/coastal setbacks, or alternate setback authorized by an approved setback exception that establishes a shorter-term expected life for the structure.

For structures involuntarily damaged by other than coastal hazards (fire, for example), where the loss involves 65 percent or more of the Major Structural Components, allow in kind reconstruction or replacement if the following conditions are met:

(1) the area of the structure that is within the geologic/coastal hazard setback does not exceed 25% of the area of the structure, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit; OR

(2) the structure cannot be relocated to increase the setback due to inadequate parcel size, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit.

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

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

6.4.14 Bluff Face Development

(LCP) Structures, grading, and landform alteration on bluff faces are prohibited, except for the following: public access structures where no feasible alternative means of public access exists or shoreline protective devices if otherwise allowed by the LCP. Such structures shall be designed and constructed to be visually compatible with the surrounding area to the maximum extent feasible and to minimize effects on erosion of the bluff face.

6.4.15 Flood Hazard Policies

(LCP) As further addressed in Section 6.6 Flood Hazards, new development shall be located outside of the flood hazard area, wherever possible, and to incorporate floodproofing measures as required by FEMA and local flood regulations in areas subject to flood hazards.

6.4.16 Flood Hazard Mitigation

(LCP) If it is infeasible for new development to avoid flooding hazards, development should be designed to minimize risks from flooding, including as influenced by sea level rise, over the anticipated life of the development to the maximum extent feasible and otherwise constructed using design techniques that will limit damage caused by floods. Residential design shall incorporate appropriate flood hazard mitigation measures, including, but not limited to: elevating the finished floor (e.g., above the estimated combined 100-year storm flood elevation considering sea level rise and wave uprush scenario); locating only non-habitable space below the flood hazard elevation; elevating and storing hazardous materials out of the flood hazard area; elevating mechanical and utility installations; prohibiting basements; and using flood vents and anchoring structures where appropriate. However, elevated height should be limited to ensure consistency with visual resource protection policies, and to ensure that access to utilities, including water, sewer, and roads, can continue over the anticipated duration of the development. If such access cannot be ensured consistent with LCP policies, then conditions shall be added requiring assumption of risk, removal conditions, and retreat management plan.

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

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

Exceptions: Public beach facilities and replacements

6.4.18 Dunes

(LCP) Siting and design of new development adjacent to dunes shall take into account the extent of landward migration of the foredunes that can be anticipated over the anticipated duration of the development. This landward migration shall be determined based upon historic dune erosion,

storm damage, anticipated sea level rise, and foreseeable changes in sand supply. Development shall be set back a sufficient distance to prevent impacts to coastal resources, assure structural stability of the development, and avoid coastal hazards over the expected lifespan of the development. If development cannot be set back sufficiently to avoid hazards during its expected life, due to lot size, configuration or other factors, it shall be set back as much as possible and sited and designed to protect coastal resources and minimize hazards to the extent feasible (See Flood Hazard policies in Section 6.6). When permitted, development shall be subject to removal plan conditions in Policy 6.4.37 – Removal Plan Conditions for New Development in Hazardous Areas.

6.4.19 Rocky Shoreline Development

(LCP) Development atop rocky shoreline areas with no beach or limited beach shall not impact existing public access to the shoreline and shall incorporate conditions of approval as appropriate to increase public access to the shoreline.

6.4.20 Development Along Creeks and Rivers in the Coastal Zone

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

6.4.21 Habitat Buffers

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

Shoreline Policies by Project Type

6.4.22 Publicly Owned Facilities

(LCP) Consistent with Coastal Act Policy 30610(g), 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 75 or 100-year setback from the edge of the bluff, may be maintained, repaired, reconstructed, redeveloped 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.

6.4.23 Public Works Facilities

(LCP) Unless otherwise exempted public works projects as defined in the Coastal Act shall be consistent with the Local Coastal Program.

6.4.24 Public Services in Coastal Hazard Areas

(LCP) Prohibit utility facilities and service transmission systems in coastal hazard areas unless they are necessary to serve existing development or public facilities. Transmission of high speed internet/broadband access is considered a necessary public facility/service.

6.4.25 Structural Shoreline and Coastal Bluff Protection Measures

(LCP) Limit structural shoreline and coastal bluff protection measures to those which protect existing principal structures from a significant threat, or vacant lots where both adjacent parcels are already similarly protected, or vacant lots which through lack of protection threaten adjacent or nearby developed lots; or those which protect public roads and infrastructure, public beaches and coastal recreation areas, or coastal dependent uses.

For sites located within the Urban and Rural Services Lines, recognize that a majority of the coastal bluff properties have been developed for many decades, and are already protected by a variety of shoreline protection measures that involve a range of impacts to coastal resources. Through the coastal development permit review process, encourage or require, consistent with the principles of nexus and proportionality, replacement of existing protection structures that involve impacts, with modern protection structures that are unified in appearance, that remove rip rap as feasible to increase sandy beach areas, that incorporate public access features as feasible, that are colored and treated to better match natural materials, and that participate in programmatic mitigation approaches that fund priority investments in coastal access and recreation, and sand replenishment.

Require any application for structural 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, natural or "green" infrastructure like beaches, dune systems, wetlands, and other engineered systems to buffer coastal areas. Permit structural protection measures only if non-structural measures are infeasible from an engineering standpoint or not economically viable.

Any approved new, replacement, reconstructed or redeveloped shoreline protection structure must not result in reduced or restricted public beach access, adverse effects on shoreline processes and sand supply, increased erosion or flooding on adjacent properties, adverse impacts on coastal visual or recreational resources, or harmful impacts on wildlife and fish habitats or archaeological or paleontological resources. If impacts to coastal resources may result from implementation of the project, then require appropriate mitigation consistent with principles of nexus and proportionality for the nature of the improvement. Mitigation approaches may include activities either on-site or off-site, and may include payment of mitigation fees to either the County of Santa Cruz or to the California Coastal Commission, to be used on projects or programs that mitigate impacts with priority given to activities that provide greatest public or environmental benefits.

Any new protection measure should be placed as close as possible to the coastal bluff or development requiring protection and must be designed to minimize adverse impacts to recreation and to minimize visual intrusion, and to provide adequate mitigation of impacts. Shoreline protection measures shall minimize visual impact by employing materials that blend with the color or natural materials in the area, and by using vegetation for screening as appropriate to the setting. Shoreline protection measures shall be designed to meet approved engineering standards and applicable County Code provisions for the site as determined through the coastal development, building, and grading permit 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 a requirement for submittal and county acceptance of a Monitoring, Maintenance and Repair Program prior to finalization of the building/grading permit for the structure. Such programs shall include a report to the County after completed construction of the structure, and every five years or less thereafter, as determined by either the County Geologist or a qualified professional, detailing the condition of the structure and listing any recommended maintenance and repair work. The monitoring plan and periodic report shall address impacts to shoreline processes and beach width and impacts to public access and availability of public trust lands for public use. Monitoring, maintenance and repair 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.

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

As a condition of approval for new development or redevelopment that is protected by an existing coastal protection structure and for all development involving construction of a new coastal protection structure require conditions of approval that include, but are not limited to, the following:

a) **Mitigation Programs.** Require mitigation of adverse impacts on coastal resources, and require payment of a Shoreline Mitigation Fee.

To mitigate for impacts to public access and recreation resulting from loss of beach and bluff area a Shoreline Mitigation Fee shall be collected by the County which shall be deposited in an interest-bearing account designated by the County in-lieu of providing beach or bluff area to replace the public access and coastal recreation benefits that have been or would be lost due to the impacts of any existing or proposed protective structure.

The Planning Director shall issue Shoreline Mitigation Fee Administrative Practice Guidelines and incorporate the methodology developed by the California Coastal Commission for calculating a shoreline mitigation fee based on a calculation of the potential loss of beach sand supply over the life of the development. The Guidelines may be updated from time to time based on future conditions and best practices, and additional mitigation may be required.

The funds shall be used to implement projects which augment and enhance public access and coastal recreation along the shoreline, not to fund other public or private operations, maintenance or planning studies.

Project applicants have the option of proposing a shoreline mitigation project in lieu of payment of Shoreline Mitigation Fees to the County. At the County's discretion, these projects may be accepted if it can be demonstrated that they would provide a directly-related recreation and/or access benefit to the general public.

Shoreline Mitigation Fees must be expended for public access and public recreation improvements as a first priority and for sand replenishment and retention as secondary priorities where an analysis done by the County Parks Director determines that there are no near-term, priority public recreation or public access improvements identified by the County where the money could be allocated.

b) **Repair, Restacking, Removal and/or Replacement of Existing Rip Rap or Other Existing Shoreline Protection to Improve Conditions Relative to Effects on Coastal Resources.** For sites protected by existing rip rap, require that the applicant submit a report at the time of filing an application for a building permit, including a Recovery Plan for the maintenance and repair and possible removal of all or a portion of the existing approved rip rap revetment, to recover migrated rip rap and to provide for least disturbance of the beach and shoreline while also functioning as necessary to protect the structures on and adjacent to the parcel. The Recovery Plan must incorporate Best Management Practices for maintenance and repair to address potential impacts to sensitive species and environmental resources, as well as Best Management Practices for construction during maintenance and repair activities.

(c) **Urbanized Area Shoreline Management Strategy Alternative.** For projects located within the Urban and Rural Services Lines, property owners must agree and acknowledge that approved coastal shoreline protection/armoring structures may be maintained and repaired (with building or grading permits as needed) in accordance with conditions of approval of Coastal Development Permits authorizing the structures; but that new, replacement, reconstructed or redeveloped shoreline protection measures, or any addition to, enlargement, or expansion of an existing shoreline protection structure will require updated technical reports and approval of another coastal development permit. The property owner and /or any future heirs or assigns must further acknowledge and agree that, should a Shoreline Management Plan become effective, any future shoreline protection/armoring structure (including but not limited to seawalls, revetments, retaining walls, tie backs, caissons, piers, groins, etc.), that exceed previously authorized maintenance and repair of the existing structures, will only be considered for approval if proposed as part of a comprehensive strategy outlined in an approved Shoreline Management Plan, such as a unified project design that is implemented through a Geologic Hazard Abatement District (GHAD) to address related units of coastal bluff properties and coastal resources that exist in the urbanized area. Such a Strategy may allow for phased implementation within sub-areas. The Shoreline Management Plan would be required to address effects on beach areas, potential opportunities to improve public access to the coast, protection of visual resources, and protection of public roads and infrastructure in response to sea level rise.

6.4.26 Drainage and Landscape Plans

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

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

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

6.4.28 Exception for Foundation Replacement and/or Upgrade

(LCP) Foundation replacement and/or foundation upgrades that meet the definition of development activity in Chapter 13.20 Coastal Regulations of the Santa Cruz County Code, shall meet the 25-foot minimum and the applicable 75 or 100-year geologic/coastal hazard setback

requirements. An exception to those requirements is allowed for foundation replacement and/or upgrade 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 geologic/coastal hazard setback does not exceed 25% of the area of the structure, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit; OR

(2) the structure cannot be relocated to meet the setback due to inadequate parcel size, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit.

6.4.29 Additions to Existing Structures Located on Coastal Bluff and Beaches

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

6.4.30 Swimming Pools and Spas

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

6.4.31 Accessory Structures

(LCP) Coastal Development Permits are required for accessory structures, whether habitable or nonhabitable, and whether or not a building permit is required under Chapter 12.10 Building Regulations. CDPs authorizing accessory structures must include a condition of approval that requires the property owner and all successors in interest to remove the structure if the County Geologist, the Building Official or a licensed geotechnical engineer determines that the accessory structure is at risk of failure due to erosion, landslide or other form of bluff collapse or geologic/coastal hazard. In the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site.

Ongoing Adaptation

6.4.32 Removal Conditions/Development Duration

(LCP) New development and redevelopment on private property located in areas subject to coastal hazards shall be conditioned to require that it be removed and the affected area restored if:
(a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed;
(b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads);
(c) the development is no longer located on private property due to the migration of the public trust boundary;
Such condition shall be recorded on a deed restriction against the subject property.

6.4.33 Abatement of Unsafe Site or Structure

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

6.4.34 Bluff or Beach Erosion Trigger for Technical Report

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

6.4.35 Removal and Restoration

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

6.4.36 Repetitive Loss Properties

(LCP) Repetitive loss properties shall be subject to the requirements of Policy 6.4.13 and 6.4.17 regarding damage due to coastal bluff erosion and storm wave impacts and inundation. Repetitive Loss property is any habitable building for which two or more coastal hazard events caused damage, the repair of which meets or exceeds any of the criteria in Policy 6.4.25 Redevelopment within any rolling ten-year period since 1978. Multiple losses at the same

location within 10 days of each other are counted as 1 loss. The loss history includes all ownership of the property since 1978 or since the building's construction if built after 1978.

6.4.37 Shoreline and Coastal Bluffs Management Plan(s)

(LCP) Seek funding to assist with more specific planning that would assess alternatives and identify preferred strategies for how various segments of the urbanized area shoreline/coastal bluffs could transition if more comprehensive modern approaches to shoreline protection were implemented by the County and/or private property owners through Geologic Hazard Abatement District(s) or County Service Area(s); rather than property-by-property measures. Should a future Shoreline and Coastal Bluffs Management Plan(s) become effective, all development shall be found to be substantially consistent with the provisions of the approved management plan.

Programs

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

(LCP) b. Develop and implement a program to correct existing erosion problems along coastal bluffs caused by public drainage facilities, and monitor and enforce compliance of private drainage facilities with approved designs and applicable standards. (Responsibility: Public Works)

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

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

(LCP) e. Notify private property owners in areas subject to coastal hazards they are responsible for costs of responding to property damage due to coastal erosion, coastal flooding, and wave run-up hazards, including but not limited to repair, replacement, relocation and/or removal of a portion or all of damaged structures. Encourage property owners to create a contingency fund to cover future costs to modify, relocate and/or remove development that may become threatened in the future by sea level rise and/or when removal triggers are met. Costs for removal and restoration may be based on estimates provided by a licensed building moving/demolition contractor (C-21) for the amount of contingency funds necessary to remove the structure, including any seawall and restore the site. The amount of contingency funds should be reviewed every ten years and adjusted to account for changed site conditions, inflation and other conditions that effect the amount of future contingency funds needed.

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

(LCP) g. Explore, with regional, state and federal agencies as appropriate, whether it is desirable or feasible to create a program that would exclude certain areas of the coast and/or certain types of projects, from being eligible for FEMA insurance or other programs that involve shifting costs of private property repair, replacement or abatement to public agencies or to insurance ratepayers in general.

(LCP) h. Consider the best available and most recent scientific information with respect to the effects of coastal hazards and long-range sea level rise when establishing sea level rise maps, scenarios, and assumptions for use in geologic, geotechnical, hydrologic and engineering investigations, including coastal hazards analyses. Support scientific studies that increase and refine the body of knowledge regarding potential sea level rise in the County, and possible responses to it.

(LCP) i. Research and identify a range of financing mechanisms to support the implementation of adaptation strategies, including through grant programs (e.g. State Coastal Conservancy Climate Ready grants, NOAA Coastal Resilience grants, FEMA/Cal OES Hazard Mitigation funding) and utilization of in-lieu fees collected as mitigation for shoreline armoring.

(LCP) j. Work with entities that plan or operate infrastructure, such as Public Works, Santa Cruz County Sanitation District, Water Districts, the Regional Transportation Commission, Caltrans and PG&E, to plan for potential realignment of public infrastructure impacted by sea level rise, with emphasis on critical accessways.

(LCP) k. Support efforts to develop and implement innovative design alternatives that reduce or eliminate flood damage, especially those which would qualify through FEMA as acceptable alternatives to elevation under the National Flood Insurance Program (NFIP). Encourage homeowners to implement voluntary floodproofing measures in conjunction with development that is not required to be elevated.

(LCP) l. **Shoreline Management Plan** Pursue grant funding to enable creation of one or more Shoreline Management Plans for the shoreline area within the Urban and Rural Services Lines, or sections of the shoreline with similar existing conditions and potential hazards. Shoreline management plans would include the short and long term goals for the specified area, the management actions and policies necessary for reaching hazard reduction, environmental and public access goals, and necessary monitoring and maintenance to ensure effectiveness. The Plan should examine priorities for shoreline management, timelines, options, specific projects to be implemented, phasing and action triggers. As components of the management plan, assess seasonal and long-term shoreline changes and the potential for flooding or damage from erosion, sea level rise, waves, and storm surge. Plans should provide recommendations for adapting existing development, public improvements, coastal access, recreational areas, and other coastal resources. Plans should assess the impact of existing development, and evaluate the feasibility of hazard avoidance, managed retreat, restoration of the sand supply and beach

nourishment in appropriate areas. Incorporate strategies necessary to manage and adapt to changes in wave, flooding, and erosion hazards due to sea level rise.

(LCP) m. Identify in the Shoreline Management Plan specific objectives for defined subareas of the County's coastline. Define subsections geographically where multiple adjacent properties would be managed toward the same objective. Identify the subareas and specific policies that apply in the zones.

(LCP) n. Identify in the Shoreline Management Plan actions and programs that can be implemented in the near term or would be implemented based on pre-determined future triggers to preserve recreational, habitat, and other coastal resource values. Include research into opportunities for additional adaptation actions that would be implemented based on future impacts. Possible actions may include removal, modification or relocation of existing development.

(LCP) o. Establish in the Shoreline Management Plan the conditions of existing beaches and coastal access including widths and berm heights throughout the tidal and seasonal ranges. The purpose of studying existing beaches is to provide a baseline to monitor future changes as a result of sea level rise, assess the impact of existing development, and support future actions outlined in the Shoreline Management Plan.

(LCP) p. Seeking additional funding to implement the Shoreline Management Plan or specific actions outlined in the Plan

(LCP) q. Take actions to support creation of Geologic Hazard Abatement District(s) or County Service Area(s) involving one or more sections of the coastline, as a preferred mechanism for funding replacement of existing protection measures in the urban area with more modern measures, for portions of the coast within urban and rural services lines that are planned to be protected in the near- to mid-term.

6.5 GRADING AND EROSION HAZARDS

Erosion is closely related to slope stability and this section of the Safety Element addresses the need for drainage and erosion control plans for certain grading and development projects. It also sets forth standards for the prevention of erosion and siltation on properties irrespective of whether permits are being sought for property improvements.

Thresholds for when discretionary grading permits, exception permits, winter grading permits (consistent with both the grading and erosion control regulations), and land clearing permits are required for development projects are also established in this section.

Land Clearing Permits are required for any land clearing of existing natural areas of one-quarter acre or more. The threshold for when this permit is required has been lowered in response to increasing erosion and damage to habitats that has resulted from increased intensity of certain special agricultural activities, including but not limited to cannabis cultivation.

Agricultural grading on less than twenty percent slopes, as well as vineyards and associated terracing (irregardless of slope), does not require a regular grading permit and is instead subject to agricultural grading regulations. However, defined "specialized agricultural activities" such as greenhouses, indoor growing, aquaculture and any cannabis cultivation activities involving more than 100 cubic yards is not considered agricultural grading and requires a regular grading permit, and grading on twenty percent slopes or more also requires a regular grading permit.

Objectives 6.~~3~~5 Erosion

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

Policies

6.~~3~~5.1 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 apply for an Exception Permit to 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~~5.2 Grading Projects to ~~Address~~ Comply with Codes and Engineer's Recommendations, and Incorporate ~~Mitigation~~ Measures

(LCP) Grading permits involving less than 1,000 cubic yards of earth material on less than 20 percent slopes which are processed as ministerial building permits, must comply with the standards of applicable county codes and the recommendations of a soils or geotechnical report in order to be approved and issued. Discretionary grading permits above this threshold may be processed concurrently with a building permit, and are processed administratively. Discretionary grading permits for grading of 8,000 cubic yards or more, or for grading of 1,000 cubic yards or more if the grading area is visible to the public from a designated scenic public road or visible to the public within a designated scenic area, are subject to approval of the Planning Commission and conditions of approval may be imposed. Standards for exemptions from a requirement for a discretionary grading permit are established by the County Code Grading Regulations. Deny

any grading project where a potentially significant danger to soil or water resources has been identified and adequate mitigation measures cannot be undertaken.

6.35.3 Abatement of Grading and Drainage Problems

(LCP) Require, as a condition of development approval for new development on a site, or for grading subject to a requirement for a discretionary grading permit, that abatement of any grading or drainage condition on the property which gives rise to existing or potential erosion problems be abated.

6.35.4 Erosion Control Measures and/or Erosion Control Plan Approval Required for Development

(LCP) Require that all grading permits processed as ministerial building permits include erosion control measures within the grading plan that meet county and professional standards. Require approval of an eErosion cControl pPlan in conjunction with a Winter Grading Permit for all proposed winter grading or other development that is subject to the Erosion Control regulations such as a Land Clearing Permitdevelopment, as specified in the Erosion Control and Grading ordinances. Vegetation removal shall be minimized and limited to that amount indicated on the approved development plans, but shall be consistent with fire safety requirements.

6.35.5 Installation of Erosion Control Measures

Require the installation of the required erosion control measures plan for winter grading activities subject to consistent with the Erosion Control ordinance, by either October 15, or the advent of significant rain, or project completion, whichever occurs first and depending upon the nature of the project and the time that grading will occur. Prior to October 15, require adequate erosion control measures to be implemented during grading activities provided to prevent erosion from early storms, and that the area of grading be free of loose and erodible soils upon completion of grading activities. For permitted discretionary grading and 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 measures are taken to prevent excessive sediment from leaving the property.

6.35.6 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 through issuance of a Winter Grading Permit in compliance with the Grading and Erosion Control Ordinances. If such activities take place, measures to control erosion must be in place at the end of each day's work.

6.35.7 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, including revegetation to be established from seeds of native plant species and grasses that are retained within the topsoil and nearby undisturbed native plant species and grasses; native vegetation should be used in replanting disturbed areas to enhance long-term stability.

6.35.8 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 to, at a minimum, not exceed pre-development levels in compliance with applicable standards, 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~~5.9 (LCP) **Site Design to Minimize Grading**

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 unless a Slope Exception Permit has been approved by the County in accordance with the Grading Ordinance and Policy 6.5.1 of the Safety Element; and 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 by the applicant's qualified soils professional and approved by County staff 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 with erosion control fabric.

6.~~3~~5.10 (LCP) **Land Clearing Permit**

Require an administrative discretionary ~~l~~Land ~~c~~Clearing ~~p~~Permit and an erosion control plan for clearing one-quarter or more acres, except when clearing is for existing agricultural uses. Clearing grazing lands of existing native grasses or other existing vegetation, for the purpose of establishing more intensive agriculture such as row crops, wine grapes, greenhouses or cannabis cultivation, requires a Land Clearing Permit. Require that any erosion control and land clearing activities be consistent with all General Plan and LCP Land Use Plan policies and implementing regulations of the County Code.

6.~~3~~5.11 (LCP) **Sensitive Habitat Considerations for Land Clearing Permits**

Require a Land Clearing ~~p~~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 and implementing regulations of the County Code.

6.~~3~~5.12 (LCP) **Cannabis Industry: Avoid Excessive Grading**

In order to protect public health and safety and prevent negative environmental impacts from grading and land disturbance, avoid excessive grading and disturbance associated with cannabis activities. This includes grading for access roads and other site improvements such as pads, structures, terracing and other infrastructure, including grading which may be required to meet fire code or other standards. Carefully evaluate grading that would significantly alter topography, visual character of an area or coastal resources, and avoid or minimize such alteration. Consider or favor alternate locations that would require less disturbance. Deny licenses and land use permits where necessary to implement this policy.

6.~~3~~5.13 (LCP) **Cannabis Industry: Site Restoration**

Ensure that sites used for cannabis activities are restored to pre-graded condition, as appropriate, when cannabis activities are relocated, activity has ceased, or a cannabis license is no longer valid.

6.5.14 Ensure Property Owners Comply with Regulations to Prevent Runoff, Erosion and Pollution

Ensure that all property owners, whether or not they are involved with pursuing or implementing development or grading/building permits, are aware of County Code Title 7 provisions prohibiting activities that generate water and other pollution, such as that produced by improper conditions that allow accelerated erosion to affect waterways and habitats.

6.5.15 Regular Grading Permits required for Specialized Agricultural Activities and Grading on Slopes of Twenty Percent or More

Agricultural grading on less than twenty percent slopes, as well as vineyards and associated terracing (irregardless of slope), does not require a regular grading permit and is instead subject to agricultural grading regulations. However, defined "specialized agricultural activities" such as greenhouses, indoor growing, aquaculture and any cannabis cultivation activities involving more than 100 cubic yards is not considered agricultural grading and requires a regular grading permit, and grading on twenty percent slopes or more for any crop other than vineyards also requires a regular grading permit.

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: Environmental Health, Public Works and Planning Department)

b. Enforce the comprehensive Erosion Control and Runoff and Pollution Control ordinances requiring control of existing erosion problems as well as the installation of erosion, sediment, and runoff control measures in new developments. (Responsibility: Environmental Health, Public Works and Planning Department~~, Planning Commission, Board of Supervisors~~)

(LCP) c. Pursue grants or other cost-sharing programs with outside and/or private or non-profit 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)

FLOOD HAZARDS

Flooding and coastal storms present similar risks and are usually related types of hazards in the County of Santa Cruz. Coastal storms can cause increases in tidal elevations (called storm surge), wind speed, coastal erosion, and debris flows, as well as flooding. During a flood, excess water from rainfall or storm surge accumulates and overflows onto the banks, beaches, and adjacent floodplains. Floodplains are lowlands adjacent to rivers, lakes and oceans that are subject to recurring floods. Several factors determine the severity of floods, including rainfall intensity and duration, creek and storm drain system capacity, and the infiltration rate of the ground.

A flood occurs when a waterway receives a discharge greater than its conveyance capacity. Floods may result from intense rainfall, localized drainage problems, tsunamis or failure of flood control or water supply structures such as levees, dams or reservoirs. Floodwaters can carry large objects downstream with a force strong enough to destroy stationary structures such as homes and bridges, and can break utility lines. Floodwaters also saturate materials and earth resulting in the instability, collapse and destruction of structures as well as the loss of human life.

Floods usually occur in relation to precipitation. Flood severity is determined by the quantity and rate at which water enters the waterway, increasing volume and velocity of water flow. The rate of surface runoff, the major component to flood severity, is influenced by the topography of the region as well as the extent to which ground soil allows for infiltration in addition to the percent of impervious surfaces. It is important to note that a stream can crest long after the precipitation has stopped.

As storms arrive onto land from the Pacific and rise over the mountains and ridges that border the eastern boundaries of the County, the air associated with those storms cools and that cooling results in large amounts of precipitation. The topography provides fairly steep and well- defined watershed areas to funnel the falling rain into runoff tributaries. Periods of very heavy rainfall are common throughout fall and winter months and the two rivers in the County, along with several creeks and streams, can rise to flood stage in a short period of time. Settlement and habitation in the County, from the historic Ohlone Indian camps through the founding of the Santa Cruz Mission in 1791, and subsequent logging communities throughout the 1800's, tended to acknowledge the floodplain areas of the rivers and streams, building on the higher ground. However, as the population grew, particularly in the middle 1900's, low lying areas near virtually every waterway were encroached upon for housing, business, or agricultural development.

Climatologists point out that the period between 1920 and 1970, the years of most significant growth in Santa Cruz County, was a "dry cycle" for most of central California. Only one or two instances of serious winter weather in the 1950's highlighted the consequence of development in low-lying areas. Over time, land that had previously been avoided was developed for both commercial and residential use in the floodplains of the San Lorenzo and Pajaro Rivers, Soquel and Aptos Creeks, and along the beaches. As a consequence, substantial portions of the City of Santa Cruz and the City of Watsonville have been flooded, houses and businesses in the San Lorenzo Valley have been damaged or destroyed by floodwaters, and there have been losses along Soquel Creek, Aptos Creek, and in beach areas on multiple occasions over the past half-century.

Future projections of climate change impacts indicate that flood hazards will increase in coastal areas due to sea level rise, and in inland areas due to hydrologic changes in watersheds that may include more frequent and more intense rain events and consequent increases in flood hazards. Policies are update to provide additional flood protection to plan for future increases in flood hazards.

The policies of the Flood Hazards section require new development to be located outside of the flood hazard area, wherever possible, and to incorporate floodproofing measures as required by FEMA and local flood regulations in areas subject to flood hazards.

Objective 6.~~4~~6 Flood Hazards

(LCP) To reasonably protect new, replacement, reconstructed, modified, and existing structures from flood hazards, including sea level rise and coastal wave run-up hazards, in order to minimize economic damages within the expected lifespans of such structures; and to address 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.

Policies

6.~~4~~6.1 Geologic/Flood/Coastal Hazards Assessments and Reports, and Use of Best Available Science Required in Flood Hazard Areas and on Coastal Bluff Locations

(LCP) Require an assessment of geologic, coastal, and flood hazards ~~assessment of~~ for all development, and building/grading proposals within the County's flood hazard areas and for coastal bluff properties in order to identify flood hazards and development constraints. Recognize scientific uncertainty by using a reasonably foreseeable projection of sea level rise within the acceptable range established by the best available science. The sea level rise projection is 3 feet by 2100, based on National Research Council determinations. The projection to be used in technical reports will be incorporated into Coastal/Flood Hazard Report Administrative Practice Guidelines issued by the Planning Director, which will be periodically revised based upon current best professional practices and best available science. Guidance may be provided for projections to be used for intermediate or longer-term timeframes, such as 50-year or 100-year SLR projections. Any Hazards Assessment or Investigation Report must be accepted by the County Geologist in order to use its findings and/or incorporate its mitigations into a proposed development project.

6.~~4~~6.2 Development Proposals Protected from Flood Hazard

(LCP) Approve only those grading applications and development proposals that are adequately protected from flood and coastal hazards and which do not add to flooding damage or potential within applicable regulatory or expected lifespans of structures. This may include the requirement for foundation design which minimizes displacement of flood waters, as well as other mitigation measures. Require all developments to be sited and designed to avoid or minimize flood hazards for the expected lifespans of principal structures associated with the development.

6.~~4~~6.3 Development 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 and conditioned to protect life/safety, and within the applicable regulatory or expected lifespans of structures. Such determination shall be made by the County Geologist, or a registered~~certified engineering~~ geologist may conduct this review at applicant's choice and expense.

6.~~4~~6.4 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, 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.~~floodplain or coastal inundation areas.~~

6.~~4~~6.5 New Parcels in Flood Hazard Areas~~100-Year Floodplains~~

(LCP) Allow the creation of new parcels, including those created by minor land division or subdivision, in the flood hazard areas~~100-year floodplains~~ only under the following circumstances:

(a) A full hydrologic report and any other appropriate technical report(s) must demonstrate that each proposed parcel contains at least one building site, including as applicable a septic system and leach field site, which is not subject to flood hazard within the expected lifespan of the development, 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 ~~A declaration indicating~~ the limits and elevations of the flood hazard area as~~one-hundred-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. (Revised by Res. 81-99)

6.~~4~~6.6 Density Calculations

(LCP) In all areas exclude the portion of the property designated within the flood hazard area ~~100-year floodplain~~ from density calculations. Require clustering of allowable units to minimize flood hazards, as warranted and feasible given the location of the development.

6.~~4~~6.7 New Construction to be Outside Flood Hazard Areas

(LCP) Restrict new construction to the area outside the flood hazard areas~~100-year floodplain and area subject to coastal inundation~~, if a buildable portion of the parcel exists outside such areas.

6.~~4~~6.8 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, with maximum elevation and height of structure within established limits~~floodplain~~. Require floodproofing or elevation of non-residential structures. Require~~d~~ that foundations do not cause floodwater displacement except where necessary for floodproofing. Establish a maximum flood elevation for structures elevated above flood and wave run-up levels; guided by when the mean high tide line will trigger all or a portion of a property to become subject to public trust ownership, and/or when it is no longer feasible to provide access and/or utilities to a development.

6.6.9 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. The freeboard requirement in Coastal A and V Zones is three feet. In all other flood hazards areas, the freeboard requirement above the base flood elevation shall be two feet. These values may be revised periodically based on best available new science, as determined by the Planning

Director through issuance of Administrative Practice Guidelines. 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~~6.~~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 located and designed to avoid impairment or contamination in accordance with County Sewage Disposal Regulations. ~~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)~~

6.6.11 Fill Placement

(LCP) Allow grading within the 100-year floodplain only if there is no net increase in fill, or if it can be demonstrated through analysis by a qualified engineer's report that is reviewed and accepted by the County, and by FEMA if applicable, that the grading will not have cumulative adverse impacts on or off site. No fill is allowed in the floodway.

6.~~4~~6.~~10~~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 be designed or must incorporate mitigations/conditions of approval to ensure that they do 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.

6.6.13 Required Recordation on Deed of Notice of Geologic/Coastal Hazard, Acceptance of Risk, and Liability Release, and Indemnification Prior to Permit Approval

(LCP) Prior to issuance of a building or grading permit on sites subject to flood hazards, require the applicant to record on title/deed to the property a Notice of Geologic/Coastal Hazard, Acceptance of Risk, and Liability Release. The Notice shall be in a form approved by the County of Santa Cruz, and shall include the following acknowledgements and agreements, as applicable to the specific project:

Coastal Hazards (if applicable). That the site is subject to coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, tidal scour, coastal flooding, liquefaction and the interaction of same;

Assume and Accept Risks. To assume and accept the risks to the Applicant and the properties that are the subject of a building or grading permit of injury and damage from such geologic/flood/coastal hazards in connection with the permitted development;

Waive Liability. To unconditionally waive any claim of damage or liability against the County of Santa Cruz and of the California Coastal Commission (if applicable), and the officers, agents, and employees of each of these agencies, for injury or damage in connection with the permitted development;

Indemnification. To indemnify and hold harmless the County and the California Coastal Commission (if applicable), and the officers, agents, and employees of each of these agencies, with respect to the County's and/or Coastal Commission's approval (or non-appeal) of the development against any and all liability, claims, demands, damages, costs (including costs and

fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage in connection with the permitted development;
Property Owner Responsible. That any adverse effects to property caused by the permitted development shall be fully the responsibility of the property owner. That cost of abatement and/or future removal of structures shall be the responsibility of the property owner;
Flood Insurance. If the structure is built so that it does not comply with an effective BFE data as may be shown on future final Flood Insurance Rate Maps (FIRM), acknowledging that the structure may be subject to a higher flood insurance rating, likely resulting in higher-risk annual flood insurance premium if the property owner purchases flood insurance (voluntarily, or as required by mortgage lenders). If a program is created in the future that removes the subject location from being eligible for FEMA flood insurance, agree not to protest and to abide with the terms of such a program.
Formation of GHAD or CSA. The property owner and / or any future heirs or assigns, by accepting this permit, acknowledge that a Geologic Hazard Abatement District (GHAD) or County Service Area (CSA) may be formed in the future by the County or other private entity to address geologic/flood/coastal hazards, and assessments may be proposed for the abatement of geologic hazards.
Public Funds. That public funds may not be available in the future to repair or continue to provide services to the site (e.g., maintenance of roadways or utilities);
Occupancy. That the occupancy of structures where sewage disposal or water systems are rendered inoperable may be prohibited;
Public Trust Lands. That the structure may eventually be located on public trust lands; and
Removal or Relocation. That the structure may be required to be removed or relocated and the site restored if it becomes unsafe, it is no longer located on private property, or removal is required pursuant to adaptation planning requirements.

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 adopted FEMA Maps are published. ~~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, Environmental Health~~Planning~~ Department).

e. Continue to provide information to property owners located in flood hazard areas~~floodplains~~ and coastal high hazard~~inundation~~ 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 the San Lorenzo River, Soquel Creek, Pajaro River, 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~~ Public Works Department, County Office of Emergency Services)

g. ~~Prepare~~ Maintain detailed tsunami evacuation plans for coastal areas subject to the tsunami hazard. (Responsibility: County Office of Emergency Services)

(LCP) h. Consider ~~I~~incorporate~~ing~~ 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, Planning)

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 continue to monitor potential rise in sea level due to climate change~~the greenhouse effect~~ and refine regulations 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.

WILDLAND AND URBAN FIRE HAZARDS

Introduction

A wildland fire may be defined as any unwanted fire involving outdoor vegetation. This may be perceived as only occurring in forests, rangelands or agricultural fields, but it might also occur in vacant lots, highway medians, parks, golf courses and rural residential areas. The term Wildland Urban Interface (WUI) describes many of these areas. The nature of wildland fire has changed with incidents in the WUI. The potential for both life and property losses in the WUI is exponentially higher than non-populated wildlands. In addition, human influence has greatly increased the number and variety of potential sources of ignition. Wildland fires are influenced by three factors: fuel, weather and topography. Wildfire spread depends on the type of fuel involved (grass, brush and trees). Weather influences wildland fire behavior with factors such as wind, relative humidity, temperature, fuel moisture and possibly lightning. Several of these factors can modify the rate the fire will burn. Topography is the biggest influence on fire severity. While normal weather conditions in the Santa Cruz Mountains can be categorized as cold and damp with extensive marine influence (fog), several times each year conditions are created where fuel moisture levels have been measured below 5% with temperatures above 90o, and north winds greater than 45 mph.

Large areas of the County have been mapped as Critical Wildfire Hazard Areas due to accumulations of wildfire prone vegetation, steep and dry slopes and the presence of structures vulnerable to wildland fires. These areas are generally situated in the steeper higher elevations of the county. Most of these areas are along the border of Santa Clara County or in the Coastal ridges between Highway 9 and Highway 1. While the map of Critical Fire Hazard Areas remains relevant for areas of increased wildfire risk, it should be noted that wildland fires may occur anywhere withing the SRA or LRA.

The potential magnitude or severity of future fires could be predicted from experience gained from the recent fires of 2008/2009. In those fires, spotting exceeding 1 mile, torching of conifers, flame lengths exceeding 100', area ignition and sheeting were all observed. In 2008, over 75 structures were destroyed on 3 fires alone. Similar fuels (Manzanita/Knobcone, Eucalyptus, chaparral, and mixed conifer forestland), topography and weather conditions are expected to be encountered in future fires creating a repeat of extreme fire behavior exhibited in recent large local fires.

Santa Cruz County is ranked 9th among 413 western state counties for percentage of homes along the WUI and 14th in California for fire risk. During the preparation of the countywide Community Wildfire Protection Plan (CWPP), numerous assets at risk were identified. These include thousands of residences, several schools including a State University, several youth camps, and numerous commercial facilities. There are 5 local public water systems with extensive infrastructure situated within high hazard areas. Three state highways and 3 major power transmission Rights of Way cross through vulnerable areas. Due to topography and limited access, both the protection plus potential reconstruction of these assets will be hampered.

The impact of wildfire on a community is far-reaching. The most significant impacts would be loss of life, environmental damage and loss of property. Air quality is also a major issue, which can force the closure of schools and businesses as well as limit human activity. Damage to infrastructure such as culverts, roads and bridges can be difficult to locate and repair in a timely manner. During the rainy season, burned-over areas are subject to mudslides and debris torrents which can be exacerbated by infrastructure damage. Sedimentation due to winter rains can destroy fish habitats, which can have a catastrophic effect on the eco-system.

A fire threat will always exist in the WUI. There will always be flammable vegetation, structures and human activities creating a situation where it is not "if" but "when" the next large fire occurs in the county.

This Wildland and Urban Fire Hazards section addresses natural fire hazards as well as fire hazards from human activity and increased hazard levels projected to occur as a result of climate change. In compliance with State law, this section establishes road standards and development requirements for fire prevention and response.

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 approaches 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 States 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 processes. 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. Of course, the partnership of private property owners is essential for implementing fire prevention strategies. 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~~7 Fire Hazards

To protect the public from the hazards of fire through citizen awareness, preventing measures for mitigating the risks of fire, responsible fire protection planning, and built-in systems for fire detection and suppression.

Policies

6.7.1 Defensible Space

In the State Responsibility Area and Very High Fire Hazard Severity Zones within the Local Responsibility Area maintain defensible space around structures in compliance with State law, County Fire Code, and local fire district ordinances, which require 100 feet from each side and from the front and rear of structures, but not beyond a property line under an owner's control. 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 in the vicinity of the structure, with the most intense management being immediately 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.

6.7.2 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 must obtain any and all required permits.

6.7.3 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 Chapter 16.32 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.

6.7.4~~5.1~~ Access Standards

Require all new structures, including additions and Accessory Dwelling Units of more than 500 new square feet (not including Conversion ADUs), added to single-family dwellings on existing parcels of record, to provide and maintain an adequate driveway or road for fire protection in conformance with the ~~following~~adopted standards of State law, County Fire Code, and local fire district ordinances. The County Fire Department has established the following standards for access roads, and the local fire districts have also adopted these standards:

(a) Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet, exclusive of shoulders, except for approved security gates, and an unobstructed vertical clearance of not less than 15 feet.

Exceptions

Within the State Responsibility Area (SRA) of Santa Cruz County, all driveways serving two or fewer habitable structures shall have an unobstructed width of not less than 12 feet and an unobstructed vertical clearance of not less than 15 feet.

Within the Local Responsibility Area (LRA) of Santa Cruz County, ~~A~~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.~~

Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved by 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 ~~Uniform~~ Fire Code of Santa Cruz County and fire districts within the unincorporated area of Santa Cruz County.

(c) The access road surface shall be "all weather", which means a minimum of six inches of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction for grades up to and including 5 percent and shall be maintained. For grades up to and including 15 percent the base rock shall be overlain by oil and screen. Where the grade of the access road exceeds 15 percent, the base rock shall be overlain by 2 inches of asphaltic concrete~~, Type B or equivalent,~~ and shall be maintained.

(d) The maximum grade of the access road shall not exceed ~~20~~16 percent in State Responsibility Area (SRA) or 20 percent in Local Responsibility Area (LRA).~~, with grades greater than 15 percent not permitted for distances of more than 200 feet at a time.~~

(e) Areas within 10 feet horizontal and 15 feet vertical on each side of portions of highways, public and private streets, roads and driveways which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth. Design of such area may be found in Santa Cruz County Fire Prevention Officers Standards.~~The access road shall have a vertical clearance of 14 feet for its entire width and length, including turnouts.~~

(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. Gate entrances shall be at least 2 (two) feet wider than the access road being secured, but in no case shall the width be less than 14 (fourteen) feet unobstructed horizontal clearance and unobstructed vertical clearance of 15 (fifteen) feet. When gates are to be locked, the installation of a key box or other acceptable means for immediate access may be required.~~Gates shall be a minimum of 2 feet wider than the access road/driveway they serve. Overhead gate structures shall have a minimum of 15 feet vertical clearance.~~

(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) In the State Responsibility Area (SRA) ~~N~~no roadway shall have a~~n~~ horizontal inside ~~turning~~ radius of curvature of less than 50 feet. Roadways with a radius of 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. In Local Responsibility Area (LRA) the minimum centerline radius shall be 35 feet.

(j) Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.

(k) Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire code official

All bridges shall be a minimum of 20 feet of clear width. The fire code official may allow the width to be reduced for access to U-1, U-2 or R-3 occupancies in accordance with Objective 6.5 – Fire Hazards of the Santa Cruz County General Plan.

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.

Every private bridge shall be recertified every ten years or whenever deemed necessary by the fire code official. Such recertification shall be in accordance with the requirements of 503.2.6.2.

An existing private bridge not conforming to these regulations may be required to conform when in the opinion of the fire code official, such repairs are necessary for public safety. ~~Bridges shall be as wide as the road being serviced, meet a minimum load bearing capacity of 25 tons, and have guard rails. Guard rails shall not reduce the required minimum road width. Width requirements may be modified only with written approval from the Fire Chief. Bridge capacity shall be posted and shall be certified every five years by a licensed engineer. For bridges served by 12 foot access roads, approved turnouts shall be provided at each bridge approach.~~

(l) All private access roads, driveways, 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.

6.7.5~~5.2~~ Exceptions to Access Road Standards

Exceptions to these standards and requirements that apply to all new structures (except Conversion Accessory Dwelling Units or ADUs 500 square feet or less), including additions or ADUs of more than new 500 square feet to single-family dwellings on existing parcels of record, may be granted at the discretion of the ~~F~~fire code official~~Chief~~ for single-family dwellings on existing parcels of record as follows:

(a) When the existing access road is acceptable to the Fire Department having jurisdiction.

(b) In addition, any of the following mitigation methods may be required prior to issuance of a building permit and/or as a condition of discretionary development approval:

(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 ~~F~~fire code official~~Chief~~.

(c) The level of road improvement required shall bear a reasonable relationship to the magnitude of development proposed.

6.7.6~~5.3~~ Conditions and Requirements for ~~Project~~ Approval of Discretionary Development Permits and/or Ministerial Building Permits

Impose the following requirements on new development through the building permit review process, and/or c~~C~~ondition approval of all discretionary development permits for new structures and additions, including for additions of ~~larger than~~ 500 square feet or less, and to new single-family dwellings on existing parcels of record, to meet and maintain at all times the following fire protection standards, unless requirements are allowed to be modified by State law, County Fire Code, and local fire district ordinances:

(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. When 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 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 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.~~ An approved water supply capable of supplying 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; and/or payment of an in-lieu fire mitigation fee may allow for some exemptions to fire protection standards, especially for additions of less than 500 square feet.

(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 defensible 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~~one-half inch~~ wire mesh or other noncombustible material with openings not to exceed ½ inch (12.7 mm). ~~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.

(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. ~~Where practical, refuse disposal should be by methods other than open burning.~~

(g) Require fire retardant construction~~roofs~~ 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.~~

6.7.7~~5.4~~ 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 6.8.8~~5.5~~, 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 of one-quarter acre or more, or other vegetation modification within a Sensitive Habitat Area, shall be in conformance with the Erosion Control Ordinance and/or Sensitive Habitats Ordinance of the Santa Cruz County Code, including obtaining a Land Clearing Permit and/or Biotic Permit 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.**~~

6.7.8~~5.5~~ 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’ from a through road unless acceptable to and recommended by the applicable fire protection agencies and the Department of Public Works, and approved by the Planning Commission.

6.7.9~~5.6~~ 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.

6.7.10~~5.7~~ Certification of Adequate Fire Protection Prior to Permit Approval

(LCP) 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.

6.7.11~~5.8~~ Public Facilities Within Critical Fire Hazard Areas

(LCP) 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.

6.7.12~~5.9~~ Consistency With Adopted Codes Required for New Development

(LCP) Require all new development to be consistent with the ~~Uniform~~ California Fire Code, California Building Code, and other adopted County and local fire agency ordinances.

6.7.13~~5.10~~ Land Divisions Access Requirements

(LCP)

(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.

6.7.14~~5.11~~ 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~~program does not require any entity to rename or renumber existing roads or streets, unless a threshold established by the County Code has been exceeded. ~~Nor shall a~~ A roadway providing access only to a single commercial or industrial occupancy shall not 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 CAL FIRE~~the Department of Forestry~~ and fire protection agencies. (Responsibility: ~~California Department of Forestry and Fire Protection~~ CAL FIRE, 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~~ Maintain 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. ~~Update a~~ Periodically review the "Santa Cruz County Master Fire Plan" and the "Santa Cruz County Community Wildfire Protection Plan", and update the plans as necessary.

~~Fire Protection Improvement Program and Long Range Plan for Santa Cruz County."~~ (Responsibility: ~~Board of Supervisors,~~ CAL FIRE, Resource Conservation District, County Fire Marshal, local fire protection agencies, County Office of Emergency Services)

k. 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. Encourage fire protection agencies to establish educational fire prevention programs in order to have the public recognize ~~their~~its 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. Review and update on a periodic basis the countywide ~~Disaster Contingency~~ Emergency Management Plan. Include the appropriate County agencies in all phases of disaster contingency planning. (Responsibility: Board of Supervisors, Office of Emergency Services)

(LCP) n. Update the Critical Fire Hazard Map and fire hazard severity zone maps as new site-specific information becomes available which more precisely defines these areas. (Responsibility: Planning Department, County Fire Department, CAL FIRE~~California Department of Forestry and Fire Protection~~, local fire protection agencies)

n. Identify ~~high fire risk areas~~ fire hazard severity zones 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. In cooperation with fire protection agencies, develop coordinated action programs to reduce the hazard to existing development in critical fire hazard areas and fire hazard severity zones 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~~fuel 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. Amend and update the Santa Cruz County General Plan ~~Fire~~ Safety Element Wildland and Urban Fire Hazards section as needed, to reflect fire code amendments. (Responsibility: Board of Supervisors, County Fire Marshal, local fire protection agencies, Planning Department)

AIR QUALITY

This new section of the Safety Element shifts and amends policies from the Conservation and Open Space Element of the county's 1994 General Plan. This section also overlaps with many policies and programs found in the Circulation Element. Location of the Air Quality section within the Public Safety Element reflects importance of air quality and greenhouse gas emissions as related to climate change, as well as public health and safety impacts on the population caused by air pollution.

Atmospheric pollution is determined by the amount of pollutant emitted and the atmosphere's ability to transport and dilute it. In Santa Cruz County, coastal mountains exert strong influence on atmospheric circulation, creating a breezy coastal environment with generally good ambient air quality. However, in the San Lorenzo Valley and certain small inland valley areas, air quality can be poor at times due to wood smoke generated by fireplaces used for heating and other purposes. Also, localized sources can cause odors or create dust or other air quality problems. Fuels and solvents used for vehicles, space and water heating, industrial processes, and commercial uses; and incineration processes, fires, and pesticides are typical pollutant sources. Autos are the largest source of pollutants.

Air Quality Management Plans (AQMPs) are developed for regions throughout the state to meet the air quality requirements and standards for specific pollutants, including ozone, nitrogen oxide and dioxide, sulfur dioxide, carbon monoxide, and suspended particles, as outlined in the federal and State Clean Air Acts. The North Central Coast Air Basin (Monterey, Santa Cruz, and San Benito counties) has been designated as a moderate, transitional non-attainment area because it exceeds air quality standards for ozone and inhaled particulate matter. The region's AQMP prescribes methods for attaining ozone and particulate matter standards and for maintaining air quality in the region.

Attainment of air quality standards is achieved through measures to control emissions from stationary sources (factories, commercial activities, etc.) and mobile sources (cars and trucks). The County of Santa Cruz offers low-cost permits for change-outs of woodstoves and fireplaces from wood-burning to gas. Transportation control measures (TCMs) and land use programs also contribute to improving air quality. In addition to attaining air quality standards for ozone and particulate matter, the Monterey Bay Unified Air Pollution Control District, the County, and regional and local agencies are concerned with reducing stratospheric ozone depletion and regulating the emission of chlorofluorocarbons (CFCs), carbon dioxide, and other "greenhouse gases" (GHGs).

GOAL: Take actions consistent with the region's air quality management plan, and focus special attention on assisting with efforts to reduce wood smoke pollution in San Lorenzo Valley

Objective 6.8-1 To improve the air quality of Santa Cruz County by meeting or exceeding state and federal ambient air quality standards, protect County residents from the health hazards of air pollution, protect agriculture from air pollution induced crop losses and prevent degradation of the scenic character of the area.

Objective 6.8-2: Address localized air quality issues, including indoor air quality.

Objective 6.8-3: Implement incentive programs to assist homeowners with replacement of wood-burning fireplaces and woodstoves with gas-fired appliances.

Policies

6.8.1 New Development

Require future development projects to implement applicable Monterey Bay Unified Air Pollution Control District (MBUAPCD) control measures and/ or air quality mitigations in the design of new projects as set forth in the District's "CEQA Guidelines." Cf. M3.3.4.

6.8.2 Non-Attainment Pollutants

Prohibit any net increase in emissions of non-attainment pollutants or their precursors above the thresholds established by the MBUAPCD from new or modified stationary sources.

6.8.3 Air Quality Mitigations

Require land use projects generating high levels of air pollutants (i.e., manufacturing facilities, hazardous waste handling operations) to incorporate air quality mitigations in their design.

6.8.4(a)Offshore Oil Development

Prohibit development, construction, or installation of any onshore facility necessary for or intended to support offshore oil or gas exploration and development unless a General Plan and Local Coastal Program amendment is approved by the voters of the County which allows such development. (See policies in sections 5.3 and 5.4.) *Revised by Res. 142-2014*

6.8.4(b)Onshore Oil and Gas Development

Prohibit development, construction, installation, or use of any facility necessary for or intended to support oil or gas exploration or development from any surface location within the unincorporated area of the County of Santa Cruz, whether the subsurface portion(s) of such facility is within or outside the unincorporated area of the County of Santa Cruz, and prohibit development, construction, installation or use of any facility necessary for or intended to support oil or gas exploration or development from surface locations outside the unincorporated area of the County of Santa Cruz which may begin, pass through or terminate below the surface of land located within the unincorporated area of the County of Santa Cruz. This prohibition applies to facilities directly involved in oil and gas exploration, production, and refinement such as wells, pipelines and pumps. *Revised by Res. 142-2014*

6.8.5 Sensitive Land Uses

Locate air pollution-sensitive land uses away from major sources of air pollution or require mitigation measures to protect residential and sensitive land uses from freeways, arterials, point source polluters, and hazardous material locations.

6.8.6 Plan for Transit Use

Encourage commercial development and higher density residential development to be located in designated centers or other areas that can be easily served by transit.

6.8.7 Alternatives to the Automobile

Emphasize transit, bicycles and pedestrian modes of transportation rather than automobiles, as well as telecommuting and alternative work schedules.

6.8.8 Encouraging Landscaping

Maintain vegetated and forested areas, and encourage cultivation of street trees and yard trees for their contributions to improved air quality.

5.18.9 Greenhouse Gas Reduction

Support and implement local actions and County, State and federal plans and legislation promoting the reduced emission of carbon dioxide and other greenhouse gases, and actions to achieve reduction goals and standards.

6.8.10 Elimination of Ozone Depleting Chemicals

Support and implement local actions to achieve the most rapid possible international, national, state, and local elimination of the emission of ozone-depleting chemicals.

Programs

a. Implement the Urban Forestry Master Plan to increase the urban tree canopy. (Responsibility: Board of Supervisors, County Departments)

b. Support air quality monitoring, air pollution control strategies, and enforcement by the Monterey Bay Unified Air Pollution Control District. (Responsibility: Board of Supervisors)

c. Control aerial spraying of pesticides and fertilizers, to the degree possible, to prevent contamination of areas adjacent to sprayed areas. (Responsibility: Agricultural Commissioner)

d. Ensure that agricultural burning practices are in accordance with state and regional laws and permit open burning of debris only in instances where other disposal methods are not feasible. (Responsibility: State Department of Forestry, Regional Air Quality Control District, Agricultural Commissioner)

e. Encourage public education programs promoting reduced emissions from transportation-generated pollutants and area-wide sources, and encourage lesser polluting transportation alternatives through the construction of bikeways and the provision of public transit. (Responsibility: Board of Supervisors, Santa Cruz Metropolitan Transit District, Transportation Commission)

f. Ensure that forestry and agricultural wastes are chipped rather than burned where feasible and permissible considering disease control and other land use compatibility factors. (Responsibility: State Department of Forestry, Regional Air Quality Control District, Agricultural Commissioner)

g. Closely monitor industrial processes and require them to utilize the best available procedures to protect air quality. (Responsibility: Planning Commission, Regional Air Quality Control District)

h. Update and implement a Trip Reduction Ordinance. (Responsibility: Planning Department, Planning Commission, Board of Supervisors)

i. Replace County-owned and encourage replacement of privately-owned fire extinguishers with models that do not use ozone depleting compounds. (Responsibility: General Services, Board of Supervisors)

j. Encourage and support tree planting programs by governmental agencies, private business, individuals and non-profit organizations with a goal of planting at least one tree in Santa Cruz County each year for every person born in the County during such year. (Responsibility: County Administrative Office, Board of Supervisors)

k. Investigate methods for developing a carbon dioxide budget for the County that limits carbon dioxide emissions.

l. Implement chlorofluorocarbon (CFC) recycling and elimination regulations.

m. Strive to eliminate the use of polystyrene foam (PSF) packaging products throughout the county.

n. Permit major indirect sources of air pollution only if they provide transportation measures to reduce their impacts to a less-than-significant level, consistent with applicable MBUAPCD recommended mitigation and control measures as set forth in the District's "CEQA Guidelines." Cf. LU1.2.

o. Implement and enforce a Smoking Pollution Control Ordinance.

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 ~~s~~tates 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 6.9~~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 maximize ~~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

6.9.1~~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.

6.9.2~~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.

6.9.3~~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~~a. 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~~b. 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~~c. 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 6.10~~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

6.10~~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.

6.10~~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.

6.10~~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.

6.10~~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.

6.10~~7~~.5 Floodplains and Sensitive Habitats

Prohibit any facility to be located within a floodplain or area which could adversely impact any sensitive habitat.

6.10~~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~~ evaluated for consistency with this criteria by a registered geologist before permitting.

6.10~~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.

6.10~~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.

6.10~~7~~.9 Prime Agricultural Land

Demonstrate an overriding public service need before approving the siting of hazardous waste management facilities in commercial agricultural lands.

6.10~~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.

6.10~~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~~etc~~. 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.

6.10~~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.

6.10~~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

6.10~~7~~.14 Require Environmental Review
Require proposed facilities to comply with the California Environmental Quality Act prior to approval of any permit or commitment of funding for construction of the facility.~~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.

6.10~~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.

6.10~~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.

6.10~~7~~.17 Proximity to Waste Generators
Locate household hazardous waste collection facilities close to residential and/or commercial zoned areas to encourage their use.

6.10~~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 determination, then the following siting policies shall apply.

Policies

6.10~~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%).

6.10~~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.

6.10~~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.

6.10~~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.

6.10~~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.

6.10~~7~~.24 Prevention of Significant Deterioration (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.

6.10~~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.

6.10~~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.

6.10~~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.~~8~~11a 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.~~8~~11b 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~~11.1 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~~11.2 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~~11.3 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~~11.4 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: Public Works~~Planning~~ Department, Environmental Health~~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: Public Works Department, Environmental Health, Information Service-GIS ~~Planning Department~~)

ENVIRONMENTAL JUSTICE

In 2016, the State of California also adopted requirements for General Plans to address environmental justice for disadvantaged communities. Disadvantaged communities are defined as low-income areas (at or below 80% of area median household income) that are disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure or environmental degradation. While the unincorporated area of Santa Cruz County does not contain communities that meet the technical definition, certain sub-area of unincorporated Santa Cruz County can at times be of similar status as a disadvantaged community, depending upon how the geographic limits are defined and upon economic circumstances of the area population as the economy and housing market changes. This Safety Element therefore incorporates environmental justice requirements and generally addresses these unique or compounded health risks for these certain sub-areas that may at times qualify as disadvantaged communities, including policies regarding promotion of civil engagement in public decision making, and prioritization of improvements and programs that address the needs of disadvantaged communities.

In Santa Cruz, the community areas and environmental hazards that may at times qualify as disadvantaged communities affected by pollution or hazards include:

1. Areas of San Lorenzo Valley affected by woodsmoke from heavy use of fireplaces and woodstoves in homes;

2. Areas in San Lorenzo Valley that are affected by the lack of sewer infrastructure and existence of older and possibly failing septic systems;

3. Areas in Davenport that are subject to high water and sewer treatment rates due to the nature of infrastructure and small number of users;

4. Areas in Soquel and Live Oak that are subject to moratoriums due to inadequate and/or undersized stormwater and sanitation infrastructure; and

5. Areas within the Soquel Creek Water District that are served by a groundwater basin that is in overdraft and households subject to high costs to connect to and be served by the system.

6. Area within the Freedom area of the County affected by high costs to maintain and upgrade sewer infrastructure.

Objective 6.12.1 Environmental Justice

Address unique or compounded health risks for areas that may be considered disadvantaged communities affected by pollution or hazards, through developing plans to address the pollution or hazards, and providing funding as feasible through the Capital Improvement Plan and County Budget processes and through seeking funding from federal, state, regional or local grant programs.

Policies

6.12.1 Civil Engagement

Promote civil engagement within disadvantaged communities in public decision making.

6.12.2 Woodburning Fireplaces and Stove

In recognition of the broad public health benefits that result from decreased burning of wood and wood pellets to heat homes, reduce or waive permit fees for change-outs of woodburning fireplaces and stoves to gas-fired appliances.

6.12.3 Cement Plan Re-Use

Support a re-use of the cement plant site in Davenport that will modernize and improve water and sewage treatment, and will lower costs to community residents and businesses.

6.12.4 Septic Systems

Support modern septic treatment approaches in the San Lorenzo Valley in order to phase out underperforming septic systems and improve water quality and the environment.

6.12.5 Groundwater Management

Support efforts of the Soquel Creek Water District to identify a water source that will prevent further overdraft of the aquifer and lead to recharge and recovery of the aquifer.

6.12.6 Drainage and Sanitation Facilities

Update Stormwater Drainage and Sanitation Facilities Master Plans in order to ensure availability of infrastructure to serve planned development in the Soquel and Live Oak areas.

6.12.7 Local Income Surveys

Perform local income surveys to determine if an area is considered a disadvantaged community in order to qualify for grant opportunities from state and federal sources.

6.12.8 Disadvantaged Communities

Prioritize improvements and programs that address the needs of disadvantaged communities.

~~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.~~

Attachment 5

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General Plan Chapter 9 Noise Element	
Existing Requirements	• Noise control policies are currently embedded in the Public Safety Element • Provides land use compatibility guidelines for various land uses in two separate figures • Requirement for acoustical studies for certain situations • Address residential development, vibrations from rail, and construction noise
Proposed Amendments	• Background information on noise and the County's approach to noise control • Retain Figure 6-1 and Figure 6-2 as new Table 9-2 and 9-3 • Include new noise contour maps • Add a list of preferred noise mitigation strategies • Add policy addressing specific land uses based on existing SCCC requirements • Add a policy referencing the noise ordinance
Reason	• Typically, General Plans include a separate stand-alone Noise Element as recommended by the State General Plan Guidelines • Noise generation, measurement, and control is a complex subject and some background information is helpful to understand the policies • Include one Table 9-2 providing noise compatibility standards applicable to all types land uses • New noise contour maps would facilitate compliance with building code sound insulation standards for new development
Environmental Evaluation	• Less than significant impact • New noise contour maps will improve the ability to require noise sensitive land uses in excessively noisy locations to be designed with appropriate noise insulation features required by the building code • Creates the policy basis for amendment of the noise ordinance to compile and organize clear standards for project review

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Chapter 9

NOISE

- **Noise Compatibility**
- **Transportation Noise**
- **Nuisance Noise and Enforcement**

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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.

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INTRODUCTION

Noise affects how we respond and perceive the quality of the places in which we live, work and socialize. High levels of noise can have health and safety effects. For these reasons, noise requires careful consideration in maintaining public health, and is considered in community planning and development permitting processes. It is important to consider noise exposure when planning locations for or permitting new land uses and developments. The General Plan and zoning maps consider compatibility of land uses, and permit processes ensure that impacts of unacceptable noise levels on future occupants are avoided and minimized, with different thresholds and mitigation strategies used for different types of land uses and developments.

This Noise Element examines noise sources in the unincorporated County. Strategies for reducing existing and potential noise impacts are identified. In particular, the Noise Element contains policies and programs to achieve and maintain noise levels compatible with various types of existing and future land uses and developments. While not all sound is noise, due to varying sensitivities and different expectations within different contexts, it is appropriate for a community to establish thresholds for when a sound becomes unacceptable noise and thus a nuisance that is subject to enforcement. The element therefore also establishes policies and programs oriented toward addressing noise associated with site-specific conditions or nuisance conditions. Chapter 8.30 of the Santa Cruz County Code further implements the goals, objectives and policies of this Noise Element.

SCOPE AND CONTENT OF THE NOISE ELEMENT

The State of California, in recognition of the relationship between noise and noise-sensitive uses and the public health concerns associated with noise, has established requirements for Noise Elements in Government Code Section 65302(f). These requirements include defining current and projected future noise conditions in the form of noise exposure contours, which present information in a manner similar to topographic map contours. This noise information serves as a basis for planning for appropriate distribution of land uses on the General Plan Land Use Maps, for policies considered when evaluating development applications, and for establishing appropriate design and development standards that are applied to new developments and uses.

Pursuant to State law, the requirements for a Noise Element are as follows:

A noise element shall identify and appraise noise problems in the community. The noise element 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.

Noise contours are included within the Element and are used as a guide for establishing a pattern of land uses that minimizes the exposure of community residents to excessive noise. The Noise Element includes measures that address existing and foreseeable noise problems, and serves as a guide for compliance with the State's noise insulation standards.

Several Federal and State Regulatory Agencies have created reports and information regarding mitigation of noise from transportation and other sources, intended to minimize exposure of people to loud noise sources. These agencies and resources include:

- Federal Highway Administration: Construction Noise Handbook; Highway Traffic Noise: Analysis and Abatement Guide; Synthesis of Noise Effects on Wildlife Populations
- Federal Transit Authority: Transit Noise and Vibration Impact Assessment
- Federal Aviation Administration: Environment Noise and Emissions
- U.S. Department of Housing and Urban Development
- California Noise Insulation Standards (Title 24 of the California Code of Regulations)
- Caltrans: Traffic Noise Analysis Protocol; Quieter Pavement Research Plan; Transportation Noise and Vibration Studies; Technical Noise Supplement
- Caltrans: Airport Land Use Planning Handbook

Local regulations influencing noise levels or applicable within the unincorporated area with regard to noise, include:

- Watsonville Municipal Airport Master Plan
- County of Santa Cruz Land Use Element: Airport Land Use Compatibility and Safety
- County of Santa Cruz Noise Ordinance (Chapter 8.30)
- Various sections of the Santa Cruz County Code addressing various land uses and other regulated activities.

UNDERSTANDING NOISE AND HOW IT AFFECTS US

Evaluation of Noise

Noise is commonly defined as annoying or unwanted sound. Health studies have shown that excessive noise can cause adverse psychological or physiological effects on human beings. The typical effects of environmental noise on people are summarized below.

- **Sleep interference** is a major concern with respect to transportation-generated noise. Studies have identified interior noise levels attributed to transportation noise as a key factor of sleep disturbance. Sleep disturbance does not only equate to awakening from sleep; rather, it can refer to disruption of the sleep pattern and stages of sleep. Train noise during sleep hours can be a common source of complaints.
- **Speech interference** is one of the primary concerns associated with environmental noise. Normal conversational speech is in the range of 60 to 66 dB (at 3 feet away). Steady elevated noise levels can interfere with speech. Depending on the distance between the speaker and the listener, raised voice levels may be required to overcome the background noise, such as with music in a nightclub.
- **Annoyance** is the most difficult of all noise responses to describe. Annoyance can vary widely from person to person. What one person considers acceptable can be objectionable to another of equal hearing capability. For example, some people like the sounds of trains or music, while others do not.
- **Physiological responses** are those measurable noise effects on the human body, such as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent to which these physiological responses cause harm or are a sign of harm is not known and can vary among individuals.

Defining thresholds over which noise can be considered of concern, and establishing a fair and effective regulatory scheme to consider and address noise, requires an understanding of some of the basic characteristics of sound and how it affects people and their activities.

"Sound" is defined as an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium. Regarding human perception, "sound" is the auditory sensation evoked by such oscillation in air pressure. The description of sound may include several characteristics, including the frequency spectrum, the intensity or level, and the time-varying character of sound. **Definitions** of several related acoustical terms are listed in **Appendix A**.

Frequency Spectrum

The "frequency" of a sound refers to the number of complete pressure fluctuations per second. Subjectively, a sound that has more cycles per second than another is higher pitched. The unit of measurement is cycles per second (cps) or hertz (Hz). Most of the sounds heard in the environment do not consist of a single frequency, but rather of a broad band of frequencies, differing in level. The frequency and level content of a sound is called its sound spectrum.

To permit comparisons of sounds having quite different spectra, frequency weighting methods have been devised to correlate with human response (i.e., perceived loudness). "A-weighting" progressively de-emphasizes the importance of frequency components below 1,000 Hz and above 5,000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range. The unit of A-weighted sound levels is sometimes abbreviated "dBA."

Level of Sound

The intensity of sound is an important characteristic in our evaluation of sound. Subjectively, a sound is described as louder if it has greater amplitude (or level) than another sound. It has been found that the human ear responds logarithmically to changes in sound pressure levels. Therefore, sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. A decibel is a logarithmic unit used to describe the intensity or level of a sound with respect to a standardized reference sound level. Table 9-1 (Typical Noise Levels) describes common noise sources for indoor and outdoor noise levels.

With regard to increases in environmental noise level, knowledge of the following relationships will be helpful:

- Except in carefully controlled laboratory experiments, a change of only **1 dB** in sound level cannot be perceived.
- Outside of the laboratory, a **3 dB** change is considered a just-noticeable difference.
- A change in level of at least **5 dB** is required before any noticeable change in community response would be expected.

Table 9-1: Typical Noise Levels

Common Outdoor Activities	Noise Levels (dBA)	Common Indoor Activities
	110	Rock Band
Jet Fly-over at 1,000 feet	105	
	100	
Gas lawnmower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime	75	
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher in next room
	45	
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	35	
	30	Library
Quiet rural nighttime	25	Bedroom at night, concert hall (background)
	20	
	15	Broadcast/recording studio
	10	
	5	
	0	

Source: California Department of Transportation, Technical; Noise Supplement to the Traffic Analysis Protocol, September 2013

- A **10 dB** change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.

Sound levels do not combine arithmetically. Instead, they sum logarithmically, in a manner similar to the Richter scale, which is used for measuring the intensity of earthquakes. The following two examples illustrate this:

- If the existing noise level at a particular location is 60 dB, and a new source of sound with a similar spectrum is introduced that also measures 60 dB, the result is not 120 dB; it is 63 dB.
- If the existing noise level at a particular location is 60 dB, and a new sound source with a similar spectrum is introduced that measures 50 dB, the result is not 110 dB; it is still 60 dB. The new source is so much quieter than the existing one that it does not significantly contribute to the resulting sound level.

Variation of Sound with Time and Distance

Although a single sound level value can adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady noise having no identifiable source. These distant sources could include traffic, wind in trees, or continuous industrial processes and are relatively constant from moment to moment but usually vary from hour to hour with community activities (e.g., traffic levels). Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These might include nearby activities such as single vehicle pass-bys, train horns, or aircraft flyovers that cause the environmental noise level to vary from moment to moment.

Community Noise Level Metrics

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L_{10}" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period and is considered a good measure of typical maximum sound levels caused by discrete noise events. The "L_{90}" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is often used to describe ambient noise.

A single number metric called "L_{eq}" is also widely used. The term "L_{eq}" originated from the concept of a so-called Equivalent Sound Level that contains the same acoustical energy as a varying sound level during the same time period. In other words, the L_{eq} is the average A-weighted sound level in a stated time period.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior noise levels are generally lower than in the daytime. However, most household noise also decreases at night; thus, exterior noise intrusions become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the DNL (Day-Night Average Sound Level), which represents the 24-hour average sound level with a 10 dB "penalty" for noise occurring at night. A very similar metric, CNEL (Community Noise Equivalent Level) is also used. CNEL also includes a 5 dB penalty for noise occurring in evening hours.

Sound Propagation and Attenuation

As sound propagates away from a source, the level decreases (or attenuates) with increasing distance. In general, sound radiating from a single object (called a "point" source), like a train horn or equipment fan, is reduced by 6 dB for every doubling of distance. Noise radiating from a long single source or long continuous series of similar sources (called a "line" source) is attenuated by 3 dB for every doubling of distance. A roadway with varying levels of continuous traffic behaves similar to a line source with noise levels attenuated by between 3 and 4.5 dB per doubling of distance in typical conditions. Noise levels can also be reduced by intervening structures. For example, a noise barrier wall or even a single row of buildings

between the receptor and the noise source reduces the noise level by about 5 dB to 10 dB. Structures also act to insulate people inside these structures from exterior noise. Common home construction methods generally provide a reduction of exterior-to-interior noise levels of about 20 dB to 30 dB with closed windows.

EXISTING NOISE IN UNINCORPORATED SANTA CRUZ COUNTY

Transportation-Related Noise

Ambient noise levels vary throughout unincorporated Santa Cruz County, and differ between urban and rural settings. Noise sources in Santa Cruz County are primarily associated with transportation facilities, such as noise in the vicinity of major roadways, airports and railroads. These sources located within the County include the following:

Highway and Local Roadway Noise

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 sound walls and terrain.

Highway Noise

Highways are a major noise source in many jurisdictions. As shown on Figures 9-1a and 9-1b, Noise contours for the 60 CNEL can extend as far as 1,800 feet from Highway 1 between Soquel Drive to Rio Del Mar Boulevard ramps. To address highway noise along long-established routes, the California Department of Transportation (Caltrans) has a priority program and a policy to put sound walls along freeways and highways located adjacent to residential areas. If a jurisdiction wishes to mitigate highway noise before scheduled and funded Caltrans improvements are planned, that jurisdiction can fund sound walls or other mitigating elements, with Caltrans later providing reimbursement in accordance with its priority plan. The majority of sound walls recently constructed have been along SR-1 within the cities of Santa Cruz and Capitola. Although sound walls reduce noise impacts, highway noise will remain an issue for noise-sensitive land uses, particularly for residential development.

Local Roadway Noise

During peak travel hours, heavy travel volumes on unincorporated Santa Cruz County streets results in higher noise levels compared to noise levels during non-peak hours. The most heavily traveled roadways include the Soquel Avenue/Drive corridor, Freedom Boulevard, San Andreas Road, State Park Drive, Rio Del Mar Boulevard, Graham Hill Road, Capitola Road, Eaton Street, Portola Drive, Soquel Avenue, 7th Avenue, 17th Avenue, 41st Avenue, East Cliff Drive, Airport Boulevard, Green Valley Road and Holohan Road. Some but not all of these roadways have been designed to carry large volumes, and long established land use patterns have placed residential uses along some portions of these streets. Figures 9-1a and 9-1b provide existing roadway noise contours for the Year 2017.

Railroad Noise

Noise associated with railroad operations is caused by diesel engines, rolling wheels, 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 usually blown in advance of at-grade crossings.

Although freight service is offered, railroad operations in Santa Cruz County consist primarily of seasonal and recreational passenger rail service provided by Santa Cruz Big Trees & Pacific Railway on the Felton Branch Rail Line, and the Santa Cruz and Monterey Bay Railway on the Santa Cruz Branch Line that is owned by the Santa Cruz County Regional Transportation Commission (RTC). Relatively few trains

currently operate on either the Felton Branch Line or the Santa Cruz Branch Line due to the seasonal and recreational nature of the operations. These trains operate primarily during the summer and during the year-end holidays.

Passenger rail service could operate at some point in the future between Watsonville and Santa Cruz. However, this will depend on many factors including available funding for both construction and operations, and whether adequate ridership is anticipated for fiscal sustainability of the service. If passenger rail service occurs, then ground-borne vibration will be a planning and design consideration. Meanwhile, unincorporated Santa Cruz County residents living near either the Santa Cruz Branch Line or the Felton Branch line are both currently and for the foreseeable future expected to be exposed to minimal railroad noise and vibration, due to infrequent rail operations.

Airport Noise

No commercial airports are located within unincorporated Santa Cruz County. The sole general aviation airport, Watsonville Municipal Airport, is located at the boundary of the unincorporated area within the City of Watsonville. Aircraft from airports in other counties also fly over the County of Santa Cruz. Thus, aircraft overflight noise is audible within the County. Flight paths are determined by the Federal Aviation Administration (FAA). The State of California uses the CNEL descriptor to describe land use compatibility with respect to aircraft noise exposures. The California airport noise compatibility criterion for residential land uses is 65 dB CNEL. See Chapter 2 Land Use Element, Section 2.2.25 Airport Land Use Compatibility for a comprehensive set of policies, including policies addressing aircraft noise.

At the Watsonville Airport, the four runways (2-20 and 9-27) accommodate over 55,000 operations per year including an estimated 5,000 instrument approaches. According to the 2003 Watsonville Municipal Airport Master Plan, noise contours for both existing and forecasted operations for the year 2020, show the 65 CNEL contour to be mostly within airport property (Figures 9-3 and 9-4). However, the 65 CNEL contour line does encroach into certain residential areas located to the north and west of the Airport property, within unincorporated Santa Cruz County residential areas (Figure 9-4). The Watsonville Municipal Airport is currently updating the adopted 2003 Airport Master Plan, which is expected to be completed by 2020.

At residential receptors within Santa Cruz County, noise levels from aircraft of all other airports located outside the County of Santa Cruz are below the State 65 dB CNEL standard (based on published noise contour maps for the nearest airports).

Non-Transportation Related Noise

Non-transportation-related noise generators are commonly called “stationary,” “fixed,” “area,” or “point” sources of noise. These typically include noise generated by industrial, mining and commercial areas, as well as activities including construction and the operation of mechanical equipment. Several of these are described below:

Agricultural Operations

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. However, residents living within agricultural areas are typically either involved with the agricultural industry, or were informed of and accepted the noise levels that occur within agricultural areas when they elected to live in an agricultural area. In Santa Cruz County, accommodation of the agricultural industry is a priority, and residents are expected to accept the typical noise levels of the industry. Noise generated by winery operations is subject to special standards in the SCCC Chapter 13.10 Zoning Ordinance, and noise generated by normal and customary farming operations

on Commercial Agricultural properties is exempt from regulations of the SCCC Chapter 8.30 Noise Ordinance pertaining to unlawful noise.

Mining

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. Santa Cruz County contains four active quarries (another three are in the process of reclamation and another has completed reclamation); each is operating in accordance with conditions of approval of their mining plans which include restrictions on time of operations and other site-specific noise reduction strategies. Noise generated by quarries and mining activities is subject to special standards in the SCCC Chapter 16.54 Mining Regulations.

Heavy Industrial Noise

Noise generated by industrial and commercial operations, maintenance, manufacturing, truck traffic (loading docks), and warehousing can affect surrounding noise sensitive land uses. Industrial operations often involve use of mechanical equipment, generators and vehicles that contribute to noise levels at industrial sites, particularly for outdoor activities. Santa Cruz County contains few heavy commercial operations; the CEMEX cement plant ceased making cement in 2010 and it is not expected that any other heavy industrial use will occur as site reuse.

Light Industrial and Commercial Noise

Noise generated by light industrial, heavy/service commercial operations and office workplace areas, can include sounds associated with maintenance, manufacturing, truck traffic (loading docks), and warehousing, and these can affect surrounding noise sensitive land uses. In Santa Cruz County, these types of uses primarily occur on properties located along the Soquel Avenue/Drive corridor and Upper 41st Avenue, as well as in South County both within and near agricultural areas. At some locations, residential areas exist adjacent to these commercial areas, which requires careful attention to site planning, building design and operational conditions.

Construction Noise

Construction noise typically generates the loudest noise events commonly experienced by residents, which is associated with building demolition, grading, construction, large diesel engines, and truck deliveries and hauling. Construction activity, although temporary at any given location, can be substantially disruptive to adjacent uses during the construction period.

Some noise-generating activities such as blasting or pile-driving as part of construction operations may also result in excessive levels of ground-borne vibration that may affect nearby land uses.

Mechanical Equipment Noise

The motors, pumps and fans that cool and heat buildings produce point-source noise that most directly affects adjacent land uses. Frequently, this equipment includes components of pure tone noise from the rotational frequency of motors. Although noise levels are generally low from these sources, the fact that such sources may operate continuously and may include pure tones that make them audible at a substantial distance creates potential for conflict.

Portable Power Equipment

Leaf blowers, lawn mowers, portable generators, electric saws and drills and other similar equipment frequently create noise during daylight hours. Such disruptions to the ambient sound environment are

ubiquitous in the modern suburb and can, temporarily, produce very high noise levels at the location of the work.

Amplified Sound

Amplified sound includes noise from personal or home audio equipment, automotive audio equipment, outdoor loudspeakers such as those used for paging, and amplified sound at music or theatrical performances. Because this sound typically includes music or speech, it is potentially more detectable and more annoying to some people and sensitive receptors than other sounds of the same noise level. Careful consideration is needed when considering whether or not to allow amplified music at special events and for temporary uses.

The Santa Cruz County Noise Ordinance (SCCC 8.30) defines and prohibits offensive noise. The ordinance includes standards which provide the Sheriff with criteria to assess noise complaints and enforce excessive noise violations. While the Noise Ordinance provides the Sheriff with tools to address the thousands of noise-related complaints received annually, it is the responsibility of the Planning Department to ensure that new development is located and designed to be compatible with the existing and future noise environment and that new development does not cause significant degradation of the existing noise environment. The Noise Element provides general standards for new development and various sections of the County code include separate standards for specific type of land uses such as wineries and quarries, and areas around the Watsonville Municipal Airport. Santa Cruz County Code Chapter 13.15 Noise Planning implements the Noise Element by apply noise policies and standards in the land use permitting process.

FUTURE NOISE CONDITIONS

The most significant noise sources in unincorporated Santa Cruz County — local roadways, highways, railways, and the Watsonville Municipal Airport — will continue generating noise into the future. Figures 9-2a and 9-2b (2040 Traffic Noise) show the projected noise contours for the year 2040 largely attributable to roadway and highway traffic. Due to a reasonably foreseeable condition of continued limited railroad activity within the unincorporated County by 2040, projected noise contours from railroad activity have not been mapped. The noise contours in Figures 9-1a, 9-1b, 9-2a, and 9-2b provide information to assist the County in planning and permitting of new land uses and developments. Estimated future traffic noise increases are based on the adopted AMBAG 2014 Regional Growth Forecast (0.4% per year) for the unincorporated County and the Caltrans estimate of 1% growth per year on state highways. The estimates result in a projected increase in traffic noise of approximately 1 dB by the year 2040 over current levels.

COUNTY APPROACH TO NOISE CONTROL

Noise control in Santa Cruz County is addressed via planning, permitting, and enforcement processes. Primarily, the County will utilize the following standards in making land use planning and permitting decisions related to the County noise environment, including requiring mitigations or conditions of approval for new uses and developments as warranted.

- State of California Title 24 Noise Insulation Standards
- County Noise Compatibility Guidelines outlined in Table 9-2, *Acceptable through Unacceptable Ranges of Exterior Noise Exposure by Land Use*
- County Code Chapter 8.30 Noise Ordinance
- Related goals and policies of the County General Plan, such as the Airport Land Use Compatibility policies within the General Plan Land Use Element
- Various sections of the Santa Cruz County Code addressing various land uses and other regulated activities

These standards will be used to address concerns of noise exposure on new development and from noise sources on existing noise-sensitive receptors.

Noise Sensitive Land Uses

Noise-Sensitive Land Uses (also known as "sensitive receptors"). The term "noise-sensitive land uses" refers to land use types that are particularly sensitive to noise at levels commonly found in the urban environment. This category includes residential uses, schools and hospitals. Other uses also are carefully planned and designed to ensure appropriate sound levels for the use, including churches, convalescent care facilities, and hotels.

Noise to be Received by New Development

The Noise Compatibility Guidelines of Table 9-2 provide exterior noise standards in terms of the DNL or the CNEL metrics. Levels of acceptable noise exposure are based on the sensitivity of specific land uses. The Noise Compatibility Guidelines recognize and respond to the many different noise environments that exist in the County: the relative quiet within rural areas, the noise from equipment operating within agricultural areas that can occur within extended hours of operation, the sounds of suburban neighborhoods, and the sounds commonly generated within higher activity areas such as along transportation corridors.

Interior noise levels for new residential development, regardless of location, are required to comply with standards set forth in Title 24 of the State Building Code. New construction may need to incorporate special insulation, windows, and sealants in order to ensure that interior noise levels meet Title 24 standards. Non-residential development located near significant sources of environmental noise are also subject to interior noise standards of the State of California Green Building Code (CALGreen).

New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be incorporated and employed to reduce noise impacts (noise to be received by the new development) to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Noise to be Generated by New Development

The Noise Compatibility Guidelines also apply to noise that would be generated by a proposed new development that would be transmitted to nearby noise-sensitive receptors. Evaluation of the noise exposure would be based on the land-use category of the noise receptor.

New development also has the potential to increase ambient noise levels of the existing environment. Where the expected noise increase would be substantial, appropriate noise mitigation measures would need to be developed, as feasible.

Also, if a proposed use or development includes fixed noise sources that are subject to noise limits of the County Code, then noise impacts and appropriate mitigation will be identified and incorporated into project design to reduce noise to meet those limits and reduce impacts on nearby sensitive receptors.

Noise Generated by Events and Activities in the Community, including Nuisance Violations

Less related to land use planning and permitting for new developments, is the matter of periodic noise events, both sanctioned (e.g. permitted under a special event permit) and unsanctioned (e.g. violations of the noise ordinance from noise disruptions or offensive and/or intrusive levels of noise generated at a property). Under certain conditions, periodic noises have the potential to violate established standards and thus be considered an unlawful violation of the noise ordinance. The County Noise Ordinance (SCCC Chapter 8.3) includes standards to determine if noise transfer across property lines is offensive noise. Conditions or events of unacceptable noise that violate the Noise Ordinance can lead to prosecution as a misdemeanor or as an infraction. Enforcement of the standards in the County Noise Ordinance addresses

nuisance noise violations such as loud birds and animals, loud audio equipment, domestic power tools, vehicle repair and testing, powered motor vehicles and construction activities that are used or carried out in manners inconsistent with the noise ordinance.

Noise in the County of Santa Cruz is generated by a variety of sources. Evaluation of noise exposure may take into account the nature of the sources and receivers under consideration. For example, community uses and events within residential neighborhoods may be desirable features or occasionally acceptable, even though such uses may have an ongoing or periodic noise characteristic that varies from typical residential area conditions.

Transportation-Related Noise Control

Certain noise sources within the unincorporated County, such as the Highway 1 and 17 corridors, are part of the fabric of the community and are here to stay. While noise from train operations is presently limited in season and duration, if the rail corridors were to be more heavily used in the future then noise and vibration impacts would be greater. However, due to funding constraints the County does not foresee this heavier-use rail noise and vibration condition to occur within the 2040 time horizon of this Element. The most efficient and effective means of controlling noise from transportation systems is to reduce noise at the source. However, the County has no direct control over noise produced by trucks, cars and trains because state and federal regulations preempt local laws. Given that the County cannot control transportation noise at the sources, County policies focus on reducing the impact of transportation noise along freeways, arterial roadways and rail corridors.

Strategic site planning, utilization of existing terrain, and the design and construction of noise barriers are the most common and effective method of alleviating vehicular traffic and train noise impacts. Setbacks and buffers can also be used to achieve noise reduction. Noise-attenuating berms and barriers can be incorporated into new development projects to reduce noise exposure. The effectiveness of the barrier will depend upon: 1) the relative height and materials of the barrier; 2) the noise source; 3) the affected area; and 4) the horizontal distance between the barrier and the affected area.

NOISE ELEMENT GOALS, OBJECTIVES AND POLICIES

Goal N-1 Noise Compatibility

Minimize noise impacts on human activity to ensure the health and safety of the community.

OBJECTIVE 9-1 Noise Exposure of New Development and Activities. Promote land use compatibility by addressing noise exposure that new development and activities will be exposed to, from existing and anticipated future noise sources.

Policy 9.1.1: Consider Table 9-2, *Acceptable through Unacceptable Ranges of Exterior Noise Exposure by Land Use* in the planning and permitting processes for new development, to reduce noise exposure on future occupants of the new development to acceptable noise levels.

Policy 9.1.2: Where noise sensitive developments would be exposed to noise levels that exceed those considered "normally acceptable," require the incorporation of noise reduction design elements as recommended by a site-specific acoustical study or using prescriptive or performance methods to reduce interior noise levels to the standards set forth in Title 24 of the California Code of Regulations for both residential and non-residential uses.

Policy 9.1.3: Noise levels in common outdoor use areas in multi-unit residential development should not exceed DNL 60 dB. Where this goal cannot be met by reasonable

measures, such as strategic site layout and noise barriers, DNL 65 dB might be considered acceptable. [Outdoor noise limits do not apply to private exterior balconies.]

Policy 9.1.4: Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that new sensitive uses may have to ground-borne vibration from trains.

OBJECTIVE 9-2 Noise Exposure of Existing Sensitive Land Uses and Receptors. Minimize exposure of existing noise-sensitive land uses and receptors to excessive, unsafe, or disruptive noise that may be generated by new land uses and development projects.

Policy 9.2.1: Require acoustical studies for all new development projects that may affect the existing noise environment affecting sensitive land uses and receptors and that may not conform to the Normally Acceptable Noise Exposure in Table 9-2.

Policy 9.2.2: Require site-design and noise reduction measures for any project, including transportation projects, that would cause significant degradation of the noise environment due to project effects that could:

(a) Increase the noise level at existing noise-sensitive receptors or areas by 5 dB or more, where the post-project CNEL or DNL will remain equal to or below 60 dB;
(b) Increase the noise level at existing noise-sensitive receptors or areas by 3 dB or more, where the post-project CNEL or DNL would exceed 60 dB;

This policy shall not be interpreted in a manner that would limit the ability of the County to require noise-related mitigation measures or conditions of approval for projects that may generate lesser increases than the above. Special consideration may also be applied to special events or activities subject to permit requirements, or to land use development permits for uses and activities exempted from County noise control regulations.

Policy 9.2.3: Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas.

Policy 9.2.4: For all new commercial and industrial developments which would increase noise levels above the normally acceptable standards in Table 9-2 or the maximum allowable standards in Table 9-3, the best available control technologies shall be used to minimize noise levels. In no case shall the noise levels exceed the standards of Table 9-3.

Policy 9.2.5: The following noise mitigation strategies are preferable to construction of conventional masonry noise barriers where these strategies are a feasible option to reduce impacts on sensitive uses:

- Avoid placement of noise sensitive uses in noisy area.
- 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 (e.g. bedrooms) are shielded from noise sources (such as through careful design of floor plan).
- Use sound-attenuating architectural design and building features.
- Employ technologies that reduce noise generation such as alternate pavement materials on roadways, when appropriate.

- Employ traffic calming measures where appropriate.

Policy 9.2.6: Require mitigation and/or best management practices to reduce construction noise as a condition of project approvals, particularly if noise levels would exceed 75 dBA at neighboring sensitive land uses or if construction would occur for more than 7 days.

OBJECTIVE 9-3 Noise Generated by Operations of Wineries, Quarries and Other Special Uses or Periodic Activities. Recognize special conditions and establish specialized maximum noise standards for certain uses and activities that can occur in rural and agricultural areas with potential to affect noise sensitive areas or receptors; such as for noise levels associated with winery operations, quarries and mining activities, and other special uses, temporary uses, periodic activities, or other similar situations as identified by County Code or land use permitting regulations.

Policy 9.3.1: Discretionary Use Permits which are approved administratively for wineries will recognize the following sound schedule limitations measured twenty feet from the source: (a) maximum noise standard of 85 dba for a cumulative period of 15 minutes in any hour; (b) maximum noise standard of 90 dba for a cumulative period of 5 minutes in any hour; (c) maximum noise level of 100 dba at any time. These values apply during the day period and are reduced by 10 dba for the night period of 10 PM to 7 AM.

Policy 9.3.2: Discretionary Use Permits involving proposed noise levels that exceed the limitations of Policy 9.3.1 shall only be considered for approval through a public hearing process before either the Zoning Administrator or Planning Commission, depending on the nature of the winery in accordance with other applicable use permit requirements. The limits of Policy 9.3.1 shall apply unless different limits are set by conditions of approval of the use permit based upon the individual merits of the location and surroundings of the winery and proposed operations.

Policy 9.3.3: Facilities and equipment associated with quarries and mining operations shall be constructed, maintained and operated in compliance with conditions of permit approval, and this Policy 9.3.3; with the maximum noise level measured at the property boundaries to be no greater than 60 dba for a cumulative period of 15 minutes during any hour of operation. A lower noise level may be required by the Planning Commission if a health or safety effect or nuisance related to noise level is demonstrated. A higher noise level may be authorized by the Planning Commission if the increase in noise level is from construction related activity, the noise is generated only on a specified temporary basis, and all neighbors within 1,000 feet of the property boundaries have been notified in writing of the authorized increase in noise level by the operator.

Policy 9.3.4: The decision-maker or decision-making body taking action to approve a Special Event Permit, amplified sound permit, or other permit that authorizes special or periodic uses or activities that will generate noise that is not typical for the context of the proposed location, may impose conditions of approval that limit the maximum noise level, extent, duration, timing, operating hours, frequency, location or other aspect of the noise-generating use or activity. Special monitoring and reporting requirements regarding noise generation may also be imposed.

Table 9-2
Acceptable through Unacceptable Ranges of Noise Exposure by Land Use*
**Outdoor noise exposure measured at the property line of receiving land use*

	LAND USE	COMMUNITY NOISE EXPOSURE DNL or CNEL, dB					
		55	60	65	70	75	80
A	Residential/Lodging – Single Family, Duplex, Mobile Home, Multi Family, Motels, Hotels						
B	Schools, Libraries, Religious Institutions, Meeting Halls, Hospitals						
C	Outdoor Sports Arena or Facility, Playgrounds, Neighborhood Parks						
D	Office Buildings, Business Commercial and Professional						
E	Industrial, Manufacturing, Utilities, Agriculture						

NORMALLY ACCEPTABLE:
Specific 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 standards.

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 to meet interior and exterior noise standards, where applicable.

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 meet interior and exterior noise standards, where applicable.

CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken.

Based on Draft General Plan Guidelines published by the California State Office of Planning and Research, 2014.

Table 9-3 Maximum Allowable Noise Exposure Stationary Noise Sources[1]		
	Daytime[5] (7 AM to 10 PM)	Nighttime[2,5] (10 PM to 7 AM)
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 operate 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) 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.

Goal N-2 Transportation Noise

Reduce the effects of noise generated by transportation sources to the extent feasible.

OBJECTIVE 9-4 Ground Transportation-Related Noise. Minimize ground transportation-related noise impacts.

Policy 9.4-1: Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

Policy 9.4.2: Utilize the latest noise-reducing techniques for County road surfacing and maintenance.

Policy 9.4.3: Continue to consider noise concerns in evaluating all proposed development decisions related to roadway and other transportation projects.

OBJECTIVE 9.5 Aircraft Noise. Minimize the adverse effects of Watsonville Municipal Airport-related noise through proper land use planning. See Chapter 2 Land Use Element, Section 2.2.25 Airport Land Use Compatibility for a comprehensive set of policies, including policies addressing aircraft noise.

Policy 9.5.1: Limit single-family residential development to no more than one dwelling and an accessory dwelling unit on an existing parcel or lot of record where the existing or future aircraft noise exceeds 65 CNEL or L_{dn} (see Figure 9-4).

Policy 9.5.2: Require all discretionary residential and non-residential development proposed within the 60 CNEL or L_{dn} aircraft noise contour (see Figure 9-4) 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. Dedication of an

avigation easement for aircraft noise is required as a condition of approval of any proposed development situation within the CNEL 60 dB contour.

Goal N-3 Nuisance Noise and Enforcement

Enforce adopted noise standards of a noise ordinance that clearly identifies offensive noise, and that establishes parameters and criteria for determinations about violations of applicable regulations of the Noise Ordinance due to generation of offensive noise. Develop a separate noise planning ordinance that provides procedures and standards to apply in the land use permitting process.

OBJECTIVE 9-6 Adopt and Enforce Noise Ordinance. Adopt and enforce a noise ordinance that implements this Noise Element and provides clear standards for enforcement of offensive noise, and which also provides for reasonable flexibility and noise exceptions to address agricultural activities and other activities regulated by other sections of the County Code. Adopt a separate noise planning ordinance

Policy 9.6.1: Establish a set factors in the noise ordinance for county enforcement officials to use in making determinations about noise violations, in order to support effective enforcement of the standards, including through the use of court action as warranted.

Policy 9.6.2: Enforce the County of Santa Cruz Noise Ordinance to ensure that stationary noise and noise emanating from construction activities, private developments and special events are minimized and that unlawful noise-generating activities are subject to enforcement.

Policy 9.6.3: Establish procedures and standards in a separate noise planning ordinance to implement this Noise Element in the land use permitting process. Include a list of exempt activities including construction noise, standards for emergency generators, air conditioning and mechanical units, and standards and procedures for project review of noise generating land uses, and protection of new development from existing noise. Require acknowledgement of potential impact from rail vibration

Policy 9.6.4: Continue to enforce noise abatement and control measures that have been required, designed and incorporated into development projects, particularly within or adjacent to residential neighborhoods and sensitive receptors

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Figure 9-1a: Existing Highway and Roadway Noise Contours for the Year 2017

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Highway and Local Roadway Exisiting Noise Contours

Santa Cruz County General Plan

Legend

- DNL 55 to 60 dB
- DNL 60 to 65 dB
- DNL 65 to 70 dB
- DNL 70 to 75 dB
- DNL 75 to 80 dB
- DNL 80 to 85 dB
- General Plan Boundaries

SAN MATEO COUNTY
SANTA CLARA COUNTY
MONTEREY COUNTY
SAN BENITO COUNTY
Pacific Ocean
Monterey Bay
Castle Rock State Park
Las Cumbres
SKYLINE
Big Basin State Park
NORTH COAST
Boulder Creek
SAN LORENZO VALLEY
Brookdale
Lompico
Zayante
Ben Lomond
Swanton
Felton
Bonny Doon
Davenport
BONNY DOON
Scotts Valley
CARBONERA
Forest of Nisene Marks
SUMMIT
EUREKA CANYON
APTOS HILLS
Corralitos
SOQUEL
Soquel
LIVE OAK
Capitola
APTOS
Aptos
Live Oak
Santa Cruz
Dominican Hospital Heliport
Ocean Speedway
Freedom
Salsipuedes
SALSIPUEDES
PAJARO VALLEY
La Selva
LA SELVA
Seascape
Watsonville
Aromas
Pajaro Dunes
SAN ANDREAS
Waddell Beach
Greyhound Rock Beach
Scott Creek Beach
Bonny Doon Beach
Table Rock Beach
Natural Bridges State Beach
Lighthouse Point
Main Beach
Twin Lakes State Beach
Pleasure Point
New Brighton State Beach
Seacliff State Beach
Rio Del Mar Beach
Manresa State Beach
Sunset State Beach
Palm Beach
CHINA GRADE RD
KINGS CREEK RD
TWO BAR RD
EMPIRE GRADE
ALBA RD
E ZAYANTE RD
GLENWOOD DR
SOQUEL SAN JOSE RD
SUMMIT RD
LOMA PRIETA WY
HIGHLAND WY
SWANTON RD
PINE FLAT RD
FELTON EMPIRE RD
VINE HILL RD
LAUREL GLEN RD
GRANITE CREEK RD
BRANCIFORTE DR
BONNY DOON RD
SMITH GRADE
HUBER LN
CATHEDRAL DR
TROUT GULCH RD
EUREKA CANYON RD
HAZEL DELL RD
GREEN VALLEY RD
MT MADONNA RD
CASSERLY RD
HIGH ST
OCEAN ST
SOQUEL AV
SOQUEL DR
SUMMER AV
BONITA DR
WHITE RD
FREEDOM BL
AMESTI RD
LARKIN VALLEY RD
AIRPORT BL
HOLOHAN RD
CARLTON RD
MAIN ST
SAN ANDREAS RD
Dominican Hospital Heliport
Ocean Speedway
N
0 2 4
Miles

Source: County of Santa Cruz and Charles M. Salter Associates, Inc., 2017

084-17

Figure 9-1a

Figure 9-1b: Existing Highway and Roadway Noise Contours for the Year 2017 (Expanded)

Page intentionally left blank.

Highway and Local Roadway Exisiting Noise Contours (expanded)

Santa Cruz County General Plan

SAN LORENZO VALLEY
SIMS RD
GRAHAM HILL RD
CARBONERA
GLEN CANYON RD
BRANCIFORTE DR
UPPER PARK RD
BROOKWOOD DR
PAUL SWEET RD
ISBEL DR
CARBONERA
PROSPECT HEIGHTS
MORRISSEY BL
Dominican Hospital Heliport
NORTH RODEO GULCH
SOQUEL
SOQUEL SAN JOSE RD
MAIN ST
PORTER GULCH RD
APTOS
OCEAN ST EXT
RIVER ST
MARKET ST
BRANCIFORTE AV
SOQUEL DR
SOQUEL AV
17TH AV
LA FONDA AV
CAPITOLA RD EXT
PORTER ST
MONTEREY AV
PARK AV
MC GREGOR DR
MAR VISTA DR
SPRING ST
HIGH ST
NORTH BRANCH
WATER ST
SEABRIGHT AV
FREDERICK ST
LIVE OAK
CAPITOLA RD
CLARES ST
BAY AV
ESCALONA DR
KING ST
MISSION ST
WALNUT AV
CENTER ST
FRONT ST
BROADWAY
BARSON ST
EAST CLIFF DR
7TH AV
17TH AV
BROMMER ST
30TH AV
41ST AV
JADE ST
CAPITOLA AV
SEACLIFF DR
LAKE AV
MURRAY ST
PACIFIC AV
2ND ST
BEACH ST
BAY ST
PORTOLA DR
OPAL CLIFF DR
CLIFF DR
FAIR AV
ALMAR AV
DELAWARE AV
PELTON AV
WEST CLIFF DR

Legend

- DNL 55 to 60 dB
- DNL 60 to 65 dB
- DNL 65 to 70 dB
- DNL 70 to 75 dB
- DNL 75 to 80 dB
- DNL 80 to 85 dB
- General Plan Boundaries

N

0 0.5 1 2 Miles

Source: County of Santa Cruz and Charles M. Salter Associates, Inc., 2017

Figure 9-1b

084-17

Figure 9-2a: Future (2040) Highway and Roadway Noise Contours

Page intentionally left blank.

Highway and Local Roadway Future (2040) Noise Contours

Santa Cruz County General Plan

Legend

- DNL 55 to 60 dB
- DNL 60 to 65 dB
- DNL 65 to 70 dB
- DNL 70 to 75 dB
- DNL 75 to 80 dB
- DNL 80 to 85 dB
- General Plan Boundaries

SAN MATEO COUNTY

SANTA CLARA COUNTY

MONTEREY COUNTY

SAN BENITO COUNTY

Castle Rock State Park

Las Cumbres

SKYLINE

CHINA GRADE RD

KINGS CREEK RD

TWO BAR RD

Big Basin State Park

NORTH COAST

EMPIRE GRADE

Boulder Creek

SAN LORENZO VALLEY

Brookdale

Lompico

E ZAYANTE RD

GLENWOOD DR

SUMMIT RD

SOQUEL SAN JOSE RD

LOMA PRIETA WY

HIGHLAND WY

SUMMIT

ALBA RD

Ben Lomond

Zayante

Waddell Beach

Greyhound Rock Beach

SWANTON RD

Swanton

PINE FLAT RD

FELTON EMPIRE RD

Felton

Bonny Doon

Scotts Valley

GRANITE CREEK RD

BRANCIFORTE DR

LAUREL GLEN RD

VINE HILL RD

Forest of Nisene Marks

Scott Creek Beach

Davenport

BONNY DOON RD

BONNY DOON

SMITH GRADE

EMPIRE GRADE

CARBONERA

EUREKA CANYON

HAZEL DELL RD

EUREKA CANYON RD

GREEN VALLEY RD

MT MADONNA RD

APTOS HILLS

Corralitos

CATHEDRAL DR

TROUT GULCH RD

HUBER LN

Soquel

SOQUEL DR

SOQUEL AV

LIVE OAK

APTOS

Aptos

Capitola

Live Oak

Dominican Hospital Heliport

Bonny Doon Beach

HIGH ST

OCEAN ST

Santa Cruz

Main Beach

Twin Lakes State Beach

Pleasure Point

New Brighton State Beach

SUMMER AV

BONITA DR

WHITE RD

FREEDOM BL

AMESTI RD

CASSERLY RD

Ocean Speedway

Salsipuedes

Freedom

HOLOHAN RD

CARLTON RD

Table Rock Beach

Natural Bridges State Beach

Lighthouse Point

Seacliff State Beach

LA SELVA

Seascape

LARKIN VALLEY RD

AIRPORT BL

PAJARO VALLEY

SALSIPUEDES

Rio Del Mar Beach

La Selva

MAIN ST

Aromas

Manresa State Beach

SAN ANDREAS RD

SAN ANDREAS

Watsonville

Sunset State Beach

Pajaro Dunes

Palm Beach

Pacific Ocean

Monterey Bay

N

0 2 4

Miles

Source: County of Santa Cruz and Charles M. Salter Associates, Inc., 2017

Figure 9-2a

084-17

Figure 9-2b: Future (2040) Highway and Roadway Noise Contours (Expanded)

Page intentionally left blank.

Highway and Local Roadway Future (2040) Noise Contours (expanded)

Santa Cruz County General Plan

SAN LORENZO VALLEY
SIMS RD
GRAHAM HILL RD
CARBONERA
GLEN CANYON RD
BRANCIFORTE DR
UPPER PARK RD
BROOKWOOD DR
PAUL SWEET RD
THURBER LN
SAN JOSE RD
SOQUEL
APTOS
ISBEL DR
CARBONERA
PROSPECT HEIGHTS
Dominican Hospital Heliport
MORRISSEY BL
OCEAN ST EXT
RIVER ST
MARKET ST
OCEAN ST
WATER ST
17TH AV
SOQUEL AV
PORTER ST
SOQUEL
MAIN ST
MONTEREY AV
PARK AV
SOQUEL DR
MC GREGOR DR
CAPITOLA RD EXT
LIVE OAK
CLARES ST
BAY AV
CAPITOLA AV
SEACLIFF DR
HIGHLAND AV
HIGH ST
HIGH ST
ESCALONA DR
KING ST
MISSION ST
WALNUT AV
CENTER ST
FRONT ST
BARSON ST
SOUTH BRANCIFORTE
BROADWAY
7TH AV
17TH AV
CHANTICLEER AV
30TH AV
CAPITOLA RD
BROMMER ST
41ST AV
CLIFF DR
LEIBRANDT AV
MURRAY ST
LAKE AV
2ND ST
BEACH ST
BAY ST
RANKIN ST
PORTOLA DR
OPAL CLIFF DR
EAST CLIFF DR
30TH AV
FAIR AV
DELAWARE AV
PELTON AV
WEST CLIFF DR

N

0 0.5 1 2 Miles

Legend

- DNL 55 to 60 dB
- DNL 60 to 65 dB
- DNL 65 to 70 dB
- DNL 70 to 75 dB
- DNL 75 to 80 dB
- DNL 80 to 85 dB
- General Plan Boundaries

Source: County of Santa Cruz and Charles M. Salter Associates, Inc., 2017

Figure 9-2b

084-17

Figure 9-3: Existing Watsonville Municipal Airport Noise Contours for the Year 2010

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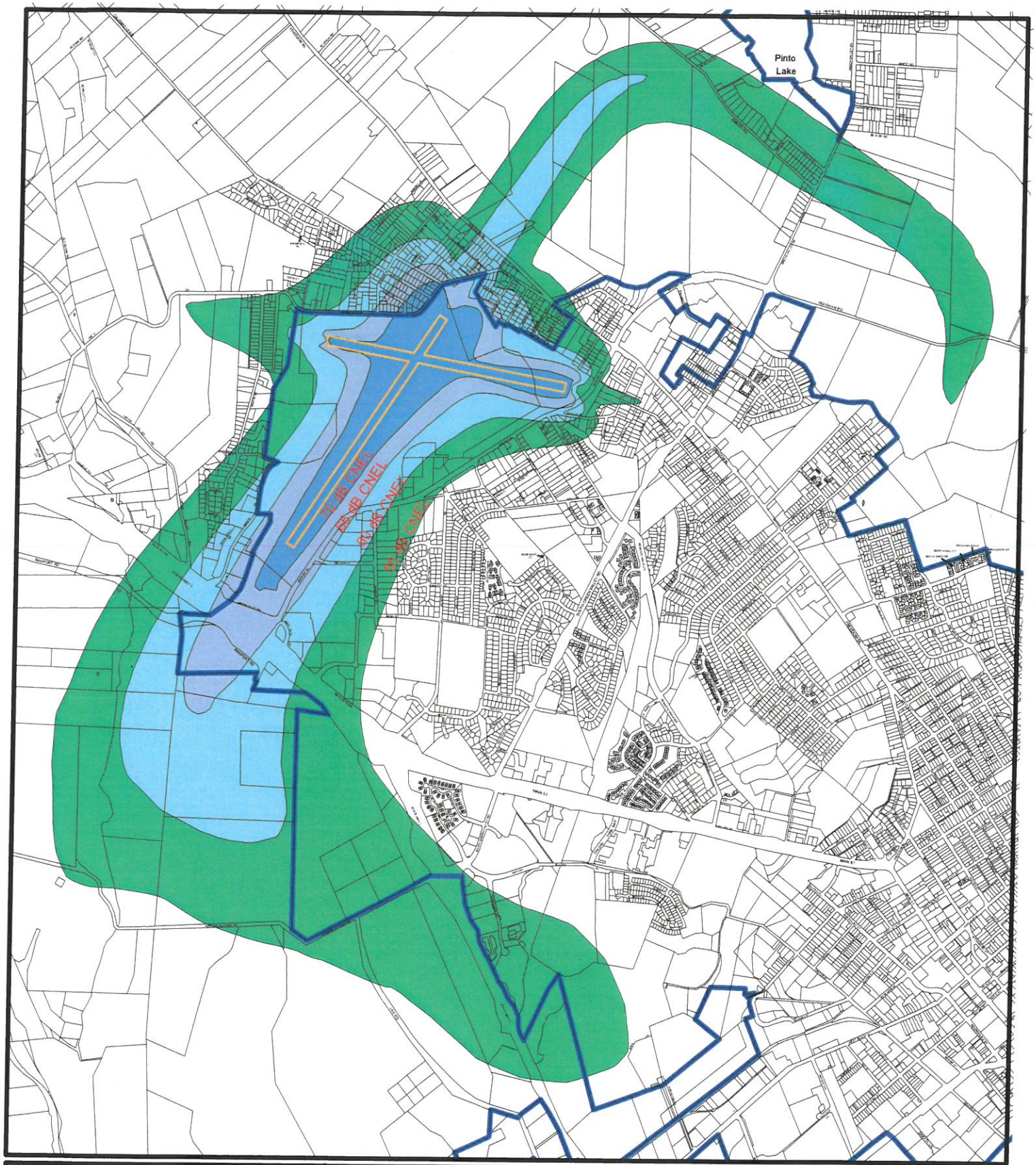

Legend

Parcel

Airport Runway

Watsonville City Limit

Noise Contours

55 dB CNEL

60 dB CNEL

65 dB CNEL

70 dB CNEL

Watsonville Municipal Airport
2010 Noise Contours

N

W E

S

Exhibit 11

Prepared By Watsonville GIS Center 11-7-01.

Figure 9-4: Future Watsonville Municipal Airport Noise Contours for the Year 2020

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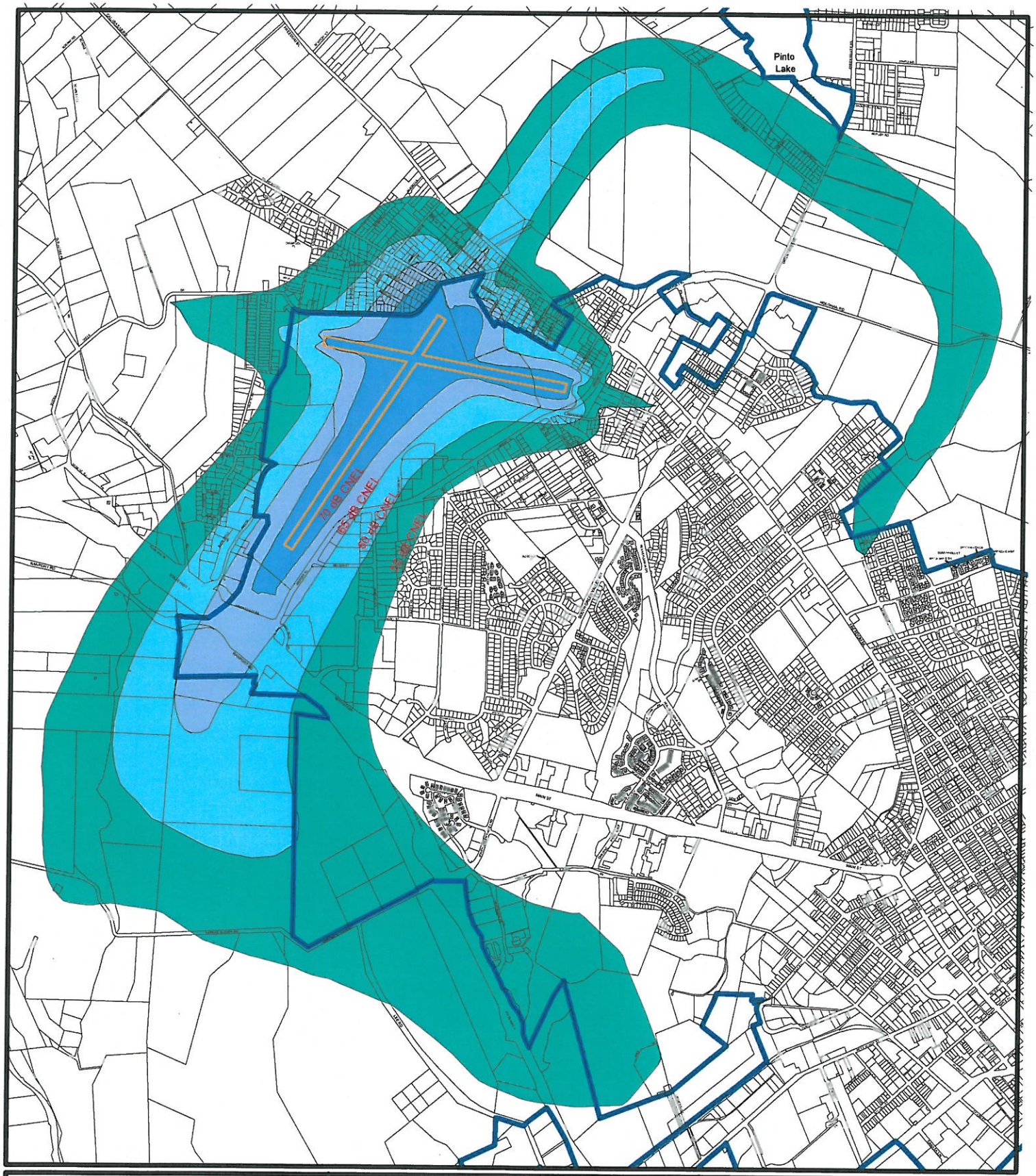

Legend

Parcel

Airport Runway

Watsonville City Limit

Noise Contours

55 dB CNEL

60 dB CNEL

65 dB CNEL

70 dB CNEL

Watsonville Municipal Airport
2020 Noise Contours

N

W E

S

Exhibit 12

Prepared By Watsonville GIS Center 11-7-01.

Attachment 6

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Chapter 13.12 Airport Combining Zone District	
Existing Requirements	• Current title is Chapter 13.12 Airport Approach Zones • Regulates the use of airspace near Watsonville Municipal Airport • Adopts map of safety zones (inner turning zones, outer turning zones, transition zones, instrument approach zones, and non-instrument approach zones) was adopted in 1963 • Sets height limits and use restrictions in safety zones that would interfere with airport operations • Establishes requirements for permits and variances
Proposed Amendments	• Includes requirements addressing safety, noise, airspace obstructions, and overflight • Includes detailed regulations for each Safety Zone (Runway Protection Zone, Inner Approach/Departure Zone, Inner Turning Zone, Outer Approach/Departure Zone, Sideline Zone, and Traffic Pattern Zone) • Detailed regulations addressing airspace obstructions • Requirement for property deed recordation acknowledging the impacts of aircraft overflight • Regulations addressing airport noise are found in Chapter 8.3 Noise
Reason	• As required by the Public Utilities Code 21670.1(e)(1) the County must incorporated the criteria in the Airport Land Use Planning Handbook, published by the California Department of Transportation Division of Aeronautics (2011), and any applicable federal aviation regulations, as part of the General Plan • Implements General Plan Chapter 2 Land Use
Environmental Evaluation	• No impact • Regulations are consistent with existing State law • In some cases, the updated regulations restrict land division that may otherwise be allowed by underlying General Plan and zoning designation

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Chapter 13.12

AIRPORT APPROACH ZONES

Sections:

13.12.010 Declaration of purpose.

Pursuant to the authority conferred by the Airport Approaches Zoning Law of the State of California and in conformity with Sections 50485 to 50485.14 and any successor provisions of the Government Code, the Board of Supervisors of the County of Santa Cruz, State of California, deems it necessary to regulate the use of airspace for the purpose of promoting the health, safety and general welfare of the inhabitants of the County of Santa Cruz by preventing the creation or establishment of airport hazards, thereby protecting the lives and property of the users of the Watsonville Municipal Airport and of the occupants of the land in its vicinity and preventing destruction and impairment of the utility of the airport and the public investment therein. [Ord. 4496-C § 67, 1998; Ord. 938, 1964].

13.12.020 Definitions.

As used in this chapter, unless the context otherwise requires:

"Airport" means the Watsonville Municipal Airport.

"Airport hazard" means any structure or tree or use of land which obstructs the airspace required for the flight of aircraft in landing or taking off at the airport or is otherwise hazardous to such landing or taking off of aircraft.

"Landing area" means the area of the airport used for the landing, take-off or taxiing of aircraft.

"Person" means any individual, firm, copartnership, corporation, company, association, joint stock association, city or county, or district, and includes any trustee, receiver, or assignee.

"Structure" means any object constructed or installed by man, including, but without limitation, buildings, towers, smokestacks and overhead lines.

"Tree" means any object of natural growth. [Ord. 938, 1964].

13.12.030 Zones.

In order to carry out the purposes of this chapter, all of the lands within the boundaries of the Watsonville Municipal Airport and within certain areas adjacent thereto of the landing area of the airport, are hereby

divided into inner turning zones, outer turning zones, transition zones, instrument approach zones, and noninstrument approach zones, boundaries of which are shown on the Watsonville Municipal Airport Zoning Map, dated December 11, 1963, which by this reference is incorporated herein and made a part of this chapter.

Watsonville Municipal Airport zoning map dated December 11, 1963, is hereby approved as the official map for zoning purposes and shall be on file in the Office of the County Clerk and is hereby made a part of this chapter, subject to amendments thereof made pursuant to law from time to time. Such amendments shall be entered on the official map and the same shall be maintained up to date at all times. [Ord. 938, 1964].

13.12.040 Height limit.

Except as otherwise provided in this chapter, no structure shall be erected, altered or maintained in any airport approach zone, transition zone or turning zone to a height in excess of the height limit herein established for each zone. For purposes of determining these height limits as hereinafter specified, the U.S. Coast and Geodetic Survey has established the official elevation reference of the Watsonville Municipal Airport to be 160 feet above mean sea level and all height limits will begin at said elevation. For the purposes of this regulation, the following height limits are hereby established for each of the zones in question:

(A) Inner Turning Zone: 150 feet.

(B) Outer Turning Zone: 150 feet at the inner perimeter and increasing in height at the ratio of one foot vertically to 20 feet horizontally to the outer perimeter.

(C) Transition Zone. The height to be determined within the boundaries of the transition zone by reference to Watsonville Municipal Airport Zoning Map at a ratio of 7:1 commencing at the boundary of the landing area.

(D) Noninstrument Approach Zones. The height to be determined within the boundaries of the noninstrument approach zones by reference to the Watsonville Municipal Airport Zoning Map and shall not exceed a height greater than permitted by a 20:1 glideslope and in no event to exceed a height greater than 150, starting 200 feet from the end of the runway in an outbound direction.

(E) Instrument Approach Zone. The height to be determined within the boundaries of the instrument approach zone by reference to the Watsonville Municipal Airport Zoning Map and shall not exceed a height greater than permitted by a 50:1 glideslope starting 200 feet from the end of the runway and extending 10,000 feet in an outbound direction and in no event shall the height of any structure or object of natural growth exceed 150 feet. [Ord. 938, 1964].

13.12.050 Use restrictions.

No use may be made of land within any airport approach zone, airport turning zone or airport transition zone, in such a manner as to create electrical interference with radio communication between the airport and aircraft nor the use of lights within said zone, making it difficult for pilots to distinguish between airport lights and other lights, resulting in glare in the eyes of the pilots using the airport, impairing visibility in the vicinity of the airport, or otherwise endangering the landing, takeoff or maneuvering of aircraft.

It shall be unlawful for any person whether as owner, principal, agent, or employee or otherwise to perform an action or allow a situation to continue that violates the provisions of this chapter or violates any permit conditions required pursuant to this chapter. All violations shall be enforced in accordance with the provisions of Chapter 18.10 SCCC except where specified elsewhere in this chapter. [Ord. 3433 § 1, 1983; Ord. 938, 1964].

13.12.060 Nonconforming uses.

The regulations prescribed in SCCC 13.12.040 and 13.12.050 shall not be construed to require the removal, lowering or other change or alteration of any structure or tree not conforming to the regulations as of the effective date hereof, or otherwise interfere with the continuance of any nonconforming use except as herein provided. Nothing herein contained shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of the ordinance codified in this chapter, and is diligently pursued and completed within a reasonable time thereof. [Ord. 938, 1964].

13.12.070 Administrative agency.

The Zoning Administrator is hereby designated as the administrative agency charged with the duty of administering and enforcing the regulations herein described. The duties of the Zoning Administrator shall include that of hearing and deciding all applications for permits and variances under the provisions of this chapter. Notices of all actions taken pursuant to this chapter shall be in accordance with the requirements of Chapter 18.10 SCCC, Level V. [Ord. 3433 § 1, 1983; Ord. 938, 1964].

13.12.080 Permits.

Before any nonconforming structure or trees may be replaced, substantially altered or repaired, rebuilt, allowed to grow higher, or replanted, a permit must be secured from the Zoning Administrator. Applications for approvals granted pursuant to this chapter shall be made in accordance with the requirements of Chapter 18.10 SCCC, Level V. No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a nonconforming structure or tree or nonconforming use to be made or become higher or become a greater hazard to air navigation than it was on February 3, 1964, or than it is when the application for a permit is made. Except as provided herein, all applications for permits shall be granted. No such permit shall be required to make maintenance repairs to or to replace parts of existing structures which do not enlarge or increase the height of the existing structure. [Ord. 3433 § 1, 1983; Ord. 938, 1964].

13.12.090 Variances.

(A) Any person desiring to erect any structure, or increase the height of any structure or permit the growth of any tree, or otherwise use his property in a manner contrary to the airport zoning regulations adopted under this chapter, may apply to the Zoning Administrator for a variance from the zoning regulations in question. Applications for approvals granted pursuant to this chapter shall be made in accordance with the requirements of Chapter 18.10 SCCC, Level V. Such variances shall be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations and this chapter; provided, that any variance may be allowed subject to any reasonable conditions that the Zoning Administrator may deem necessary to effectuate the purposes of this chapter.

(B) In granting any permit or variance under this chapter, the Zoning Administrator may, if he deems such action advisable to effectuate the purposes of this chapter and it is reasonable in the circumstances, condition such permit or variance so as to require the owner of the structure or tree in question to permit the County, at its own expense, to install, operate and maintain thereon such markers and lights as may be necessary to indicate to flyers the presence of an airport hazard. [Ord. 3433 § 1, 1983; Ord. 938, 1964].

13.12.100 Review of administrative decision.

Any person aggrieved, or taxpayer affected, by any decision of the Zoning Administrator under this chapter may petition the Board of Supervisors for a review of the matter in accordance with SCCC 18.10.310 et seq. For this purpose the procedure therein set forth is incorporated herein and made a part of this chapter. [Ord. 3433 § 1, 1983; Ord. 938, 1964].

13.12.110 Violations.

(A) Any person violating or causing or permitting the violation of any of the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than $500.00 or by imprisonment in the County jail for a term not exceeding six months or by both such fine and imprisonment. Such person shall be deemed guilty of a separate offense for each and every day during any portion of which any violation of this chapter is commenced, continued or permitted by such person and shall be punishable as herein provided.

(B) In addition, for any violation of any of the provisions of this chapter, the County may institute in any court of competent jurisdiction an action to prevent, restrain, correct or abate any violation hereof or airport zoning regulations adopted hereunder, or of any order or ruling made, in connection with their administration or enforcement.

The remedies provided for herein shall be cumulative and not exclusive. [Ord. 938, 1964].

13.12.120 Conflicting regulations.

Where this chapter imposes a greater or more stringent restriction upon the use of land than is imposed or required by any other chapter or regulation, the provisions of this chapter shall govern. [Ord. 938, 1964].

Chapter 13.12

AIRPORT COMBINING ZONE DISTRICT

Sections:

13.12.010 Purpose

The purposes of this chapter are to protect public health, safety, and welfare by ensuring the orderly expansion of airports, and to implement land use measures that minimize the public's exposure to excessive noise and safety hazards within specified areas around the Watsonville Municipal airport.

13.12.020 Scope

These regulations incorporate the requirements of the California Airport Land Use Planning Handbook (October 2011), published by the California Department of Transportation, Division of Aeronautics (Handbook), and applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, all as may be amended from time to time, and address the height, use, noise, safety, and density criteria that are compatible with airport operations.

13.12.030 Definitions.

For the purposes of this Chapter, the following terms shall have the stated meanings.

"Airport" means the Watsonville Municipal Airport.

"Airport hazard" means any structure or tree or use of land which obstructs the airspace required for the flight of aircraft in landing or taking off at the airport or is otherwise hazardous to such landing or taking off of aircraft.

"Airport Influence Area" (AIA) includes land within two miles of the boundary of the Watsonville Municipal Airport.

"Infill", as defined by the Handbook and for the purpose of this Chapter, is defined as development that takes place on vacant property largely surrounded by existing development in urbanized and dense areas, especially development which is similar in character.

"Handbook" (or "CDOA Handbook") shall mean the Airport Land Use Planning Handbook published by the California Department of Transportation, Division of Aeronautics, which establish the height, use, noise, safety, and density criteria that are compatible with airport operations.

"Landing area" means the area of the airport used for the landing, take-off or taxiing of aircraft.

"Level of Development" means density or intensity of development. For the purposes of this chapter, the following terms are defined as stated:

> Rural—Areas where the predominant land uses are natural or agricultural; buildings are widely scattered. Areas with a General Plan designation of Agriculture are rural.
>
> Suburban—Areas characterized by low-rise (1-2 story) development and surface parking lots. Areas with General Plan designations of Residential, Commercial, and Public Facilities are suburban.

"Person" means any individual, firm, co-partnership, corporation, company, association, joint stock association, city, county, or district, and includes any trustee, receiver, or assignee thereof.

"Structure" means any object constructed or installed by a person, including, but without limitation, buildings, towers, smokestacks and overhead lines.

"Tree" means any object of natural growth, including that introduced or planted by people.

13.12.040 Airport Combining Zone District

In order to carry out the purposes of this chapter, all of the lands within the Airport Influence Area (AIA) of the Watsonville Municipal Airport and within the following six Airport Safety (AS) Zones, as delineated on Figures 2-21 (AIA) and 2-22 (Safety Zones) of the Santa Cruz County General Plan and on the County's Geographic Information System (GIS) land use maps are incorporated into the Airport Combining Zone District. Within each safety zone density standards for residential uses and intensity standards for non-residential uses are established. The CDOA Handbook provides the method for calculating population density for an individual residential project and intensity for an individual non-residential project. Usage intensities and densities shall be based upon the most stringent density or intensity limitation of a site or building as described in the Handbook, and shall not exceed the most stringent density or intensity limitation for the AS Zones. Nonresidential intensity criteria include averages over an entire site and for any single acre. The acceptable number of people in a given area shall be equal for outdoor and indoor uses. Terms used in the following charts shall be as defined in the CDOA Handbook and this chapter.

(A) Safety Zone 1 – Runway Protection Zone

The Runway Protection Zone (RPZ) is the area at the end of a runway used to enhance the protection of people and property on the ground.

Safety Zone 1 – Runway Protection Zone			
Nature of Risk			
Normal Maneuvers	Aircraft on very close final approach or departure – very high risk		
Altitude	Less than 200 feet above runway		
Common Accident Types	Arrival: Downdrafts and wind gusts. Low glide paths Departure: Runway overruns, aborted takeoffs and engine failures		
Risk Level	Very high Percentage of near-runway accidents in this zone: 20% - 21%		
Basic Compatibility Policies			
Allowed Uses	None – See Notes A and B		
Prohibit	All new structures and residential or non-residential land uses See Note B		
Densities and Intensities of Development			
Level of Development	**Maximum Residential Densities**	**Maximum Nonresidential Intensities**	**Maximum Single Acre**
	Average number of dwelling units per gross acre	**Average number of people per gross acre**	**2x the Average number of people per gross acre**
Rural	0	0 – See Note A	0
Suburban	0	0 – See Note A	0
Note A: Exceptions can be permitted for agricultural activities and roads provided that FAA criteria are satisfied. Note B: Allow construction of a main dwelling, or an accessory dwelling unit, on an existing parcel on the least impacted portion of the property.			

(B) Safety Zone 2 - Inner Approach/Departure Zone

A rectangular area extending beyond the RPZ. If the RPZ width is approximately equal the runway widths, the Inner Approach/Departure Zoned extends along the sides of the RPZ from the end of the runway.

<table>
<tr><th colspan="4">Safety Zone 2 – Inner Approach/Departure Zone</th></tr>
<tr><th colspan="4">Nature of Risk</th></tr>
<tr><td>Normal Maneuvers</td><td colspan="3">Aircraft overflying at low altitudes on final approach and straight-out departures</td></tr>
<tr><td>Altitude</td><td colspan="3">Between 200 and 400 feet above runway</td></tr>
<tr><td>Common Accident Types</td><td colspan="3">Arrival: Similar to Zone 1, aircraft under-shooting approaches, forced short landings
Departure: Similar to Zone 1, emergency landing on straight-out departure</td></tr>
<tr><td>Risk Level</td><td colspan="3">High
Percentage of near-runway accidents in this zone: 8% - 22%</td></tr>
<tr><th colspan="4">Basic Compatibility Policies</th></tr>
<tr><td>Allow</td><td colspan="3">Residential uses limited to the densities specified below
Agriculture, non-group recreational uses
Low-hazard materials storage, warehouses
Low-intensity light industrial uses; auto, aircraft, marine repair services
Single story office buildings and non-residential uses limited to the intensities specified below</td></tr>
<tr><td>Prohibit</td><td colspan="3">Multi-story uses; uses with high density or intensity
Shopping centers, most eating establishments
Theaters, meeting halls and other assembly uses
Office buildings greater than 3 stories
Labor-intensive industrial uses
Children’s schools, large daycare centers, hospitals, nursing homes
Stadiums, group recreational uses
Hazardous uses (e.g. aboveground bulk fuel storage)</td></tr>
<tr><th colspan="4">Densities and Intensities of Development</th></tr>
<tr><th rowspan="2">Level of Development</th><th>Maximum Residential Densities</th><th>Maximum Nonresidential Intensities</th><th>Maximum Single Acre</th></tr>
<tr><th>Average number of dwelling units per gross acre</th><th>Average number of people per gross acre</th><th>2x the Average number of people per gross acre</th></tr>
<tr><td>Rural</td><td>See Note A</td><td>10</td><td>20</td></tr>
<tr><td>Suburban</td><td>1 per 20 acres</td><td>40</td><td>80</td></tr>
<tr><td colspan="4">Note A: Maintain current General Plan and zoning density if less than density criteria for suburban setting.</td></tr>
</table>

(C) Safety Zone 3 – Inner Turning Zone

A triangular area over which aircraft are turning from the base to final approach legs of the standard traffic pattern. It also includes the area where departing aircraft normally complete the transition from takeoff to climb mode and begin to turn on their en route headings.

Safety Zone 3 – Inner Turning Zone			
Nature of Risk			
Normal Maneuvers	Aircraft—especially smaller, piston-powered aircraft— turning base to final on landing approach or initiating turn to en route direction on departure		
Altitude	Less than 500 feet above runway, particularly on landing		
Common Accident Types	Arrival: Pilot overshoots turn to final and inappropriately cross controls the airplane rudder and ailerons while attempting to return to the runway alignment causing stall, spin, and uncontrolled crash Departure: Mechanical failure on takeoff; low altitude gives pilot few options on emergency landing site; or, pilot attempts to return to airport and loses control during tight turn		
Risk Level	Moderate to high Percentage of near-runway accidents in this zone: 4% - 8%		
Basic Compatibility Policies			
Allow	Uses allowed in Zone 2 Greenhouses, low-hazard materials storage, mini-storage, warehouses Light industrial, vehicle repair services Very low density residential uses Low intensity office and other commercial uses		
Prohibit	Commercial and other nonresidential uses having higher usage intensities Building with more than 3 aboveground habitable floors Hazardous uses (e.g., aboveground bulk fuel storage) Major shopping centers, theaters, meeting halls and other assembly facilities Children's schools, large daycare centers, hospitals, nursing homes Stadiums, group recreational uses		
Densities and Intensities of Development			
Level of Development	**Maximum Residential Densities**	**Maximum Nonresidential Intensities**	**Maximum Single Acre**
	Average number of dwelling units per gross acre	**Average number of people per gross acre**	**3x the Average number of people per gross acre**
Rural	See Note A	50	150
Suburban	1 per 5 acres	70	210
Note A: Maintain current General Plan and zoning density if less than density criteria for suburban setting.			

(D) Safety Zone 4 – Outer Approach/Departure Zone

A rectangular area located along the extended centerline beyond the Inner Approach/Departure Zone.

<table>
<tr><th colspan="4">Safety Zone 4 – Outer Approach/Departure Zone</th></tr>
<tr><th colspan="4">Nature of Risk</th></tr>
<tr><td>Normal Maneuvers</td><td colspan="3">Approaching aircraft usually at less than traffic pattern altitude. Particularly applicable for busy general aviation runways (because of elongated traffic pattern), runways with straight-in instrument approach procedures, and other runways where straight-in or straight-out flight paths are common</td></tr>
<tr><td>Altitude</td><td colspan="3">Less than 1,000 feet above runway</td></tr>
<tr><td>Common Accident Types</td><td colspan="3">Arrival: Pilot undershoots runway during an instrument approach, aircraft loses engine on approach, forced landing
Departure: Mechanical failure on takeoff</td></tr>
<tr><td>Risk Level</td><td colspan="3">Moderate
Percentage of near-runway accidents in this zone: 2% - 6%</td></tr>
<tr><th colspan="4">Basic Compatibility Policies</th></tr>
<tr><td>Allow</td><td colspan="3">Uses allowed in Zone 3
Restaurants, retail, industrial
Low density residential use</td></tr>
<tr><td>Prohibit</td><td colspan="3">High-intensity retail or office buildings
Children’s schools, large daycare centers, hospitals, nursing homes
Stadiums, group recreational uses
Assemblages of people</td></tr>
<tr><th colspan="4">Densities and Intensities of Development</th></tr>
<tr><th rowspan="2">Level of Development</th><th>Maximum Residential Densities</th><th>Maximum Nonresidential Intensities</th><th>Maximum Single Acre</th></tr>
<tr><th>Average number of dwelling units per gross acre</th><th>Average number of people per gross acre</th><th>3x the Average number of people per gross acre</th></tr>
<tr><td>Rural</td><td>See Note A</td><td>0</td><td>140</td></tr>
<tr><td>Suburban</td><td>1 per 2 acres</td><td>70</td><td>200</td></tr>
<tr><td colspan="4">Note A: Maintain current General Plan and zoning density if less than density criteria for suburban setting.</td></tr>
</table>

(E) Safety Zone 5 - Sideline Zone

A rectangular area in close proximity and parallel to the runway.

Safety Zone 5 – Sideline Zone			
Nature of Risk			
Normal Manuevers	Area not normally overflown; primary risk is with aircraft (especially twins) losing directional control on takeoff, excessive crosswind gusts or engine torque		
Altitude	Runway elevation		
Common Accident Types	Arrival and Departure: Aircraft losing directional control and veering off the side of the runway		
Risk Level	Low to Moderate Percentage of near-runway accidents in this zone: 3% - 5%		
Basic Compatibility Policies			
Allow	Uses allowed in Zone 4 (subject to height limitations for airspace protection) All common aviation-related activities provided that FAA height-limit criteria are met Low intensity office and other commercial uses		
Prohibit	Residential uses not airport related (noise usually also a factor) High-intensity nonresidential uses Children's schools, large daycare centers, hospitals, nursing homes Stadiums, group recreational uses		
Densities and Intensities of Development			
Level of Development	**Maximum Residential Densities**	**Maximum Nonresidential Intensities**	**Maximum Single Acre**
	Average number of dwelling units per gross acre	**Average number of people per gross acre**	**3x the Average number of people per gross acre**
Rural	See Note A	50	150
Suburban	1 per 2 acres	70	210
Note A: Maintain current General Plan and zoning density if less than density criteria for suburban setting.			

(F) Safety Zone 6 - Traffic Pattern Zone

An elliptical area that includes the majority of other portions of regular air traffic patterns and pattern entry routes, and generally extends to the farthest point of 6,000 foot radius arcs from the centers of each of the primary surfaces and connecting lines tangent to those arcs.

Safety Zone 6 – Traffic Pattern Zone			
Nature of Risk			
Normal Manuevers	Aircraft within a regular traffic pattern and pattern entry routes		
Altitude	Ranging from 1,000 to 1,500 feet above runway		
Common Accident Types	Arrival: Pattern accidents in proximity of airport Departure: Emergency landings		
Risk Level	Low Percentage of near-runway accidents in this zone: 18% - 29% (percentage is high because of large area encompassed)		
Basic Compatibility Policies			
Allow	Uses allowed in Zone 5 Residential uses Children's schools, large day care centers, hospitals, and nursing homes limited by intensity		
Prohibit	Outdoor stadiums and similar uses with very high intensities		
Densities and Intensities of Development			
Level of Development	**Maximum Residential Densities**	**Maximum Nonresidential Intensities**	**Maximum Single Acre**
	Average number of dwelling units per gross acre	**Average number of people per gross acre**	**4x the Average number of people per gross acre**
Rural	No Limit – See Note A	150	600
Suburban	No Limit – See Note A	200	800
Note A: Use density criteria of current zoning and General Plan designation, and consider noise and overflight conditions.			

(G) Intensities for Nonresidential Uses

For compatibility planning purposes, intensity is the number of occupants calculated based on the number of parking spaces required for the particular use, multiplied by average vehicle occupancy to obtain number of people. The resulting numbers are generally lower than are produced by using the occupancy level standards found in building and fire codes, which are based upon the absolute peak usage.

Type of Use	**Intensity (people/acre)**
Small retail shops (not shopping center)	20
Local retail centers (grocery/drug store anchor)	65
"Big Box" centers (single story, surface parking)	90
Major retail centers / malls (1-2 stories)	150
Fast food dining	120
Restaurants	90
Offices / banks (1-2 stories)	60
Motels	40
Light Industrial	20
Warehouses	10

Note: Numbers here assume surface parking

13.12.050 Airspace Protection

(A) Airspace Obstruction Compatibility Criteria: The criteria for determining the acceptability of a project with respect to height shall be based upon the standards set forth in Federal Aviation Regulations (FAR) Part 77, Subpart C, Objects Affecting Navigable Airspace; the United States Standard for Terminal Instrument Procedures (TERPS); and applicable airport design standards published by the FAA. These standards apply to the following to the extent they require a discretionary permit:

(1) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(2) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

No object shall be limited to a height of less than the basic height limit applicable to the underlying zone districts even if the object would constitute an obstruction. Antenna structures shall not exceed 20 feet in height.

Except as provided in other sections of this Chapter, no object, including mobile objects such as a vehicle, or temporary objects, such as a construction crane, shall have a height that would result in penetration of

the airspace protection surface depicted for the Airport in Figure 2-23. Any object that penetrates one of these surfaces is, by FAA definition, deemed an obstruction.

(B) Requirements for FAA Notification of Proposed Construction: Proponents of a project containing structures or other objects that exceed the basic height standards applicable to the underlying zone districts must submit notification of the proposal to the FAA where required by the provisions of FAR Part 77, Subpart B. The FAA notification requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes. Notification is required if the proposed structure or other object is within 20,000 feet of any runway and would exceed a slope of 100:1 from the nearest point of the nearest runway. The notification requirement can be determined using the following equation:

$$(D/100 – H) + 160 > E$$

where D equals the distance from the runway, the established elevation of the airport is 160 feet above mean sea level, H equals the height of the building or object above highest existing grade adjacent the building or object, and E equals the highest existing grade adjacent the building or object based on the North American Vertical Datum of 1988 (NAVD 88). If the result is greater than E then notification is required. Notification shall be made on FAA Form 7460-1. If the structure or object would be an obstruction and the FAA determines it would be a hazard to air navigation, the structure shall be lowered or include markings or lighting as directed by the FAA.

(C) No permit shall be granted that would allow the establishment or creation of an obstruction or permit a nonconforming use, structure, or tree to become a greater hazard to air navigation than it was on the effective date of this Ordinance or any amendments thereto or than it is when the application for a permit is made.

(D) Other Flight Hazards: Land uses that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at the airport shall be allowed within the airport influence area only if the uses are consistent with FAA rules and regulations.

Specific characteristics to be prohibited include:

- sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays);
- distracting lights that could be mistaken for airport lights;
- sources of dust, steam, or smoke that may impair pilots' vision;
- sources of steam or other emissions that cause thermal plumes or other forms of unstable air;
- sources of electrical interference with aircraft communications or navigation; and
- any proposed use that creates an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Order 5200.5A, Waste disposal Sites on or Near Airports, and Advisory Circular 150/5200-33, Hazardous Wildlife Attractants On or Near Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds that pose bird strike hazards to aircraft in flight.

13.12.060 Overflight

Prior to the issuance of any building permit for the expansion of any structure or the creation of any new structures in the Airport Combining Zone District, the owner shall record a statement on the deed for the parcel acknowledging the property is located within the Watsonville Municipal Airport Influence Area (AIA) and acknowledging that the properties in the AIA are routinely subject to overflights by aircraft using this public-use airport and, as a result, residents may experience inconvenience, annoyance, or discomfort arising from the noise of such operations. The acknowledgment shall include the following statement:

> NOTICE OF AIRPORT IN VICINITY: This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

13.12.070 Review by Airport Owner and Operator

The City of Watsonville and the airport manager shall be notified of all discretionary applications for projects located within the AIA and be provided an opportunity to review and comment on the application pursuant to the timelines and procedures in Chapter 18.10 of the Santa Cruz County Code, consistent with the Permit Streamlining Act as well as any public comment periods associated with environmental review of a proposed project.

13.12.080 Nonconforming uses, structures and trees.

Before any nonconforming use, structure or tree may be replaced or reconstructed, or allowed to grow higher or replanted, a permit must be secured from the County authorizing such replacement, reconstruction or growth. No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a nonconforming structure or nonconforming use or tree to become higher or become a greater hazard to air navigation. Except as provided herein, all applications for permits shall be processed in accordance with standard county procedures for consideration of building or development applications. No such permit shall be required to undertake maintenance and repairs, or to replace parts of existing structures, which do not enlarge or increase the height of the existing structure.

The regulations prescribed in Santa Cruz County Code ("SCCC") §§ 13.12.040 and 13.12.050 shall not be construed to require the removal, lowering or other change or alteration of any structure or tree not conforming to the regulations as of the effective date hereof (1964), or otherwise interfere with the continuance of any legal, nonconforming use except as herein provided. Nothing herein contained shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Chapter, and is diligently pursued and completed within a reasonable time thereof. [Ord. 938, 1964].

13.12.090 Permits.

Applications for permits granted pursuant to this chapter shall be made in accordance with the requirements of Chapter 18.10 SCCC.

13.12.100 Exceptions.

Any person desiring to erect any structure not in strict compliance with the standards of this chapter, or to increase the height of any structure, or permit the growth of any tree, may apply to the County for an exception from the zoning regulations in question, consistent with an administrative discretionary Level III process, with public notice but no public hearing required. Such exceptions shall be allowed, consistent with the Handbook, where a literal application or enforcement of the regulations would result

in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest but do substantial justice and be in accordance with the spirit of the regulations and this article; provided, that any exception may be approved subject to any reasonable conditions that the County may deem necessary to effectuate the purpose of this chapter and consistency with the Handbook.

In granting any permit or exceptions under this section, the County may, if it deems such action advisable to effectuate the purposes of this chapter and reasonable in the circumstances, so condition such permit or exception as to require the owner of the structure or tree in question to permit the city and county, at its own expense, to install, operate, and maintain thereon such markers and lights as may be necessary to indicate to pilots and flyers the presence of an airport hazard.

13.12.110 Appeals

All appeals of actions taken pursuant to the provisions of this Chapter shall be made in conformance with the procedures of Chapter 18.10 SCCC.

13.12.120 Violations.

Use. It shall be unlawful for any person to establish, cause or permit a new use of land, or expand, intensify or continue an existing use of land, or construct, enlarge or move a building for a use of land, located in the Airport Combining Zone District unless that use is allowed in the Airport Combining Zone District in which the land is located, or is a legal nonconforming use or structure in conformance with SCCC §§ 13.10.260, 13.10.261 and 13.10.262.

Violations of permit conditions, height limitations, density standards, and other procedures related to violations of this chapter shall be administered and enforced in accordance with SCCC §§ 13.10.275, 13.10.276, 13.10.277, 13.10.278, 13.10.279 and 13.10.280.

13.12.130 Conflicting regulations.

Where this Chapter imposes a greater or more stringent restriction upon the use of land than is imposed or required by any other Chapter or regulation, the provisions of this Chapter shall govern. [Ord. 938, 1964].

Attachment 7

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Chapter 13.15 Noise Planning	
Existing Requirements	• No exist ordinance addressing noise planning • Existing noise ordinance addresses offensive noise
Proposed Amendments	• New SCCC Chapter 13.15 Noise Planning • Implements GP/LCP Chapter 9 Noise Elecment • The purpose is to apply noise standards in the land use permitting process • Establishes the location of sound level measurement • Lists exempt activities, including construction noise • Establishes standards for emergency generators, and air condition and mechanical units • Establishes standards and procedures for project review of noise generating land uses, and protection of new development from existing noise • Requires acknowledgement of potential impact from rail vibration
Reason	• Implementation of noise policies in the GP/LCP has in the past been cause some confusion • The new ordinance provides for implementation the new Noise Element • It is reasonable while planning continues for future use of the rail line for freight and passenger rail service to require developers acknowledge the potential vibration and noise impacts
Environmental Evaluation	• No impact • Regulations are consistent with the Noise Element • New requirement for deed recordation acknowledging potential impacts of rail vibration and noise could help reduce future complaints

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Chapter 13.15

NOISE PLANNING

Sections:

13.15.010 Purpose and Intent

The purpose of this chapter is to recognize the relationship between noise and noise-sensitive land uses and the public health concerns associated with noise. The intent of the County is to reasonably regulate noise generation and noise exposures by applying standards through land use planning and permitting, incorporating mitigation into project design to prevent unhealthful conditions, and enforcement to address violation of permit conditions.

13.15.020 Definitions

The words and phrases defined in this chapter shall have the meanings respectively ascribed to them by this section.

"Ambient noise level" means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding an alleged offensive noise~~,~~, at the location and approximate time at which the comparison with the offensive noise is to be made. The ambient noise level constitutes the normal or existing level of environmental noise at a given location

"Construction" means any site preparation including grading, building, fabricating, assembly, substantial repair or similar action.

"Decibel (dB)" means a unit for measuring amplitude of a sound, equal to twenty times the logarithm to the base ten of the ratio of the pressure of the sound measured to the reference pressure, which is twenty micropascals (twenty micronewtons per square meter).

"Emergency" means any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

"Emergency generator" means a stationary combustion device, such as a reciprocating internal combustion engine or turbine that serves solely as a secondary source of mechanical or electrical power whenever the primary energy supply is disrupted or discontinued during power outages or natural disasters that are beyond the control of the owner or operator of a facility. An emergency generator operates only during emergency situations, for training of personnel under simulated emergency

conditions, as part of emergency demand response procedures, or for standard performance testing procedures as required by law or by the generator manufacturer. A generator that serves as a back-up power source under conditions of load shedding, peak shaving, power interruptions pursuant to an interruptible power service agreement, or scheduled facility maintenance shall not be considered an emergency generator.

"Emergency work" means work made necessary to restore property to a safe condition following a physical trauma or property damage caused by an emergency or work necessary to prevent or minimize damage from a potential emergency.

"Grading" means any excavating and/or filling of earth material to carry out any grading activities that require a permit under Chapter 16.20 of the County Code.

"Minor maintenance and repair" means work required to keep property in good condition, with structures continuing to exist at the location, size and configuration as originally permitted and constructed.

"Noise" means any sound which unacceptably exceeds the appropriate actual or presumed ambient noise level, or which causes or tends to cause an adverse psychological or physiological effect on humans. Some noises may also be defined as intrusive noise, offensive noise and/or a noise disturbance.

"Noise source" means a disturbance-causing operation which originates from a noise-generating mechanism. An example of a noise source is the combination of a motor, pump and compressor.

"Noise sphere" (also known as a “noisiness zone”) means a geographic area within a community where ambient noise levels are generally similar, within a range of five dB, such that sites within the sphere are of comparable proximity to major noise sources. Noise contours generally define different noise spheres or noisiness zones.

"Sound" means an oscillation in air pressure. The description of sound may include any characteristic of such sound, including duration, intensity and frequency.

"Sound level" means the weighted sound pressure level obtained by the use of a sound level meter and frequency weighing network, such as A, B or C, as specified in American National Standards Institute specifications for sound level meter ANSI/ASA S1.4-2014 or the latest approved revision thereof. If the frequency weighing method used is not stated, the A-weighing shall apply.

"Sound level meter" means an instrument, including a microphone, an amplifier, an output meter, and frequency weighing networks for the measurement of sound levels which satisfies the requirements for Class I or Class II meters in American National Standards Institute specifications for sound level meters, ANSI/ASA S1.4-2014, or the most recent revision thereof, or an instrument that provides equivalent data.

"Sound pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given point in space, as produced by sound energy.

"Sound pressure level" in decibels means twenty times the logarithm to the base ten of the ratio of the pressure of this sound to the reference pressure, which reference pressure shall be explicitly stated.

Definitions of technical terms not defined herein shall be obtained from the American National Standard, "Acoustical Terminology" S1.1-2013 or the latest revision thereof.

13.15.030 Sound Level Assessment or Measurement

(A) Sound or noise level assessments or measurements made to administer and enforce this chapter shall be conducted at the position or positions along the property line of the receiving land use closest to the noise source or where the noise level is highest. If possible, the ambient noise level shall be assessed or measured at the same location along the property line with the project noise source inoperative, or the ambient noise may be estimated by performing an assessment or measurement in the same noise sphere or general area of the source but at a sufficient distance that the project noise is inaudible.

(B) When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of the noise barriers or other property line noise mitigation measures.

13.15.040 Exemptions

(A) Noise sources normally and reasonably associated with construction, repair, remodeling, or grading of any real property; provided a permit has been obtained from the County as required; and provided said activities take place between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, or between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. Such activities shall not take place on Sunday or a federal holiday unless the Building Official has in advance authorized work on a Sunday or federal holiday, or during earlier morning or later evening hours of a weekday or Saturday.

(B) Emergency Work. The provisions of this Chapter shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency or in the performance of emergency work.

(C) Entertainment or Special Events. The provisions of this Chapter shall not apply to those reasonable sounds emanating from authorized school bands, school athletic and school entertainment events and occasional public and private outdoor or indoor gatherings, community events, public dances, shows, bands, sporting and entertainment events conducted between the hours of 8:00 a.m. and 10:00 p.m. or the applicable permitted timeframe, as long as any applicable requirements for special event permits or temporary use permits are met.

(D) Entertainment or Special Events. The provisions of this Chapter shall not apply to those reasonable sounds emanating from authorized school bands, school athletic and school entertainment events and occasional public and private outdoor or indoor gatherings, community events, public dances, shows, bands, sporting and entertainment events conducted between the hours of 8:00 a.m. and 10:00 p.m. or the applicable permitted timeframe, as long as any applicable requirements for special event permits or temporary use permits are met.

(E) Federal or State Preempted Activities. The provisions of this chapter shall not apply to any other activity the noise level of which is regulated by state or federal law.

(F) Minor Maintenance and Repairs to Residential Property. The provisions of this chapter shall not apply to noise sources associated with minor maintenance and repairs to property used for residential purposes, provided the activities take place between 7:00 a.m. and 7:00 p.m.

(G) Right-Of-Way Construction. The provisions of this chapter shall not apply to any work performed in right-of-ways when, in the opinion of the Public Works Director or his/her designee, such work will address traffic congestion and/or hazardous or unsafe conditions.

(H) Public Health, Welfare and Safety Activities. The provisions of this chapter shall not apply to construction maintenance and repair operations conducted by public agencies and/or utility companies or their contractors which are deemed necessary to serve the best interests of the public and to protect the public health, welfare and safety, including but not limited to, trash collection, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging

sewers, vacuuming catch basins, repairing of damaged poles, removal of abandoned vehicles, repairing of water hydrants and mains, gas lines, oil lines, sewers, storm drains, roads, sidewalks, etc.

(I) Agricultural and Farming Activities. Noise caused by normal and customary farming operations that are carried out on lands designated by the General Plan and zoned for commercial agricultural (CA) use.

(J) I. Special Noise Regulations for Specific Types of Activities. The provisions of this chapter shall not apply to any noise from any specific type of activity for which special noise regulations are provided by any other provision of the County Code.

13.15.050 General Noise Regulations and Unlawful Noise

(A) No use except a temporary construction operation shall be permitted which creates noise which is found by the Planning Commission not to conform to the noise parameters established by the Table 9-2 and Table 9-3 of the Santa Cruz County General Plan beyond the boundaries of the project site at standard atmospheric pressure.

(B) Backup emergency generators shall only be operated during power outages and other temporary purposes. If the generator is located within 100 feet of a residential dwelling unit, noise attenuation measures shall be included to reduce noise levels to a maximum exterior noise level of 60 Ldn at the property line and a maximum interior **noise** level of 45 Ldn within nearby residences.

(C) The Santa Cruz County Code in general provides protections from the impacts of noise exposure. Specific noise standards are found in the following sections:

13.10.637(B)(5) Wineries.
13.10.658(A)(2)(i) Recycling facilities
13.10.663(B)(11) Wireless communication facilities
13.10.694(H) Vacation rentals
16.54.050(C)(1) Mining operations
Chapter 9.52 Off-road motor vehicles

13.15.060 Special Requirements for Air Conditioning/Mechanical Units in or near Residential Uses

Where the intruding noise source is a residential air-conditioning unit, or a commercial air-conditioning or other mechanical unit within 100 feet of any building or place regularly used for sleeping purposes, that operates more or less continually and/or during most hours, which was installed prior to the effective date of this chapter, the exterior noise level when measured at any neighboring property line shall not exceed sixty dBA for units installed before the effective date and fifty-five dBA for units installed after the effective date.

13.15.070 Noise Generating Land Use

(A) New commercial and industrial development that would increase noise levels above the normally acceptable range in Table 9-2 or the levels in Table 9-3 of the Santa Cruz County General Plan Noise Element shall require acoustic studies to determine the noise reduction requirements to be included as conditions of approval. Noise levels shall not exceed the standards in Table 9-3. Require as conditions of approval site design and sound reducing measures if the project would:

(1) Increase the noise level at existing noise-sensitive receptors or areas by 5 dB Ldn or more, where the post-project Ldn would remain equal to or below 60dB

(2) Increase the noise level at existing noise-sensitive receptors or areas by 3 dB Ldn or more, where the post-project Ldn would exceed 60dB

(B) The standards in this section shall not limit the ability of the County to impose conditions of approval on projects that increase noise levels at existing noise-sensitive receptors or areas by any amount.

13.15.080 Exterior Noise Standards

New development shall not be exposed to noise levels that exceed normally acceptable levels in Table 9-2 of the Santa Cruz County General Plan Noise Element, which establishes acceptable through unacceptable ranges of noise exposure by land use.

13.15.090 Interior Noise Standards

(A) Noise insulation of new structures developed within the County of Santa Cruz shall comply with applicable requirements of Title 24 of the Health and Safety Code of the State of California, as may be amended from time to time and as adopted by the County of Santa Cruz within Chapter 12.10 Building Regulations of the Santa Cruz County Code. Interior noise levels shall not exceed 45 dB Ldn in any habitable room in a residential structure and 50 dB Ldn in any nonresidential structure. Special sound insulating construction is required for the following types of projects:

(1) New development activities located within the highway and local roadway future noise contour of 65 dB Ldn in Figures 9-2a and 9-2b of the General Plan Local Coastal Plan

(2) New development activities located within the 65 dB Ldn future noise contour for the Watsonville Municipal Airport

(3) As a condition of approval for all discretionary applications for new development in other areas where noise levels are known to or are determined to exceed 65 dBLdn. Acoustical studies may be required to determine existing exterior noise levels and the level of sound insulation required.

13.15.100 Acknowledgement of Potential Vibration from Rail

Prior to the issuance of any building permit for the expansion of any structure or the creation of any new structures within 200 feet of the Santa Cruz and Monterey Bay Railway right-of-way, the owner shall record a statement on the deed for the parcel acknowledging the property is located within an are subject to vibrations and noise from railway operations and, as a result, residents may experience inconvenience, annoyance, or discomfort arising from the vibrations and noise of such operations.

13.15.110 Administration and enforcement

(A) This chapter shall be administered by the Planning Department and land use decisionmakers as related to land use planning and issuance of development permits. Enforcement related to violations of land use development permits shall be primarily the responsibility of the Planning Department, with assistance from the County of Santa Cruz Sheriff's Office particularly during non-standard office hours.

(B) It shall be unlawful for any person to exercise a development permit which authorized noise generating land use without complying with all of the conditions of such permit.

(C) A violation related to noise generation that is not allowed by a land use permit issued for a use or development may be grounds for the County to review, amend or revoke such permit as provided by the Zoning Ordinance in Chapter 13.10 and by Titles 18 and 19 of the County Code.

13.15.120 Severability

If any section, subsection, sentence, clause or phrase in this title is for any reason held to be invalid or unconstitutional by decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this title. The Board of Supervisors hereby declares that it would have passed this title and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more other sections, subsections, clauses or phrases may be declared invalid or unconstitutional.

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Attachment 8

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Chapter 16.01 Procedures for compliance with CEQA	
Existing Requirements	• County Environmental Review Guidelines were adopted in 1980 and revised in 1982, 1984, and 1990. • County Guidelines are nearly identical to State Guidelines except for some minor local amendments (grading exemption) and a section on County environmental review procedures (guidelines) for conducting environmental review
Proposed Amendments	• Establishes the State Guidelines, as amended from time to time, as the County Environmental Review Guidelines • Redefines County environmental review guidelines as Administrative Practice Guidelines issued by the Planning Director. This refers to the local procedures (guidelines) for conducting environmental review • No changes to Administrative Practice Guidelines
Reason	• The County must adopt environmental review procedures consistent with State guidelines • The County may adopt the State CEQA Guidelines through incorporation by reference (CEQA Guidelines Section 15022) • The County may adopt certain procedures specific operations of the County (CEQA Guidelines Section 15022) • This restructuring of the County Environmental Review Guidelines will allow the Guidelines to automatically stay current as periodic updates occur to the State Guidelines
Environmental Evaluation	• No impact • Effectively, no changes are proposed, the proposed amendments will allow the County to stay current with State CEQA Guidelines

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Chapter 16.01

~~REGULATIONS~~PROCEDURES FOR ~~PRESERVING~~COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND ~~ENHANCING~~ THE ~~ENVIRONMENT~~STATE CEQA GUIDELINES

Sections:

16.01.010 Purpose.

The purpose of these regulations is to adopt public agency implementing procedures pursuant to Section 15022 of the State CEQA Guidelines, in order to avoid and mitigate environmental impacts, as feasible, that could occur from approval and implementation of projects subject to CEQA, and in order to preserve and enhance the environment of the County of Santa Cruz, by ~~providing for the adoption of~~ensuring that County ~~environmental review guidelines setting forth regulations and procedures implementing~~ actions on projects subject to the California Environmental Quality Act (CEQA) ~~and State Environmental Impact Report~~are undertaken consistent with the requirements and procedures of CEQA and the CEQA Guidelines promulgated ~~pursuant thereto. Authority is also granted for the adoption of further measures designed to preserve and enhance the environment of~~ by the ~~County as the Board~~State of ~~Supervisors see fit.~~California [Ord. 2117, 1975].

16.01.020 Definitions.

"California Environmental Quality Act (CEQA)" means the ~~Environmental Quality Act of 1970 commencing with Section 21050~~most current version of the California Public Resources Code ~~and~~Sections 21000 – 21189, as amended from time to time.

"CEQA Guidelines" means the most current version of the State CEQA Guidelines contained in the California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000 – 15387, adopted by the Secretary for the Resources Agency pursuant to Section 21083 of CEQA, which provide guidelines for implementation of the California Environmental Quality Act.

"County environmental review guidelines" means any Administrative Practice Guidelines issued by the Planning Director to explain, as needed, any local environmental review administrative procedures for implementation of CEQA and the CEQA Guidelines in a manner consistenet with the most current version of CEQA and the CEQA Guidelines as adopted by the State of California. ~~and regulations adopted by resolution of the Board of Supervisors to implement CEQA and State EIR Guidelines.~~

"Environmental Coordinator" means the Planning Director of the County of Santa Cruz or designee.

"Project subject to CEQA" means an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which involves a discretionary action taken by the County of Santa Cruz, which may be any of the following:

a. An activity directly undertaken by the County of Santa Cruz.
b. An activity undertaken by a person which is financed, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from the County of Santa Cruz.
c. A private or public activity that involves the discretionary approval and issuance by the County of Santa Cruz to a person of a lease, permit, license, certificate, or other discretionary entitlement.

~~"County rules and regulations" means policies, procedures, rules and regulations adopted by the Board of Supervisors by ordinance or resolution to provide for implementing County environmental review guidelines or to adopt further measures designed to preserve and enhance the environment of the County.~~

~~"State EIR Guidelines" means the Guidelines for Implementation of the California Environmental Quality Act adopted by the Secretary for Resources pursuant to Section 21083 of CEQA and published in Division 6, Title 14 of the California Administrative Code, commencing with Section 15000, and as amended from time to time. [Ord. 2117, 1975].~~

16.01.030 ~~Adoption of County environmental review guidelines~~ CEQA and the CEQA Guidelines to serve as County of Santa Cruz environmental review procedures

~~The Board of Supervisors shall adopt County environmental review guidelines not inconsistent with State EIR Guidelines and CEQA. Said County guidelines shall be reviewed periodically to keep them in conformity with CEQA and State EIR Guidelines as they may be amended from time to time. The County may adopt other rules and regulations designed to preserve and enhance the environment of the County. [Ord. 2117, 1975].~~The most current versions of CEQA and the CEQA Guidelines are incorporated by reference into this Chapter 16.01 of the Santa Cruz County Code, and environmental review for all County discretionary actions on projects subject to CEQA shall be taken consistent with the requirements and procedures of those regulations.

16.01.040 Applicants—Information to be furnished.

Applicants for permits or other discretionary authorizations under the Santa Cruz County Code shall provide the information required by ~~current County rules and County environmental review guidelines~~ the County as determined by the Environmental Coordinator to be needed for compliance with CEQA. ~~[Ord. 2117, 1975].~~

16.01.050 Decisions to consider environmental factors.

Prior to taking action to approve a discretionary development permit, legislative matter or other project subject to CEQA, the approving body shall either determine the project to be exempt from CEQA, or make required findings and adopt a Negative Declaration, or make required findings and certify an Environmental Impact Report, Findings and actions taken shall comply with CEQA and the CEQA Guidelines~~Where environmental impact reports are required pursuant to this chapter, the decision-making body shall give such consideration to the facts developed therein as it deems necessary and in accordance with County rules and guidelines. [Ord. 2117, 1975].~~

16.01.060 Fees.

~~In addition~~Applicants for projects subject to environmental review pursuant to CEQA and the ~~usual fee for a permit or authorization, applicants therefor~~CEQA Guidelines shall pay the ~~fee~~fees that are prescribed by resolution of the Board of Supervisors or otherwise compensate the County for cost of preparing and processing documents required to be prepared by CEQA~~,~~ in accordance with its provisions and the State ~~EIR~~CEQA Guidelines, and County environmental review guidelines ~~and County rules.~~ [Ord. 2117, 1975].

Attachment 9

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Chapter 16.10 Geologic Hazards	
Existing Requirements	• The purpose of this chapter is to minimize public and private losses due to earthquakes, landslides, and coastal processes • Implements General Plan Sections 6.1 Seismic Hazards, 6.3 Slope Stability, and 6.4 Coastal Bluffs and Beaches • Requirements for geologic assessment • Permit conditions addressing seismic hazards, slope stability, including coastal bluffs and beaches, and flooding • Project density limitations due to geologic hazards
Proposed Amendments	• Relocate floodplain regulations, including relevant definitions, permit conditions, and appeal procedures, to new SCCC Chapter 16.13 • Update text references to licensed professionals • Update definitions to delete those related to floodplain regulations and add definitions for clarity • Update language on required deed recordation • Update permit conditions addressing coastal bluffs and beaches consistent with updates to GP/LCP Chapter 6 Public Safety Element Section 6.4 Coastal Bluffs and Beaches
Reason	• Government Code 65302(g) requires updates to the Public Safety Element addressing climate change, including sea level rise, in conjunction with the update of the LHMP • California Coastal Commission has published guidance for coastal communities to incorporate sea level rise in local policies • SCCC Chapter 16.10 implements the Public Safety Element and needs to be updated consistent with updates addressing sea level rise • Accommodates new floodplain regulations
Environmental Evaluation	• Less than significant impact • Reduction in time horizon in coastal bluff setback calculation remains consistent with CCC guidance • All other policies become stricter to reduce hazards and improve natural resource protection

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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.

(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.

(1~~6~~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.

(1~~7~~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."~~

(1~~9~~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) Redevelopment: 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 (194)(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.

(2015) "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.

(2117) "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.

(2219) "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.

(250) "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~~27) "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.

(~~37~~28) "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.

(~~38~~29) ~~"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~~9~~0) "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.

(~~40~~31) "Littoral drift" means the movement of beach sand parallel to the coast due to wave action and currents.

(~~41~~32) "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~~33) "Multiple-residential structure" means a single structure containing four or more individual residential units.

(~~47~~34) "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~~35) "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~~36) "Planning Director" means the Planning Director of the County of Santa Cruz or his or her ~~authorized employee~~designee.

(37) "Professional geologist" means a geologist who is licensed by the State of California to practice geology

(~~53~~38) "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~~39) "Recent" means a geologic feature (fault or landslide) which shows evidence of movement or activity within Holocene time (about the last 11,000 years).

(40) "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~~41) "~~Registered geotechnical (s~~Soils~~)~~ (geotechnical) engineer" means a Professional ~~e~~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~~42) "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~~43) 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~~44) "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~~45) "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 ~~g~~Geologic ~~h~~Hazards, Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The ~~declaration~~ notice shall ~~include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted~~be in a form approved by the County of

Santa Cruz, and shall include acknowledgements and agreements, as applicable to the specific project.

(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 ~~g~~Geologic ~~h~~Hazards, Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The ~~declaration~~ notice shall ~~include a description of the hazards on the parcel, and the level of geologic and/or geotechnical investigation conducted~~be in a form approved by the County of Santa Cruz, and shall include acknowledgements and agreements, as applicable to the specific project.

(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 ~~g~~Geologic ~~h~~Hazards, Acceptance of Risk, Liability Release, and Indemnification 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~~be in a form approved by the County of Santa Cruz, and shall include acknowledgements and agreements, as applicable to the specific project.

(~~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 expected design life of the structure, as determined through geologic, geotechnical, hydrologic, or other engineering reports. A new or redeveloped residential or commercial structure has an expected design life of 75 years. A critical structure or facility has an expected design life of 100 years.

(b) ~~For all development, including that which is cantilevered, and for nonhabitable structures, a minimum setback shall be established at least 25 feet from the top edge of the coastal bluff, or alternatively, the distance necessary to provide a stable building site over a 100-year lifetime of the structure, whichever is greater.~~ 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.

(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.~~ Within the Urban and Rural Services Lines, the calculation of the 75 or 100-year geologic/coastal setback, or alternate timeframe setback requested under an exception procedure, may take into consideration the effect of a legally established shoreline or coastal bluff protection measure. However, protection measures installed under an emergency coastal permit shall not be factored into the setback calculation unless a regular Coastal Development Permit is issued and all conditions of the permit are met. In addition, technical reports prepared for sites within the Urban and Rural Services Lines shall also include analysis based upon an alternative calculation of the 75 or 100-year setback that neglects any effect of an existing coastal protection structure, in order to provide a measure of the effects of the existing protection measure on the site conditions and provide information for decision making.

Existing shoreline and coastal bluff protective measures may have both beneficial and adverse impacts on public coastal resources, as well as on adjacent properties. The required setback analysis shall consider the condition of a legally established shoreline or coastal bluff protection measure and identify any impacts it may be having on public access, recreation, scenic views, sand supply and other coastal resources. The analysis shall identify any benefits the protection measure provides, 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 identified impacts, while maintaining or increasing public benefits. 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 established principles of nexus and proportionality, as well as ensuring that no adverse effects on adjacent properties are created

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

(e) Foundation replacement and/or foundation upgrades that meet the definition of development activity in Chapter 13.20 Coastal Regulations ~~per SCCC 16.10.040(19) and pursuant to SCCC 16.10.040(18)~~ shall meet the 25-foot minimum or the 75 or 100-year geologic/coastal hazard setback requirements.~~setback described in subsection (H)(1) of this section, except that a~~An exception to the setback requirement may be granted for existing structures that are wholly or partially within the setback if the property owner agrees to record a Notice of Geologic/Coastal Hazard prior to issuance of the building permit, and if the Planning Director determines that:

(i) The area of the structure that is within the setback does not exceed 25 percent of the total area of the structure; or

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

(~~e~~f) Additions, including second story and cantilevered additions, which extend the existing structure in a seaward direction, shall comply with the minimum 25-foot and 75 or 100-year setback.

(~~f~~g) 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 of ~~g~~Geologic ~~h~~Hazards, Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The ~~declaration~~Notice shall include a description of the hazards on the parcel and the level of geologic and/or geotechnical investigation conducted, and additional acknowledgements and agreements as applicable to the specific project.

(~~g~~h) ~~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~~development or public facilities.

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

(j) Accessory structures must include a condition of approval that requires the property owner and all successors in interest to remove the structure if the County Geologist, the Building Official or a licensed geotechnical engineer determines that the accessory structure is at risk of failure due to erosion, landslide or other form of bluff collapse or geologic/coastal hazard. In the event that portions of the development fall to the bluffs or ocean before they are removed/relocated, the landowner will remove all

recoverable debris associated with the development from the bluffs and ocean and lawfully dispose of the material in an approved disposal site.

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

(2) Exemption.

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

~~For the purposes of this section, "the unfavorable alteration of drainage" is defined as a change that would significantly increase or concentrate runoff over the bluff edge or significantly increase infiltration into the bluff. "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 protection structures shall minimize visual impact by employing materials that blend with the color of natural materials in the area.~~ If impacts to coastal resources may result from implementation of the project, then require appropriate mitigation consistent with principles of nexus and proportionality for the nature of the improvement. Mitigation approaches may include activities either on-site or off-site, and may include payment of in-lieu fees to either the County of Santa Cruz or to the California Coastal Commission, to be used on projects or programs that mitigate impacts with priority given to activities that provide greatest public or environmental benefits.

(f) Any new protection measure should be placed as close as possible to the coastal bluff or development requiring protection and must be designed to minimize adverse impacts to recreation and to minimize visual intrusion, and to provide adequate mitigation of impacts. Shoreline protection measures shall minimize visual impact by employing materials that blend with the color or natural materials in the area, and by using vegetation for screening as appropriate to the setting.

(~~f~~g) 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~~h) All shoreline protection structures shall include a permanent, County approved, monitoring, ~~and~~ maintenance, and repair program prior to finalization of the building or grading permit for the structure. Such programs shall include a report to the County after completed construction of the structure, and every five years or less thereafter, as determined by either the County Geologist or a qualified professional, detailing the condition of the structure and listing any recommended maintenance and repair work.

The monitoring plan and periodic report shall address impacts to shoreline processes and beach width and impacts to public access and availability of public trust lands for public use. Monitoring, maintenance and repair 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.

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

(~~h~~j) 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.

(k) As a condition of approval for new development or redevelopment that is protected by an existing coastal protection structure and for all development involving construction of a new coastal protection structure require conditions of approval that include, but are not limited to, the following:

(i) Require mitigation of adverse impacts on coastal resources, and require payment of a Shoreline Mitigation Fee.

(ii) For sites protected by existing rip rap, require that the applicant submit a report at the time of filing an application for a building permit, including a Recovery Plan for the maintenance and repair and possible removal of all or a portion of the existing approved rip rap revetment, to recover migrated rip rap and to provide for least disturbance of the beach and shoreline while also functioning as necessary to protect the structures on and adjacent to the parcel.

(iii) For projects located within the Urban and Rural Services Lines, property owners must agree and acknowledge that approved coastal shoreline protection/armoring structures may be maintained and repaired (with building or grading permits as needed) in accordance with conditions of approval of Coastal Development Permits authorizing the structures; but that new, replacement, reconstructed or redeveloped shoreline protection measures will require updated technical reports and approval of another coastal development permit. The property owner and /or any future heirs or assigns must further acknowledge and agree that any future shoreline protection/armoring structure (including but not limited to seawalls, revetments, retaining walls, tie backs, caissons, piers, groins, etc.), that exceed previously authorized maintenance and repair of the existing structures, will only be considered for approval if proposed as part of a comprehensive strategy outlined in an approved Shoreline Management Plan.

(4) ~~Alteration of Damaged Structures. Reconstruction, repair, rebuilding, replacement, alteration, improvement, or addition to damaged structures located on a coastal bluff shall proceed according to the following chart:~~ Modification, Reconstruction, or Replacement of Damaged Structures on Coastal Bluffs. If structures located on or at the top of a coastal bluff are

damaged as a result of coastal hazards, including slope instability and seismically induced landslides, and where the loss involves 65 percent or more of Major Structural Components, allow reconstruction or replacement if all applicable regulations can be met, including the minimum 25-foot and the applicable 75 or 100-year geologic/coastal setbacks, or alternate setback authorized by an approved setback exception that establishes a shorter-term expected life for the structure.

For structures involuntarily damaged by other than coastal hazards (fire, for example), where the loss involves 65 percent or more of the Major Structural Components, allow in kind reconstruction or replacement if the following conditions are met:

(a) the area of the structure that is within the geologic/coastal hazard setback does not exceed 25% of the area of the structure, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit; OR

(b) the structure cannot be relocated to increase the setback due to inadequate parcel size, and the property owner has agreed to record a Notice of Geologic/Coastal Hazards, Acceptance of Risk, and Liability Release prior to issuance of the building and/or grading permit.

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

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

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

Exceptions: Public beach facilities and replacements

~~Extent of Damage~~	~~50% or More of the Value of Structure~~		~~Less Than 50% of the Value of Structure~~	
~~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%~~	~~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.~~

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)				
extends into setback).				
Existing structure does not meet setback but could by relocating.	Meet all regulations, including setback for existing structure.	To repair or replace in kind, meet all regulations except setback. Otherwise meet all regulations, including prescribed minimum setback.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations, including prescribed minimum setback.	Exempt from regulations if repaired/replaced in kind. Otherwise meet all regulations, including prescribed minimum setback.
Existing structure does not meet setback 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 75 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 of ~~g~~Geologic/Coastal ~~h~~Hazards. Acceptance of Risk, Liability Release, and Indemnification with the County Recorder. The ~~declaration~~Notice shall include a description of the hazards on the parcel and the level of geologic and/or geotechnical investigation conducted~~.~~, and additional acknowledgements and agreements as applicable to the specific project.

(8) Removal Conditions/Development Duration. New development and redevelopment on private property located in areas subject to coastal hazards shall be conditioned to require that it be removed and the affected area restored if:

(a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed;

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

(c) the development is no longer located on private property due to the migration of the public trust boundary;

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

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

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

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

(12) Repetitive loss properties shall be subject to the requirements of Sections 16.10.070(G)(4) and 16.10.070(G)(5) regarding damage due to coastal bluff erosion and storm wave impacts and inundation. Repetitive Loss property is any habitable building for which two or more coastal hazard events caused damage, the repair of which meets or exceeds any of the criteria in Policy 6.4.25 A or C within any rolling ten-year period since 1978. Multiple losses at the same location within 10 days of each other are counted as 1 loss. The loss history includes all ownership of the property since 1978 or since the building's construction if built after 1978.

(~~8~~13) 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 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 or if the exception is necessary to avoid an unconstitutional taking of private property without just compensation pursuant to Policy 6.4.10.

(B) Reason for Request. A request for an exception shall state in writing the reason why the exception is requested, the proposed substitute provisions, when the exception would apply, and 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~~27), exists; and

(2) The project is necessary to mitigate a threat to public health, safety, or welfare or to avoid an unconstitutional taking of private property without just compensation pursuant to Policy 6.4.10; and

(3) The request is for the smallest amount of variance from the provisions of this chapter as possible; and

(4) ~~Adequate m~~Measures will be taken to ensure consistency with the purposes of this chapter and the County General Plan to the maximum extent feasible.

~~(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].

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Attachment 10

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Chapter 16.13 Floodplain Regulations	
Existing Requirements	• Floodplain regulations currently co-located in Chapter 16.10 Geologic Hazards with regulations address other geologic hazards such as earthquakes and slope stability • Implements General Plan Section 6.6 Flood Hazards • Establishes the special flood hazard areas based on FEMA maps • Rules and regulations for development in flood hazard areas
Proposed Amendments	• Creates a new Chapter 16.13 Floodplain Regulations • Transfers existing floodplain regulations to the new chapter • Adds findings of fact regarding flood hazards in the County • Includes additional reasons in a Statement of Purpose why the ordinance is necessary • Describes in more detail the full scope of what the ordinance applies to • Adds additional basis for establishing special flood hazard areas • Coordinates with the State Building Code and the local Building Official • Adds more definitions of terms consistent with updated ordinance text • Describes duties, powers, and responsibilities of Floodplain Administrator • Explains in detail the evaluation of existing structures to determine substantial improvement or substantial damage • Requires Floodplain administrator to keep all records permanently • Requires floodplain permits • Describes in detail the technical information required to be submitted with applications • Increases required freeboard, 2 feet in flood hazards areas and 3 feet in coastal high hazard areas. • Includes development standards for additional types of structures • Revised the grading requirements in flood hazards areas, “no net increase” • Include inspection requirements • Revised exception findings
Reason	• Since the current County floodplain regulations were adopted in 1982 numerous clarifications of floodplain regulations have been incorporated into the California Building Code and through FEMA Technical Bulletins • A comprehensive set of updated floodplain regulations is too extensive to remain in the Geologic Hazards ordinance and requires a separate Ordinance • Government Code 65302(g) requires updates to the Safety Element addressing flood hazards and climate change upon the next update of the Housing Element and the LHMP, respectively • SCCC Chapter 16.13 implements the Public Safety Element and needs to be updated consistent with updates addressing flood hazards
Environmental Evaluation	• No impact • No change to existing requirements, new ordinance addresses existing requirements in a more comprehensive manner

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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

(A) 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.

(B) 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.

(C) 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.

(D) 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.

(E) 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, however projects are not required to design to the draft or preliminary standards and may be issued building permits based on the existing adopted FIRM. However, no building permit shall be issued that is not in compliance with the applicable adopted FIRM, and projects that have received discretionary permit approvals may need to be revised in order to be issued a building permit, if the FIRM maps have changed between the date of the discretionary permit and the time that the building permit is approved and ready for issuance.

(F) 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, which are adopted as Chapter 12.10, Building Regulations, of the Santa Cruz County Code, with local amendments as adopted by the County Board of Supervisors.

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 and 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 Division of the Planning 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 a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs to a 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:

(a) The overflow of inland or tidal waters.

(b) 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 analyses 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 three feet in coastal high hazards areas and two feet in all other flood hazard areas.

(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:

(a) 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;

(b) 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;

(c) 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

(d) 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:

(a) Built on a single chassis;

(b) 400 square feet or less when measured at the largest horizontal projection;

(c) Designed to be self-propelled or permanently towable by a light-duty truck; and

(d) 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:

(a) 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

(b) 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 the building codes.

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, or a qualified licensed contractor who has submitted a proposal 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 Planning Director or 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, Acceptance of Risk, liability Release, and Indemnification with the County Recorder. The Declaration shall be in a form approved by the County of Santa Cruz and shall include acknowledgements and agreements, as applicable to the specific project, including but not limited to, 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 condition 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. If a building permit has been issued then the validity of the floodplain development permit shall be linked to the life and validity of the associated building permit and if the building permit is valid then the floodplain development permit remains valid. Extensions to floodplain development permits shall granted pursuant to the provisions for extensions to 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 or designees 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 or designee 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.

Attachment 11

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Chapter 16.20 Grading Regulations	
Existing Requirements	• Implements General Plan Section 6.5 Erosion and other sections • Rules and regulations to control regular grading and agricultural grading • Design standards for cuts, fills, drainage, and roads and driveways • Exempt agricultural work from grading permit requirements • Grading less than 1,000 cubic yards on less than 50 percent slopes qualifies for a Class 4 Minor Alteration to Land exemption from CEQA per County Environmental Review Guidelines
Proposed Amendments	• Defines ministerial and discretionary grading permits • Define grading less than 1,000 cubic yards on less than 50 percent slopes as a ministerial permit and therefore exempt from CEQA • New definition for specialized grading activities • Limit the agricultural work exemption to less than 20 percent slopes • Limit agricultural grading permits to less than 20 percent slopes • Change term variance to exception • Add finding for denial of grading related to specialize grading activities • Additional information required for emergency permit approvals • Revise design standards for roads and driveways consistent with General Plan and Fire Code • Add a section addressing exceptions to road and driveway standards consistent with General Plan
Reason	• Align the ordinance with the current of processing certain grading permits in a similar manner as a ministerial permit • Current trends in agriculture and cannabis cultivation call for a new category of specialized grading activities • Place a 20 percent slope limitation on grading that qualifies for the agricultural work exemption • Place a 20 percent slope limitation on grading that qualifies for an agricultural grading permit • Incorporates updated fire department standards in grading ordinance • Variances require specific findings that are different than the finding in the Grading Ordinance that are better characterized as exception findings
Environmental Evaluation	• Beneficial impact • Addresses a new category of specialized grading activities to remain current with industry trends • Limits exempt agricultural work and other agricultural grading that does require a permit to less than 20 percent slopes • Threshold for CEQA exemption is unchanged, grading that currently qualifies for a CEQA exemption would qualify for a ministerial grading permit which is also exempt from CEQA

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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 grading 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 d~~Definitions shall be as defined in the General Plan or Local Coastal Program Land Use Plan glossaries, and ~~as follows~~ for the purposes of this chapter, the following definitions apply:

"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 and for vineyards and associated terracing; 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 for purposes defined in the Chapter as agricultural work and, with the exception of vineyards, does not include grading on hillsides or slopes of twenty percent or greater or grading for specialized agricultural activities as defined in 16.20.030. ~~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.

"Emergency" means a sudden, unexpected occurrence involving a clear and present danger that demands immediate action to prevent loss of or damage to life, health, property or essential public services.

~~"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.

"Grade" means the vertical location of the ground surface, or the degree of rise or descent of a slope.

"Grading" means excavating, or filling, dredging, diking, prospecting, exploratory mining operation or combination thereof.

"Key" 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

"Land disturbance" means clearing, excavating, grading or other manipulation of the terrain.

"Littoral cell" means a continuous section of shoreline within which sand moves in a prevailing direction in response to seasonal current.

"Permittee" means the property owner, or any contractor or other person undertaking grading upon the property of the property owner, pursuant to a grading permit granted according to the provisions of this chapter.

"Planning Director" means the Director of the Planning Department or a designated employee.

"Professional geologist" means a geologist who is licensed by the State of California to practice geology

“Riparian 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.

“Road gradient (percent)” means a vertical rise multiplied by 100 and divided by horizontal run.

“Road” or “roadway” means an open way for vehicular traffic serving more than two habitable structures or parcels. (See “driveway.”)

“Security” means a cash deposit, time certificate of deposit or equivalent security acceptable to the County.

“Site” means a parcel of land or contiguous combination thereof, where grading is performed or proposed.

“Slope” 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

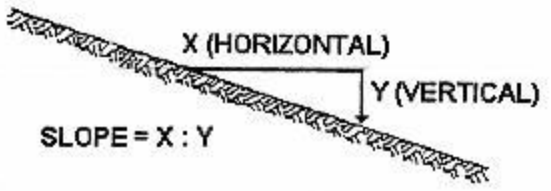


Figure 2

"Soil" means naturally occurring superficial deposits of earth material overlying bedrock.

"Soil (geotechnical) engineer" means a professional civil engineer, ~~registered~~licensed in the State of California, experienced and knowledgeable in the practice of soil and foundation engineering.

"Specialized agricultural activities" means any agricultural activities involving greenhouses, growing in indoor structures, aquaculture and cannabis activities.

"Stream" 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.

"Terrace" means a relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

"Waterbreak" means a ditch, dike, dip or combination thereof, constructed to effectively divert water as an aid to erosion control.

"Winter 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~~grading permit shall be required for each site and shall be obtained as follows:

(A) Planning Commission. All ~~approvals~~applications for grading permits involving 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 on a site 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, Level VI as a discretionary permit application that is the subject of a noticed public hearing and acted upon by the Planning Commission.

(B) Planning Director or designee. Applications for grading permits involving less than 1,000 cubic yards of earth material on less than 50 percent slopes shall be processed as ministerial building permits and comply with standards of applicable county codes and recommendations of a soils or geotechnical report in order to be approved and issued. Applications for grading permits involving any amount of grading on greater than 50 percent slopes, or grading between 1,000 and 8,000 cubic yards of earth material on a site and which is not located in a designated scenic area or visible from a scenic road ~~All other permits~~ shall be processed according to Chapter 18.10 SCCC, Level III. Concurrent approvals shall be processed according to Chapter 18.10.123 SCCC.

(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 coastal zone regulations (Chapter 13.20 SCCC) and requirements for coastal development permits, 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~~actively 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 or growing area on land with less than twenty percent slopes, for a crop for continued agricultural use, and not including grading for specialized agricultural activities as defined in this chapter. (All other non-exempt agricultural grading shall require either an agricultural grading permit or a regular grading permit in compliance with this chapter).~~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 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 submitted with the application~~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 or designee:

(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, and delineation of hillsides or slope areas of twenty percent or more.

(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~~A storm water pollution 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) and Runoff and Pollution Control ordinance (Chapter 7.79 SCCC) shall accompany every proposed grading plan; including information about whether a Land Clearing Permit or a Winter Grading Operations Permit is also being requested for the grading activity pursuant to provision of Chapter 16.22, Erosion Control.

(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 or designee, 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 or designee shall be incorporated in the grading plans and specifications.

(15) When required by the Planning Director or designee 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 or designee shall be provided.

(D) Starting and Completion Dates. Each application for a grading permit shall state estimated starting and completion dates and whether phasing of activity is anticipated. [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~~exception 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, an ~~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 an ~~variance~~exception is granted, can be better and/or more economically designed and constructed than if an ~~variance~~exception were not given. An ~~variance~~exception shall not be granted if the ~~part~~result of an ~~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 or designee within 30 days after receipt of all information required for submittal of the application~~issuance of the approval~~. The Planning Director or designee shall notify the applicant in writing within 30 days of the time the application is filed, of any deficiencies that must be corrected in order to allow for approval of the grading permit. The Planning

Director ~~or Planning Commission~~ shall approve an application for ~~approval~~a grading permit if the plans filed therewith conform to the requirements of this chapter, zoning ordinances, any use permit and/or design review conditions and other applicable laws. The Planning Commission shall take its action after carrying out a noticed public hearing on the application and shall approve, conditionally approve or deny the application, based upon whether or not the proposal is consistent with the General Plan, Local Coastal Program, and applicable provisions of the County Code including but not limited to permit approval findings within Chapter 18.10 SCCC.

(C) Denial of ~~Approval~~Grading Permit Application.

(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 the geologic hazard assessment or other geotechnical or geology report prepared for the application, or as addressed by the slope stability provisions of SCCC 16.10.0~~5~~70(E).

(e) If the project is for the purpose of a new, extended or widened road providing access to enable a specialized agricultural activity or to an agricultural growing area on slopes of twenty percent or more, and the road work will involve a degree or nature of grading that involves significant grading which may not be wholly consistent with existing natural topography or grades of the subject area, and which does not provide off-setting public safety, neighborhood or community benefits to a degree that provides reason to support the proposed degree or nature of grading, as specified in findings for approval of the grading permit.

(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~~acting to approve 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; and a requirement that a Winter Operations Erosion Control permit be obtained if grading will occur between October 15th and April 15th, pursuant to the requirements of Chapter 16.22, Erosion Control..

(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.

(10) Requirement that a Land Clearing Permit be approved either in conjunction with the subject grading permit, or prior to grading operations involving land clearing taking place, if land clearing is subject to the requirements of Chapter 16.22, Erosion Control.

(F) Approved Grading Plans. When the Planning Director issues the grading permit that has been approved by the Director of the Planning Commission, 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 grading permits ~~approvals~~ granted pursuant to this chapter whether for minor or major 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) for minor changes of project, changes of conditions for administratively issued grading permits, and extensions of time limits for any grading permit; and as a major amendment (Level VI) for major changes of project and changes of conditions of approval for grading permits approved the the Planning Commission.

(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 grading permit is issued may be considered abandoned and destroyed ~~by the Planning Director~~ if not picked up by the applicant within ~~90~~180 days of issuance of the latest staff review comments.

(I) Posting of Permit. At the time a grading permit is issued which has been the subject of a Planning Commission public hearing, the County shall also publish a copy of the permit ~~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 on the planning department website, and retain it on the website until the activity is final, so that members of the public may assess information about the approved grading activity. All other grading permits shall retain the job copy of the approved grading plans on site.

(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 all of the work or the first phase of work within ~~180 days~~one year after the date of the issuance of the grading permit, and the remaining phase(s) of the work within the following year or in accordance with the timeline for a development permit that is associated with the project.

If the permittee is unable to complete the work within the specified time, he/she 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 in advance and in writing~~as part of a variance approved~~ by the Planning Director or Building Official.

(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~~grading permits 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 a Winter Operations Erosion Control Permit pursuant ~~authorized in advance by the Planning Director with reference~~ to the erosion control ordinance has been approved and issued.

(P) Validity. The issuance or granting of approval of a grading permit and its 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~~grading permit 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 subject to environmental review consistent with the most current adopted versions of California Environmental Quality Act (CEQA) and CEQA Guidelines.~~submitted to the Environmental Coordinator pursuant to Santa Cruz County environmental impact 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 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 shall be notified. 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. A~~n approval~~ grading permit 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 and coastal bluff protection structures.

A grading permit approval shall be required for all shoreline and coastal bluff 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 activities, even if the activities are being carried out in conformance with an approved Monitoring, Maintenance and Repair Program and do not require a coastal development permit. 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 or designee. 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, County Geologist, or designees. [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; and compliance with requirements of Chapter 13.20 coastal zone regulations shall also be required, if applicable. ~~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) Applications for an emergency grading permit shall include the following:

(1) Letter from the project civil and/or geotechnical engineer describing the nature of and recommended measures necessary to address the emergency situation, along with monitoring and testing requirements to be fulfilled by the engineering professional or their designee during construction.

(2) Approximate construction schedule and phasing, along with corresponding best management practices to prevent erosion and sediment from leaving the construction site.

(~~B~~C) 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~~grading permit shall be voided if the ~~approval~~permit is not exercised within 15 days of issuance. The emergency grading 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~~D) 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~~E) Within 90 days of the issuance of an emergency ~~approval~~grading permit, the owner of the property shall submit an as-built plan showing completed emergency grading, along with all construction monitoring and testing reports from the responsible engineer, all required technical reports and final 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~~F) 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 Application Fees—Subdivision. No plan-checking or grading ~~approval~~permit application fees shall be charged for a grading ~~approval~~permit 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~~of grading permits shall not be valid and work shall not be started until the required securities have been provided as determined by the Planning Director. 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~~1.00 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~~50 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~~the engineer's 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).

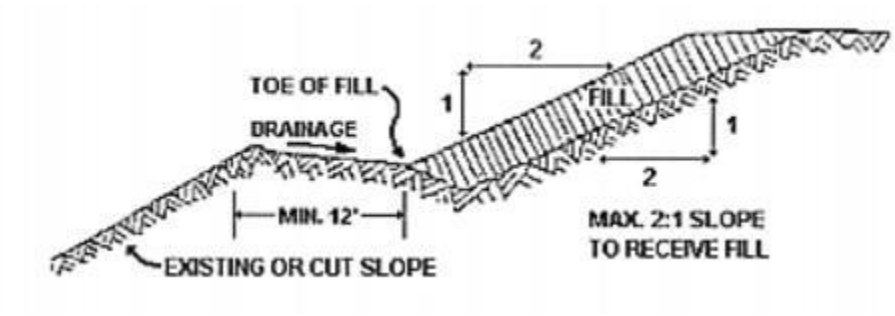


Figure 3

(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 finds this~~found to be 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~~or equivalent as required by the current edition of the Californai Building Code. Compaction tests may be required.

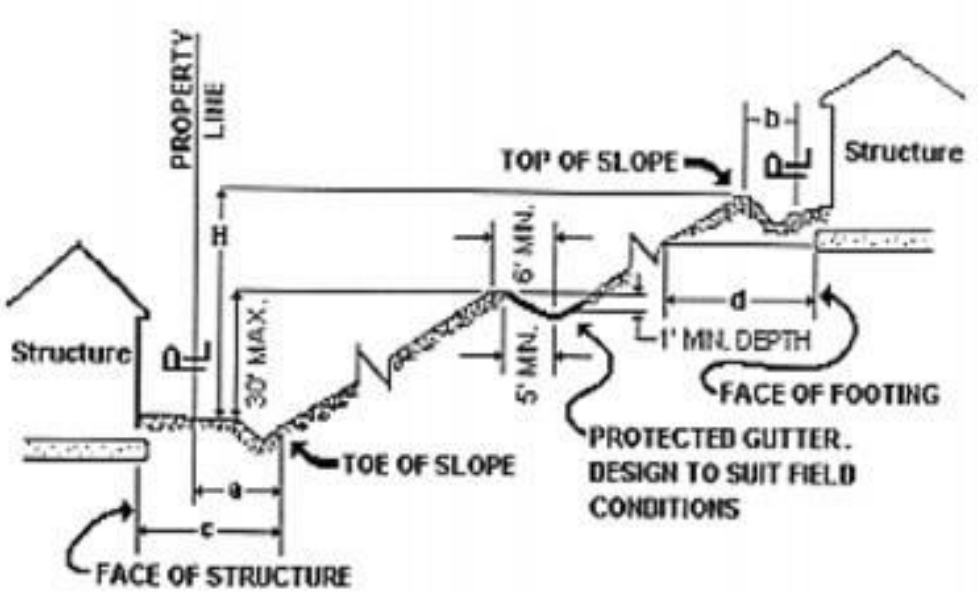
(G) Drainage and Terraces. Drainage facilities and terraces shall be provided as required by SCCC 16.20.170. [Ord. 3321 § 1, 1982; Ord. 2500, 1977].

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 grading 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 shall conform to the provisions of this section. ~~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.~~Require all new structures, including additions and Accessory Dwelling Units of more than 500 new square feet (not including Conversion ADUs), added to single-family dwellings on existing parcels of record, to provide and maintain an adequate driveway or road for fire protection in conformance with the adopted standards of State law, County Fire Code, and local fire district ordinances. The County Fire Department has established the following standards for access roads, and the local fire districts have also adopted these standards:

(~~B~~A) Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet, exclusive of shoulders, except for approved security gates, and an unobstructed vertical clearance of not less than 15 feet.

Exceptions:

Within the State Responsibility Area (SRA) of Santa Cruz County, all driveways serving two or fewer habitable structures shall have an unobstructed width of not less than 12 feet and an unobstructed vertical clearance of not less than 15 feet.

Within the Local Responsibility Area (LRA) of Santa Cruz County, 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. ~~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, or other environmental impacts), a 12-foot-wide all-weather road with 12-foot-wide by 3~~0~~5-foot-long turnouts located approximately every 500 feet may be approved with the approval of the fire code official ~~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.~~

Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved by the fire code official.

~~(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.)~~

~~(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.~~

~~(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.~~

~~(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.)~~

(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 and fire districts within the unincorporated area of Santa Cruz County.

(C) The access road surface shall be “all weather”, which means a minimum of six inches of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95 percent compaction for grades up to and including 5 percent and shall be maintained. For grades up to and including 15 percent the base rock shall be overlain by oil and screen. Where the grade of the access road exceeds 15 percent, the 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 16 percent in State Responsibility Area (SRA) or 20 percent in Local Responsibility Area (LRA).

(E) Areas within 10 feet horizontal and 15 feet vertical on each side of portions of highways, public and private streets, roads and driveways which are ordinarily used for vehicular traffic shall be cleared of flammable vegetation and other combustible growth. Design of such area may be found in Santa Cruz County Fire Prevention Officers Standards.

(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. Gate entrances shall be at least 2 (two) feet wider than the access road being secured, but in no case shall the width be less than 14 (fourteen) feet unobstructed horizontal clearance and unobstructed vertical clearance of 15 (fifteen) feet. When gates are to be locked, the installation of a key box or other acceptable means for immediate access may be required.

(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) In the State Responsibility Area (SRA) no roadway shall have a horizontal inside radius of curvature of less than 50 feet. Roadways with a radius of 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. In Local Responsibility Area (LRA) the minimum centerline radius shall be 35 feet.

(~~I~~J) Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.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.

(K) Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire code official

All bridges shall be a minimum of 20 feet of clear width. The fire code official may allow the width to be reduced for access to U-1, U-2 or R-3 occupancies in accordance with Objective 6.5 – Fire Hazards of the Santa Cruz County General Plan.

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.

Every private bridge shall be recertified every ten years or whenever deemed necessary by the fire code official. Such recertification shall be in accordance with the requirements of 503.2.6.2.

An existing private bridge not conforming to these regulations may be required to conform when in the opinion of the fire code official, such repairs are necessary for public safety.

(~~J~~L) Entrances from private roads or driveways into private roads shall be limited in gradient as shown by Figure 4.

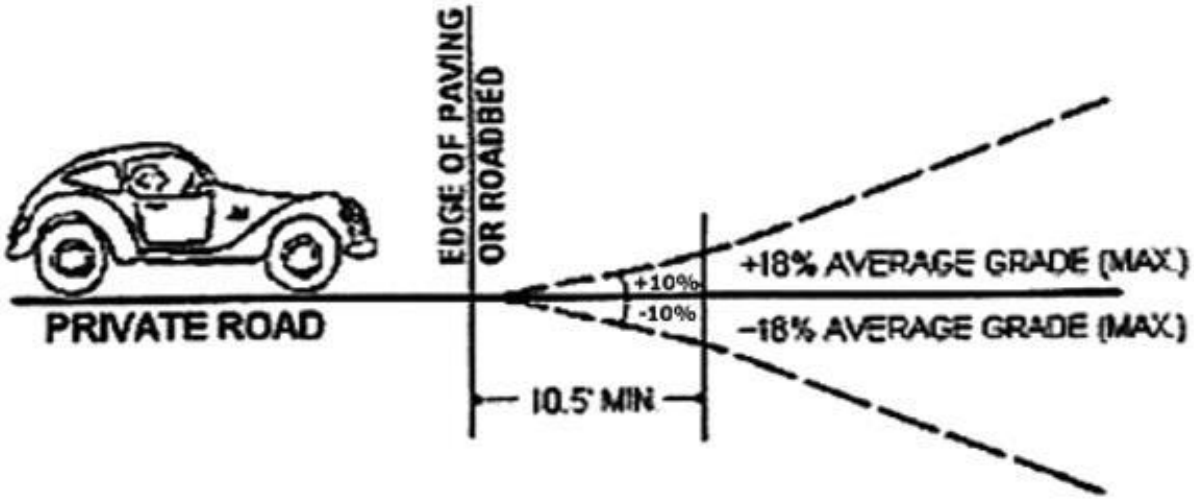


Figure 4. Private Road or Drive

~~(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.~~

~~(L) A horizontal clearance of 16 feet and a vertical clearance of 14 feet shall be maintained on all roadways, driveways, and turnouts.~~

(M) Where a private driveway will connect to a County-maintained road, an encroachment permit shall first be obtained from the Public Works Department.

(N) All private access roads, driveways, 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.

(O) 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.

(P) All access road and bridge improvements required under this section shall be made prior to permit approval, or as a condition of permit approval.

(Q) 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. [Ord. 4678 § 1, 2002; Ord. 4578 § 5, 1999; Ord. 3599 § 8, 1984; Ord. 3438 § 1, 1983; Ord. 3321 § 1, 1982; Ord. 2500, 1977].

16.20.185 Exceptions to standards for private roads and driveways

Exceptions to these standards and requirements that apply to all new structures (except Conversion Accessory Dwelling Units or ADUs 500 square feet or less), including additions or ADUs of more than new 500 square feet to single-family dwellings on existing parcels of record, may be granted at the discretion of the fire code official for single-family dwellings on existing parcels of record as follows:

(A) When the existing access road is acceptable to the Fire Department having jurisdiction.

(B) In addition, any of the following mitigation methods may be required prior to issuance of a building permit and/or as a condition of discretionary development approval:

(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.

(C) The level of road improvement required shall bear a reasonable relationship to the magnitude of development proposed.

16.20.195 Agricultural grading.

(A) General. All permits ~~approvals~~ for agricultural grading shall be issued by the Planning Director. Work remains subject to the coastal zone regulations of Chapter 13.20, requirements of Title 16 Environmental Regulations, and other applicable provisions of local or state regulations. Applications for grading permits for special agricultural activities as defined by this chapter shall not be processed under this agricultural grading permit section, and shall comply with standard grading permit application requirements. 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 permits 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 and/or engineer for the following projects:

(1) On-site water and sediment retention (ponds).

(2) Grading with major erosion potential.

The conditions of the design or review shall be part of the grading 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~~Application 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 or designee 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~~Department 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 or designee 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 grading permit, 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~~grading 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 grading permit or 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 or designee determines that any grading occurring in the County does not comply with the ~~development~~approved grading permit or this chapter, ~~he~~the Planning Director or designee 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 or designee determines that grading has been done without the required grading~~development~~ permit, ~~he~~the Planning Director or designee 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~~a qualified licensed professional replacement has agreed to accept the responsibility within the required area of ~~his~~ 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~~at the completion of the project the licensed professional 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].

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Attachment 12

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Chapter 16.22 Erosion Control	
Existing Requirements	• Implements General Plan Safety Element Section 6.5 Grading and Erosion • No person shall cause or allow accelerated erosion • Requires erosion control plan with all applications • Requires permits for land clearing and winter grading operations (Level III) • Requires project design to avoid steep slopes and erodible areas • Prohibits site disturbance prior to permit issuance
Proposed Amendments	• Change “approval” to “permit” with reference to land clearing and winter operations erosion control. Fees already exist for these types of permits. • Reduce threshold for a land clearing permit from 1 acre to 1/4 acre countywide. • Change “variance” to “exception”
Reason	• Documented increase in land clearing activities and accelerated erosion, and related environmental impacts, in recent years • Better oversight is needed to ensure adequate erosion control and environmental protection • 1/4 acre is a reasonable amount not associated with any other development • Larger amounts can be approved with a stand-alone development permit, or as part of a permitted construction project • Consistent with cannabis cultivation regulations
Environmental Evaluation	• Beneficial impact • Greater oversight of land clearing activities in the County • Existing language in the ordinance would be better described as an exception. Variance is inappropriate because that term triggers different findings.

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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 and tree cover, disruption of water supply, and increased danger from flooding, and to implement Local Coastal Program land use policies. The regulatory standards of this Chapter shall be required and incorporated into proposed project plans prior to approval and issuance of a building or grading permit for a project. For projects that propose land clearing or winter operations as defined in this Chapter, a land clearing permit or winter operations erosion control permit shall be required, which are considered as administrative discretionary permits under Title 18 of the County Code. [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 required of all projects for project planning, preparation of erosion control plans~~,~~ and runoff control~~,~~; and establishes requirements for discretionary land clearing permits~~,~~ and winter operations erosion control permits; and establishes procedures for administering th~~o~~se 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, forest, 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 land clearing and land disturbance for construction of access to a development site or parcel 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 land clearing and land disturbance for construction must be confined.

"Development permit" as used in this Chapter means any permit or approval 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 which requires a grading permit under Chapter 16.20 Grading Regulations.

"Land clearing" means the removal of one quarter acre or more of natural vegetation (including forest areas) down to duff or bare soil, for any purpose and by any method.

"Land clearing ~~approval~~permit" means a~~n~~ discretionary administrative development permit, which if granted ~~approval granted by the Planning Director which~~ authorizes the permittee to carry out land clearing, and which may be subject to conditions of approval.

"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, driveway, 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 development, building, or grading 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, which can also include an approved private driveway or other site access feature.

"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, land 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, building permit, or 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 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 or designee. 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 if initial measures are insufficient to prevent accelerated erosion given weather or other conditions. Specific additional measures may be required by the Planning Director or designee. Property owners will be given a reasonable amount of time, as determined by the Planning Director or designee, 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 a land clearing permit or a winter operations erosion control permit, or otherwise required pursuant to~~,~~ the regulations of 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,~~A condition of approval of a discretionary development permit or land division~~,~~ shall require that an erosion control plan be incorporated into the building and grading plans indicating proposed methods for the control of runoff, erosion, and sediment movement. ~~shall be submitted and approved.~~ Prior to issuance of a building, grading, land clearing or winter operations erosion control permit, erosion control measures consistent with the standards of this chapter shall be included in project plans submitted and approved. Erosion control plans may also be required by the Planning Director or designee 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 or designee prior to project approval. No grading or land clearing or winter grading operations 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 permits ~~approvals granted~~ pursuant to this chapter shall be made according to Chapter 18.10 SCCC, Level III administrative permit process, and shall include two sets of plans for each application and may be processed as concurrent approvals pursuant to Chapter 18.10. Particular components may be required by the Planning Director or designee. 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 submitted in an application for a land clearing permit 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 development 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~~professional who prepared~~ing~~ the approved plan and certification of proper installation of control measures may be required by the Planning Director or designee. 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 grading, or land clearing permit, or 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 or designee 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 or designee 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 designee, 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~~and shall be identified on the approved development, grading, building, land clearing grading and/or 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, Level III administrative development permit:

(1) Any amount of clearing in a sensitive habitat, as defined in this chapter.

(2) One-quarter acre or more of clearing in any other area subject to county jurisdiction.~~the Coastal Zone if also in a least-disturbed watershed, a water supply watershed, or an area of high erosion hazard.~~

~~(3) One quarter acre or more of clearing in all areas not included in subsection (A)(1) and (2) 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~~ or amendment of the approved development permit 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 a land clearing permit which includes 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 erosion control permit.

(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 or designee 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 land clearing and/or grading 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 as conditions of approval of the winter operations erosion control permit:

(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 or designee.

(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 or designee 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 or designee shall stop operations during periods of inclement weather if ~~he~~it is determine~~d~~s 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 or designee 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, building or grading 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 (Reclamation Plan);

(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 ~~variance~~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 ~~at the level specified in SCCC 16.22.060(B).~~ Level III administrative discretionary permits

(B) A request for ~~a~~n exception ~~variance~~ must state in writing the provision from which it is to be ~~varied~~excepted, 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, 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 an exception ~~variance~~ is granted, can be better and/or more economically designed and constructed than if an exception ~~variance~~ were not given. An exception ~~variance~~ shall not be granted if the part of 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~~exception requests, ~~and for~~ land-clearing permits, and winter operations erosion control 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 or designee 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 with approved land clearing, witner operations erosion control, or other development plan, permits and approvals.

(3) Final Inspection. To determine compliance with approved plans and specifications.

(B) Notification. The permittee shall notify the Planning Director or designee at least 24 hours prior to start of the authorized work, and also ~~nine business~~24 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 or winter grading operations 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 winter grading operations; or the land clearing or witner grading 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 or winter grading 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].

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