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December 21, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Land Use Chapter

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 2: Land Use.

- 1. General Land Use Policies.** The Land Use element is missing a suite of general land use policies applicable to all development in the Coastal Zone. We highly recommend including a section at the beginning of this element that includes general policies on land use in Sonoma County. Sample policies from the certified Half Moon Bay LCP are listed below, as examples.

2-1. Land Use Plan Map. *Apply Land Use Plan designations in accordance with the policies of this Land Use Plan.*

2-2. Complete Policy Compliance. *Ensure that all new development as defined by the Coastal Act complies with the policies of the Land Use Plan. New development means any project for which a coastal development permit is required. Allow flexibility only when the Land Use Plan provides for an exception.*

2-4 Sustainable Land Use Pattern. *Concentrate new development within the defined Urban Boundary by prioritizing development in the Town Center, allowing for infill development within established neighborhoods, and protecting the rural, open space, agricultural and habitat values of undeveloped areas.*

2-6. Housing Diversity and Affordability. *Encourage a diversity of housing types, including housing at a range of affordability levels, densities, sizes, and ownership types with equitable access to environmental benefits. Meet the needs of Half Moon Bay's diverse population, including young families, multi-generational families, students, young professionals, and seniors.*

2-8. Community Needs. Support the development of land uses desired by the community and which contribute to quality of life. Uses include affordable and diverse housing types such as farmworker housing and smaller homes; light industrial uses including live-work and artisan uses; adaptive reuse of heritage buildings; agriculture and agriculture-compatible uses along with supportive accessory uses; commercial including neighborhood and local-serving uses; quasi-public uses including childcare, healthcare, animal care, and assisted living; and public uses including parks and other community facilities.

2-11. Development Permit Requirements. Require a coastal development permit for any project that meets the definition of development pursuant to Coastal Act Section 30106. Exempt certain categories of development from coastal development permit requirements pursuant to Title 14, Division 5.5, Chapter 6 of the California Code of Regulations. Establish a local coastal development permit waiver process for other types of de minimis development including qualifying agricultural uses, smaller structures, or temporary uses.

2-12. Non-Conforming Uses. Update the non-conforming uses implementation regulations in the IP to address standards for non-conforming uses and development with respect to land use, environmental hazards, and biological resources. Uses and development that were lawful at the time they were established may continue under the policies of this Land Use Plan unless the use is discontinued for a period of up to five years for agricultural uses, and up to one year for all other uses.

2-13. Constitutional Use of Property. Nothing in this Land Use Plan is intended to nor shall be construed as authorizing the City of Half Moon Bay to grant or deny a permit in a manner which will take or damage private property for public use without the payment of just compensation.

2-14. CEQA Thresholds of Significance. Use thresholds of significance for CEQA review purposes for impacts that require special consideration in Half Moon Bay.

2. **Priority and Non-Priority Uses.** Per Section 30255 of the Coastal Act, which provides that coastal-dependent developments shall have priority over other developments on or near the shoreline, the Land Use element should include both a discussion of, and policies around, priority and non-priority uses. While figure C-LU-1 provides an overview of County priorities, there needs to be further discussion on the balance between Coastal Act priority uses, local priority uses (such as affordable housing), and non-priority uses, with associated policies. Sample language from the HMB LCP is included below:

2-3. Priority Land Uses. Define priority land uses and support development of such land uses throughout the City by the following categories:

- a. **Coastal Act Priority Uses:** Coastal-dependent uses, agricultural uses, visitor-serving commercial uses, and coastal access and recreational facilities. Coastal Act Priority Uses are considered top tier priority in this LCP; and furthermore, as consistent with Coastal Act Section 30222, coastal-dependent industry and agriculture take precedence over all other uses including visitor-serving commercial recreation facilities.

b. Local Priority Uses: Affordable dwelling units for extremely low, very low, and low-income households. Local Priority Uses are considered second tier priority behind Coastal Act Priority Uses in this LCP.

3. Land Use Category Specific Policies. The Land Use element outlines each of the separate land use categories but does not have any policies that correspond to these uses. Each described land use should have corresponding policies detailing what is allowable and not allowable in each of these land use categories, as the tables are not actionable policies. For example, following the set of tables on Land Extensive Agriculture and Diverse Agriculture, there should be a set of policies similar to the sample policy language below:

2-86. Consistency with Agricultural Use Policies. *Policies and definitions in Chapter 4. Agriculture are specifically intended to supplement policies in Chapter 2. Development for lands in agricultural use and/or containing prime and non-prime agricultural soils, while the policies in this section address lands with Rural Coastal and Horticulture Business land use designations. As defined in this LUP, agricultural land uses are a Coastal Act Priority Use and include the cultivation of food, fiber or flowers; the grazing, growing or pasturing of livestock; and horse breeding operations.*

2-87. Minimum Lot Size. *Determine minimum lot sizes for lands with Rural Coastal and Horticulture Business land use designations on a case-by-case basis to ensure maximum existing or potential agricultural productivity, recognizing that subdivision of lands in agricultural use is discouraged; while lot line adjustments and other boundary adjustments may be found beneficial to the underlying use for purposes such as estate planning for the sake of maintaining a family farm or establishing agricultural conversation easements.*

2-88. Rural Coastal Permitted Uses. *Permitted uses in the Rural Coastal land use designation include agriculture; agricultural compatible uses including recreational equestrian uses, public recreation, and habitat restoration; greenhouses; horse breeding; grazing; equestrian centers; farmworker housing as provided for by State law; ancillary uses necessary to support the primary use or operation; and supplemental uses to support the long-term viability of the primary use. Conditionally permitted uses include single-family residences at no more than one unit per 15 acres.*

2-89. Rural Coastal Permitted Supplemental Uses. *Allow for a wide range of supplemental uses to support long-term viability of agriculture, including:*

- a. Agri-tourism uses that enhance the link between the agriculture use and tourism, such as farm-to-table establishments and tasting rooms;*
- b. Small-scale lodging such as farm-stays and other overnight accommodation options;*
- c. Educational opportunities for adults and children such as tours, classes, and day camps;*
- d. Temporary events and seasonal uses, including those that support coastal recreation provided that such uses do not include significant permanent structures;*

e. Research and development facilities and clinical uses connected to the primary use, including boarding for researchers and students and modest facilities for conducting basic laboratory functions or on-site veterinary care; and

f. Boarding and care of horses including training and demonstration clinics.

4. Changes in Land-Use Categories. With regards to the new land use maps, please indicate whether there are any proposed changes in land use designations from the currently certified LUP. If so, these should be clearly identified, with a description on why the change in these categories would not negatively impact coastal resources.

5. Land Use Designations and Corresponding Zoning Districts. The figure on page LU-4 has an updated list of uses and zoning districts that are confusing in structure for the following reasons:

- a. Many of the designations seem to be missing key corresponding zoning districts. These include:
 - i.* The Open Space land use designation is missing Recreational zoning
 - ii.* The Commercial designation is missing Marine Industrial zoning
 - iii.* The Timber, Timber Preserve, Land Extensive and Diverse Agriculture, and Visitor Serving zoning districts are not listed as associated with any of the land use designations
- b. Planned Community zoning is now allowed in the Open Space land use designation, which may be of concern regarding impacts to coastal resources and requires further explanation and analysis.
- c. The land use map series contains several land use designations that are not included in the table on page LU-4, including Timber and Land Extensive Agriculture.
- d. This figure does not correspond with the overarching categories presented in Section 2 "Land Use Designations".

6. Principally Permitted Uses (PPUs). In terms of principally permitted uses (PPUs), it is important for the County to carefully consider which uses are considered PPUs. For purposes of appeal of County CDP decisions to the Commission, the LCP can only identify a single PPU per zoning district in order for County decisions to not be appealable (i.e., per Coastal Act Section 30603, a CDP decision for any development that does not constitute that single PPU is appealable to the Commission). The single PPU can be a broader use type (e.g., residential in an R-1 district, where multiple residential uses are included). If multiple PPU use types are identified for any particular zoning district, then there is no single PPU for purposes of appeal, and CDP decisions for all uses in that zoning category would be appealable to the Commission. If such uses are specified as PPUs for some type of internal PPU processing purpose, and explicitly not the single PPU for purposes of CDP appeal to the Commission, we are open to discussing how to make this distinction clear in the LCP.

7. Details needed for PPUs. Most of the land use designation tables should be more specific in terms of the principally permitted uses. For example, in the Commercial

Tourist land use area, the principally permitted uses are described as “visitor-serving commercial uses”. Following this, there should be a list of what specific visitor-serving commercial uses qualify as PPU. This structure should be followed for the other land use areas as well. In addition, the County should avoid use of “may” in reference to approved uses listed in PPU categories to reduce unnecessary ambiguity.

8. Missing Policy. The current draft of this chapter seems to be missing a key policy that was present in the last draft Commission staff reviewed. This policy is (numbered by reference numbers from prior draft):

- a. C-LU-5u, regarding retention of adequate water and sewer for affordable housing units; and

The County should clarify whether this omission was purposeful and if so, what that means for the current Land Use provisions regarding such affordable housing.

9. Relevant Coastal Act Sections. Please include, in full, the relevant Coastal Act policies and how they apply to this Land Use Element. These include, but are not limited to, Section 30222 “Private Lands; priority and development purposes”, Section 30240 “Environmentally sensitive habitat areas”, Section 30250 “Location; existing developed area”, Section 30251 “Scenic and visual qualities”, Section 30252 “Maintenance and enhancement of public access”, Section 30253 “Minimization of adverse impacts”, Section 30255 “Priority of coastal dependent developments”, and Section 30010 “Compensation for taking of private property; legislative declaration”.

The list above is intended as a complement to the in-line edits and comments provided for the Land Use Element but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff. Again, we thank you for your efforts to date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Land Use Element: Table of Contents

Land Use Element	3
1.1 Introduction	3
1.2 Priority of Land Uses	3
1.3 Coastal Land Use Categories	4
Appeal Jurisdiction	5
2 Land Use Designations	5
2.1 Agriculture	5
Land Extensive Agriculture	6
Diverse Agriculture	6
2.2 Recreation and Natural Resources	7
Recreation	7
Resources and Rural Development	8
Timber	9
Dedicated Open Space Areas	10
2.3 Commercial Land Use	10
Commercial Fishing	10
Commercial Tourist	11
Commercial Services	11
2.4 Public/Institutional Land Use	12
Public Facilities Areas	12
2.5 Residential Land Use	13
Rural Residential	13
Urban Residential Areas	14
3 Land Use Policy	15
3.1 Offshore Drilling and Support Facilities	15
On-Shore and Off-Shore Oil and Gas Facilities	15
Goals, Objectives, and Policies On-Shore and Off-Shore Oil and Gas Facilities	16

3.2	Affordable Housing	16
	Goals, Objectives, and Policies Affordable Housing	17
3.3	Visitor-Serving Commercial Facilities	20
	Existing Visitor-Serving Commercial Facilities.....	20
	Goals, Objectives, and Policies Visitor-Serving Commercial Facilities	22
3.4	Communities.....	24
	Goals, Objectives, and Policies Communities.....	24
4	Implementation Programs.....	27
4.1	Land Use Implementation Programs.....	27
4.2	Other Initiatives	28

Land Use Element

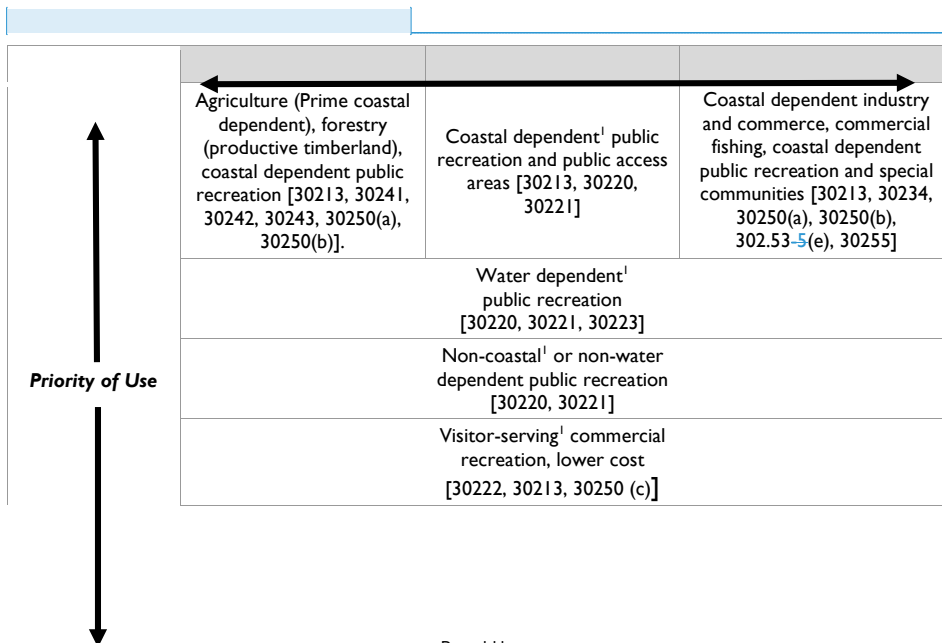
1.1

The Land Use Element, along with the other Elements of the Local Coastal Plan, together comprise the Land Use Plan as defined in Section 30108.5 of the California Coastal Act of 1976. The Land Use Plan provides policies that, together with the Land Use, Open Space, Hazards and Public Access Maps provide the land use designations indicating the type, location, and extent of land uses permitted in the Coastal Zone. For each appropriate land use category, it includes standards for residential density and building intensity.

The Land Use Element provides the framework for land uses that serves to protect the Coastal Zone's abundant natural resources and provide for enhanced public access and recreation that serves the greater community, while balancing the needs of local residents, farmers, and resource managers.

1.2

The Coastal Act established a framework for preserving coastal resources, protecting public access to the ocean, and guiding development to maximize protection of these resources. Consistent with the Coastal Act, the Local Coastal Plan establishes a prioritization of land uses, where lower priority development may not interfere with higher priority uses of land and resources. This prioritization is shown below in **Figure C-LU-1**:



Page LU-3

Commented [A1]: Please include general land use policies that apply to all land use types and the county in general. Sample policies from the HMB LCP include:

2-1. Land Use Plan Map. Apply Land Use Plan designations in accordance with the policies of this Land Use Plan.

2-2. Complete Policy Compliance. Ensure that all new development as defined by the Coastal Act complies with the policies of the Land Use Plan. New development means any project for which a coastal development permit is required. Allow flexibility only when the Land Use Plan provides for an exception.

2-4 Sustainable Land Use Pattern. Concentrate new development within the defined Urban Boundary by prioritizing development in the Town Center, allowing for infill development within established neighborhoods, and protecting the rural, open space, agricultural and habitat values of undeveloped areas.

2-6. Housing Diversity and Affordability. Encourage a diversity of housing types, including housing at a range of affordability levels, densities, sizes, and ownership types with equitable access to environmental benefits. Meet the needs of Half Moon Bay's diverse population, including young families, multi-generational families, students, young professionals, and seniors.

2-8. Community Needs. Support the development of land uses desired by the community and which contribute to quality of life. Uses include affordable and diverse housing types such as farmworker housing and smaller homes; light industrial uses including live-work and artisan uses; adaptive reuse of heritage buildings; agriculture and agriculture-compatible uses along with supportive accessory uses; commercial including neighborhood and local-serving uses; quasi-public uses including childcare, healthcare, animal care, and assisted living; and public uses including parks and other community facilities.

2-11. Development Permit Requirements. Require a coastal development permit for any project that meets the...

Commented [A2]: Please include all relevant Coastal Act land use policies in full.

Commented [A3]: Consider folding this diagram into a policy regarding priority and non-priority uses. For reference a sample policy from the HMB LCP includes:

2-3. Priority Land Uses. Define priority land uses and support development of such land uses throughout the City by the following categories:

a. Coastal Act Priority Uses: Coastal-dependent uses, agricultural uses, visitor-serving commercial uses, and coastal access and recreational facilities. Coastal Act Priority Uses are considered top tier priority in this LCP; and furthermore, as consistent with Coastal Act Section 30222, coastal-dependent industry and agriculture take precedence over all other uses including visitor-serving commercial recreation facilities.

Low	
	Visitor-serving ¹ commercial recreation, higher cost [30222, 30250 (c)]
	Residential, general industrial, or commercial development ² [30222, 30250, 30255]
Notes: ¹ Recreational uses of the coast that do not require extensive alteration of the natural environment have priority in intertidal and waterfront areas over recreational uses that would result in substantial alteration of the natural environment [30233, 30235, 30255] ² Concentration of development policies [30250(a)] limit development in rural areas, except public recreation and visitor-serving uses.	

Land Extensive Agriculture (LEA)	Land Extensive Agriculture (LEA)
Diverse Agriculture (DA)	Diverse Agriculture (DA)
Recreation (R)	Recreation (R)
Resources and Rural Development (RRD)	Resources and Rural Development (RRD)
Timber (T)	Timber Preserve (TP) Resources and Rural Development (RRD)
Dedicated Open Space (OS)	Planned Community (PC) Rural Residential (RR)
Commercial Fishing (CF)	Commercial Fishing (CF)
Commercial Tourist (CT)	Planned Community (PC) Commercial Tourist (CT) (formerly Visitor-Serving Commercial)
Commercial Services (CS)	Commercial Services (CS) (formerly Rural Services) Community Commercial (C2)
Public Facilities (PF)	Public Facilities (PF)
Marine Industrial (MI)	Public Facilities (PF) Commercial Fishing (CF)
Rural Residential (RR)	Rural Residential (RR) Agriculture and Residential (AR) Planned Community (PC)
Urban Residential (UR)	Low Density Residential (R1) Medium Density Residential (R2) Planned Community (PC)

Commented [A4]: Table corrected to show all land uses and applicable zoning

1.3 COASTAL LAND USE CATEGORIES

There are two categories of potential uses in the Coastal Zone. Principally Permitted Uses generally have more streamlined approval processes, while Other Permitted Uses may require additional discretionary approvals. The two categories are defined as:

<i>Principally Permitted Uses</i>	<i>Other Permitted Uses</i>
<p>Principal Uses as described in the Coastal Zoning Code and consistent with the primary purpose of the land use category. Coastal development permits issued for Principally Permitted Uses remain subject to local appeal, but are not appealable to the California Coastal Commission, pursuant to Section 30603(a)(4) of the Coastal Act.</p> <p>Uses shall not be considered principally permitted if located within an environmentally sensitive habitat area or major view shed designated in the Open Space and Resource Conservation Element.</p> <p>All principally permitted uses are subject to site development standards.</p> <p>Outside of commercial land use designations all commercial uses that require a coastal development permit are appealable to the Coastal Commission.</p>	<p>Land uses permitted or conditionally permitted in the Coastal Zoning Code not described as Principally Permitted Uses are secondary and subordinate to the principal permitted uses and must be compatible with principally permitted land use. It should be noted that the term "permitted uses" as used in the descriptions of the land use categories identify permissible uses consistent with the purpose of the land use category, subject to zoning and permitting requirements of the County. All development within the Coastal Zone requires a discretionary Coastal Development Permit, unless exempt or otherwise categorically excluded by order of the Coastal Commission. Any development that is not designated as the Principally Permitted Use in a particular zone may be appealed to the Coastal Commission.</p>

Appeal Jurisdiction

Approval of a coastal development permit for any project within the appeal jurisdiction area may be appealed to the Coastal Commission. This area includes, but is not limited to: areas west of Highway 1 or first public road that is not Highway 1, areas within 100 feet of a wetland, estuary or stream, public trust lands, tidelands and submerged lands, areas inland 300ft from bluff or sandy beach and development located in a sensitive coastal resource area, including areas identified as environmentally sensitive habitat in the Open Space and Resource Conservation Element Figures C-OSRC-2a through C-OSRC-2k.

2 LAND USE DESIGNATIONS

Descriptions of land use designations follow, along with a brief discussion of uses and the permitted residential density allowed by designation. The Coastal Zoning Code further describes the uses that are permitted within each category and provides additional standards for such development. Additional uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Plan may also be allowed subject to permitting requirements of the Coastal Zoning Code.

For all land use designations, all uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses, intended to be the primary use of the land.

2.1 AGRICULTURE

Agricultural uses are among the highest priority uses within the Coastal Zone. The purpose of this land use category is to preserve and protect appropriate coastal agriculture. The land use plan includes two agricultural land use designations, Land Extensive Agriculture and Diverse Agriculture. The two designations vary in the type of agricultural uses and support uses allowed, and by allowable residential density.

Agriculture is the principally permitted use on lands suitable for agriculture or which contain soils with agricultural capability (including prime agricultural land), or ancillary lands which may not be suitable for agriculture, but are strategically located to protect agricultural lands from the encroachment of incompatible land uses. Certain types of residential units may also be allowed, up to four units per parcel **when supporting agricultural uses onsite**. Agricultural uses include grazing of livestock.” All dwelling units shall be clustered in relation to physical land features and property management conditions. All dwelling units shall be subordinate to and consistent with agricultural production and shall comply with Agricultural Resources Element policies.

Commented [A5]: Please differentiate here between farmworker housing and other residential housing, please state which types of housing would be recognized as primarily permitted use, and what types of agricultural housing would not be defined as primarily permitted use.

Commented [A6]: Please include this below as its own policy.

Land Extensive Agriculture

Purpose	To enhance and protect land best suited for non-intensive agriculture of relatively low production on relatively large parcels, by establishing densities and parcel sizes that are conducive to continued agricultural production
Corresponding Zoning District(s)	Land Extensive Agriculture (LEA)
Principally Permitted Use	Production of food or fiber, including, but not limited to, grazing, farm animal husbandry, outdoor row crop production with essential support uses including incidental preparation, and limited farm-related residential development)
Minimum Parcel Size	Land divisions shall be permitted only for the purpose of increasing or enhancing agricultural production and must result in a minimum parcel size of 640 acres.
Allowable residential density	One single-family residence per 160 acres or one per parcel, if a parcel is less than 160 acres, when supporting agricultural uses onsite.
Other Residential Uses	Other agricultural-related dwelling units that do not count toward density, such as agricultural employee units and farm family dwellings, are allowed. In no case shall the total number of permanent residential units exceed four units per parcel
Designation Criteria	A Land Use Map Amendment to apply the Land Extensive Agriculture land use designation requires a Local Coastal Plan Amendment, subject to certification by the California Coastal Commission, and must meet the standards in Chapter 3 of the California Coastal Act, be consistent with other policies of the Local Coastal Plan, and meet one or more of the following criteria: <ol style="list-style-type: none"> 1. Soil and water are adequate for livestock grazing or other crop production. 2. Most parcel sizes in the area are greater than 60 acres. 3. Existing or historic use for livestock grazing, dairy ranching, hay or similar forage crop.

Diverse Agriculture

Purpose	To enhance and protect land best suited for diverse types of agriculture on relatively small parcels in which farming may be part-time and may not be the principal occupation of the farmer, protect a variety of agricultural uses of scale and intensity to be compatible with coastal resources, and limit the conversion of agricultural parcels to non-agricultural use
Corresponding Zoning District(s)	Diverse Agriculture (DA)
Principally Permitted Use	Production of food or fiber, including, but not limited to, grazing, farm animal husbandry, outdoor row crop production with essential support uses including incidental preparation, and limited farm-related residential development)
Minimum Parcel Size	160 acres

Allowable Residential Density	One single-family residence per 40 acres or one per parcel, if a parcel is less than 160 acres when supporting agricultural uses onsite.
Other Residential Uses	Other agricultural-related dwelling units that do not count toward density, such as agricultural employee units and farm family dwellings, are allowed. In no case shall the total number of permanent residential units exceed four units per parcel.
Designation Criteria	<p>A Land Use Map Amendment to apply the Diverse Agriculture land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Diverse Agriculture land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:</p> <ol style="list-style-type: none"> 1. Soil suitable for food crop production and adequate water for irrigation. 2. Most parcel sizes in the area are greater than 10 acres. 3. Existing or historic use as orchard, vineyard, other food crop production, hay or other forage crop production, livestock grazing, dairy ranching, or other type of farming. 4. Qualifies for Prime or Non-Prime Agricultural Land Conservation Act Contract. 5. Areas which may not meet the above criteria but which are surrounded by lands in farming.

2.2 RECREATION AND

2.3 NATURAL RESOURCES

Recreation

Purpose	To accommodate private or public recreational facilities
Corresponding Zoning District(s)	Planned Community (PC) Resources and Rural Development (RRD)
Principally Permitted Use	Planned Community zoning: Recreation as intended for use in the community's Precise Development Plan Resources and Rural Development zoning: Resource- and coastal-dependent recreation activities
Minimum Parcel Size	640 acres (RRD); as described in the Precise Development Plan (PC) Land divisions shall be permitted only for the purpose of increasing or enhancing natural resource
Permitted Residential Densities	One single-family residence per 160 acres or 0 acres
Other Residential Uses	Other resource-related dwelling units that do agricultural employee units and farm family dwellings, may be allowed. The total number of residential units shall not exceed four units per parcel.

Planned Community zoning is applied with the approval of a Precise Development Plan, which prescribes specific development and land uses. A Precise Development Plan and Planned Community zoning approval requires a Local Coastal Program amendment.

The principally permitted use for lands zoned Resources and Rural Development is land management for the purposes of resource conservation including passive recreation. Lands zoned Resources and Rural Development with an underlying land use of Recreation are intended primarily for of resource and coastal dependent recreation activities. Limited agricultural uses and related single family dwelling unit are allowed as a non-principally permitted use.

Designation Criteria	<p>A Land Use Map Amendment to apply the Recreation land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Recreation land use designation must demonstrate adequate road access for the allowed uses and that allowed uses will not adversely affect agriculture or resource production uses and meet one or more of the following criteria:</p> <ol style="list-style-type: none"> 1. Has severe development constraints such as geologic, flood, or fire hazards, marginal or unproven water availability, or limited septic capability, or is vulnerable to environmental impact, but suitable for low intensities of recreational use, passive recreation, or coastal dependent recreation. 2. Land is recognized as a legally established recreational use. 3. Land is a designated common area without development which is committed to recreation in a planned community.
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Resources and Rural Development

Purpose	<p>To protect lands needed for use and production of natural resources (e.g., water, timber, geothermal steam, or aggregate production), water resources, scenic resources, and biotic resources, and to protect lands constrained by geologic, flood, or fire or other hazards, from intensive development.</p>	<p>Examples of uses allowed in the Resources and Rural Development land use designation may include land management for the purposes of resource conservation including passive recreation) as described in the Coastal Zoning Code for Resources and Rural Development. Lands designated as Resources and Rural Development are intended primarily for a variety of land management and coastal dependent recreation activities, but may also be used for limited agricultural uses and very low density residential development not in conflict with the primary resource use of the site as a non-principally permitted use.</p>
Corresponding Zoning District(s)	<p>Resources and Rural Development (RRD)</p>	
Principally Permitted Use	<p>Resource conservation and coastal-dependent recreation activities</p>	
Minimum Parcel Size	<p>640 acres</p>	
Allowable Residential Density	<p>One single-family residence per 160 acres or one per parcel if a parcel is less than 160 acres</p>	
Other Residential Uses	<p>Other resource-related dwelling units that do not count toward density, such as agricultural employee units and farm family dwellings, may be allowed. The total number of residential units shall not exceed four units per parcel.</p>	
Designation Criteria	<p>A Land Use Map Amendment to apply the Resources and Rural Development land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Resources and Rural Development land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:</p> <ol style="list-style-type: none"> 1. Land has severe constraints such as geologic, flood, or fire hazards; marginal or unproven water availability; or limited septic capability. 2. Land contains natural resources such as water, timber, geothermal steam, aggregate, or soil. 3. Land contains biotic or scenic resources. 4. Land is vulnerable to environmental impact. 	

Timber

Purpose	To protect timberland needed for commercial timber production under the California Timberland Productivity Act	<p>Timber lands may also be used for limited accessory uses and very low-density residential development not in conflict with the primary resource use of the site.</p> <p>Lands zoned Resource and Rural Development (RRD) with an underlying land use designation of Timber may also be used for agricultural operations and very low-density residential development not in conflict with the resource use of the site as a non-principally permitted use.</p>
Corresponding Zoning District(s) Principally Permitted Use	<p>Timber Preserve (TP) Resources and Rural Development (RRD)</p> <p>The principally permitted use on lands designated and zoned for Timber is land management for the continued operation and protection of Timber Preserves.</p> <p>Additional resource, recreation, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code.</p> <p>The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.</p>	
Minimum Parcel Size	<p>640 acres Land divisions shall be permitted only for the purpose of increasing or enhancing timber production.</p>	
Allowable residential density	<p>One single-family residence per 160 acres or one per parcel, if a parcel is less than 160 acres</p>	
Other Residential Uses	<p>Other resource-related dwelling units that do not count toward density, such as agricultural employee units and farm family dwellings, may be allowed. The total number of residential units shall not exceed four units per parcel.</p>	
Designation Criteria	<p>A Land Use Map Amendment to apply the Timber land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Timber land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:</p> <ol style="list-style-type: none"> 1. Land is predominantly in Timber Site Class I, II, III, IV, or V. 2. Land has existing or historic use for timber production. 3. Timber production is considered the highest and best use of the land. 4. Timberland needed for commercial timber production under the California Timberland Productivity Act. 5. Land for which harvesting of timber is not prohibited by restrictions placed on property. 6. A parcel or contiguous ownership of at least 40 acres in Timber Site Class I or II if it is not contiguous to and under the same ownership as the surrounding land in timber production. 7. A parcel or contiguous ownership of at least 80 acres in Timber Site Class III, IV, or V if it is not contiguous to and under the same ownership as the surrounding land in timber production. 8. Areas which may not meet the above criteria but which are surrounded by lands in timber production. 	

Dedicated Open Space

Purpose	To designate common areas which are committed to perpetual open space in planned developments	Lands designated as Dedicated Open Space are intended to remain as common areas without structures in planned communities and planned developments. Uses allowed on Dedicated Open Space areas are limited to those prescribed in the planned development or applicable planned community approval, include grazing, outdoor crop production, and passive recreation.
Corresponding Zoning District(s)	Planned Community (PC) zone for The Sea Ranch, planned development Rural Residential (RR) zone for the Bodega Harbor, and future planned developments	
Principally Permitted Use	Common areas without structures in planned communities and planned developments to protect resources and allow passive recreational activities. This use allows grazing and outdoor crop production to enhance and manage protected resources.	
Designation Criteria	<p>A Land Use Map Amendment to apply the Dedicated Open Space land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Dedicated Open Space land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Land is a designated common area without development which is committed to open space in a planned community. 2. Lands without existing residential, commercial, or industrial development. 	

2.4 COMMERCIAL LAND USE

Commercial Fishing

Purpose	To accommodate a variety of commercial, light to medium industrial, and service uses which support commercial fishing and related support facilities.
Corresponding Zoning District(s)	Commercial Fishing (CF)
Principally Permitted Use	Fish buying and selling facilities; warehouses for storage of fishing gear, boats, and trailers; and related accessory structures and uses including fishing supply stores and bait and tackle shops.
Minimum Parcel Size	<ul style="list-style-type: none"> • 1.5 acres if served by individual wells and septic systems • 1 acre if served by public water and septic systems • 10,000 square feet if connected to municipal wastewater treatment
Designation Criteria	<p>A Land Use Map Amendment to apply the Commercial Fishing land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Fishing land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Lands are not converted from an Agricultural land use category which shall have priority over other commercial or industrial land uses. 2. Lands shall be located within an Urban Service Area. 3. Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector.

	<ol style="list-style-type: none"> 4. Lands shall be in close proximity and no more than one-half mile to a harbor, marina, bay, or the ocean. 5. The intended commercial or industrial uses shall be directly related to: a) support of fishermen and the fishing industry, b) support of boat builders/repairers and the boat building/repair industry; or c) support of other industries which depend on the marine environment and resources. 6. Lands shall not be located in a Scenic Landscape Unit or Scenic View Corridor.
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Commercial Tourist

Purpose	To accommodate visitor-serving commercial uses, including lodging, restaurants, retail shops principally serving tourists, and recreation facilities
Corresponding Zoning District(s)	Commercial Tourist (CT) Planned Community (PC) where allowed by Precise Development Plan
Principally Permitted Use	Visitor-serving commercial uses including hotels, motels, inns, resorts, bed and breakfast inns; local retail shops, bars, restaurants, guest ranches; art galleries, and visitor information centers.
Minimum Parcel Size	<ul style="list-style-type: none"> • 1.5 acres if served by individual wells and septic systems • 1 acre if served by public water and septic systems • 10,000 square feet if connected to municipal wastewater treatment
Designation Criteria	<p>A Land Use Map Amendment to apply the Commercial Tourist land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Tourist land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Lands shall not be converted from an Agricultural or Commercial Fishing Land Use categories which have priority over visitor-serving commercial uses. 2. Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector. 3. Visitor-serving commercial uses would be compatible with nearby agricultural operations and uses in the surrounding area. 4. The site is within or adjacent to a designated Urban Service Area. 5. Lands shall not be located in a Scenic Landscape Unit or disrupt a Major View.

Commented [A7]: This should be included in the beginning of this chapter as a general LU policy.

Commercial Services

Purpose	To accommodate the day-to-day retail business, service, recreational, and professional service needs of local residents
Corresponding Zoning District(s)	Commercial Services (CS) Community Commercial (C2)
Principally Permitted Use	Limited local-serving commercial including local retail shops, recreational equipment, and professional services to meet the needs of the local community.
Minimum Parcel Size	<ul style="list-style-type: none"> • 1.5 acres if served by individual wells and septic systems • 1 acre if served by public water and septic systems • 10,000 square feet if connected to municipal wastewater treatment
Designation Criteria	A Land Use Map Amendment to apply the Commercial Services land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California

Commented [A8]: Community Commercial is not mapped on the Land-Use map series.

	<p>Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Services land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Lands are not converted from an Agricultural, Commercial Fishing, or Commercial Tourist land use category, which shall have priority over other commercial land uses. 2. The designation does not reduce opportunities for affordable or workforce housing. 3. Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector. 4. The amount of land designated for local-serving commercial uses shall be consistent with the population projected for the local market area. 5. In rural areas, lands may be limited to a single parcel and be restricted to that level which can be served by an individual well and septic system. 6. Lands shall not be located within a Scenic Landscape Unit or Major View shed.
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2.5 PUBLIC/INSTITUTIONAL LAND USE

Public Facilities Areas

Purpose	To accommodate institutional or public uses which serve the community or public need and -are owned or operated by government agencies, non-profit entities, or public utilities	Lands designated Public Facilities are owned and operated by a city, county, special district, federal agency, or state for the primary purpose of providing an essential public service, including public safety, administrative services and the production, generation, transmission, collection, and storage of water, waste, or energy. Public uses are also allowed in other land use categories; the Public Facilities and Services Element establishes policies for the location of public uses in other land use categories.
Corresponding Zoning District(s)	Public Facilities (PF)	
Principally Permitted Use	Utility and public service facilities	
Minimum Parcel Size	6,000 square feet	
Designation Criteria	<p>A Land Use Map Amendment to apply the Public Facilities land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Public Facility land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Ownership or long-term lease by a government agency, other non-profit entity, or public utility. 2. Adequate road access. 3. Lands are not suitable for and will not adversely affect agriculture or resource production activities. 	

2.6 RESIDENTIAL LAND USE

The Land Use Plan has two residential land use categories: Rural Residential and Urban Residential. While other land use designations may permit limited or incidental residential use, only these two categories will be considered residential land use designations.

Additional standards applicable to development on residential lands may be included in the Coastal Zoning Ordinance and local area design guidelines.

Rural Residential

Purpose	To provide for very low-density residential development on lands which have few if any public services but which have access to county maintained roads	On lands designated Rural Residential and zoned RR, limited crop and farm animal husbandry is allowed. On lands zoned AR, unlimited crop and farm animal husbandry is allowed on parcels of two acres or more. On lands zoned PC, allowable land uses are based on an approved precise development plan.
Corresponding Zoning District(s)	Rural Residential (RR) Agricultural and Residential (AR) Planned Community (PC)	
Principally Permitted Use	Single-family residential uses	
Minimum Parcel Size	1.5 acres if served by an individual well and septic system 1 acre if served by a public water system	
Allowable Residential Density	1 to 20 acres per dwelling unit Maximum residential density is applied based on similar density of existing lots in the surrounding area, suitable soils for septic disposal, available water, environmental suitability, access to arterial or collector roads, proximity of commercial services and public services and facilities, and no significant impacts on agriculture and resource production.	
Other Residential Uses	Associated residential accessory structures	
Designation Criteria	<p>A Land Use Map Amendment to apply the Rural Residential land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Rural Residential land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Lands are not converted from an Agricultural, Commercial Fishing or Commercial Tourist land use category, which shall have priority over residential land uses. 2. The area does not have soils suitable for agricultural production. 3. The area does not include substantial agricultural or resource uses. 4. Lands have access to a County maintained road. 5. Lands have enough groundwater for individual wells. 6. Soil and groundwater conditions have capacity for individual septic systems. 	

Commented [A9]: Please include this in the glossary or specify the meaning here.

Urban Residential Areas

Purpose	To accommodate a variety of types of low- and medium-density housing types in areas with public services	<p>Residential densities are based on availability of public services and infrastructure, land use compatibility, environmental suitability, projected population and development, and neighborhood character.</p> <p>Environmental suitability includes but is not limited to protection of habitat area, riparian corridors, major views, minimizing the risk of hazards and vulnerability to sea level rise, or coastal bluff erosion.</p>
Corresponding Zoning District(s)	Low Density Residential (R1) Medium Density Residential (R2) Planned Community (PC)	
Principally Permitted Use	Single-family and multifamily residential uses	
Minimum Lot Size	6,000 square feet	
Allowable Residential Density	<p>1 to 6 units per acre in low-density residential zones and 6 to 12 units per acre in medium-density residential zones</p> <p>Residential density may be increased if the project qualifies under the state density bonus program outlined in California Government Code Section 65915; or the County supplemental density bonus program or housing opportunity area program; and in the Coastal Zoning Ordinance under affordable housing program requirements and incentives. Approval of any increase in residential density is subject to specific findings regarding the adequacy of public services, consistency with the Local Coastal Program, and mitigation of impacts to coastal resources. Application of higher residential density under the density bonus or housing opportunity programs may require a Local Coastal Plan Amendment.</p>	
Other Residential Uses	Low Density Residential (R1) allows for the development of single family residences and associated accessory structures and uses on small lots developed in accordance to density. Medium Density Residential (R2) allows for the development of multifamily residential development in accordance with permitted density, including those developed as transitional and density bonus projects.	
Designation Criteria	<p>A Land Use Map Amendment to apply the Urban Residential land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Urban Residential land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:</p> <ol style="list-style-type: none"> 1. Lands are not converted from an Agricultural, Commercial Fishing or Commercial Tourist land use category, which shall have priority over residential land uses. 2. Lands are within a designated Urban Service Area. 3. Adequate water, sewer, public safety, park, school services, and other necessary infrastructure are available or planned to be available. 4. Lands have convenient access to designated arterial or collector roads. 5. Lands are not subject to unacceptable levels of risk such as flooding, geologic hazards, excessive noise, or other hazards. 6. Lands have convenient access to commercial uses and community services. 	

Commented [A10]: Please provide an explanation as to how would this be processed without a certified density bonus ordinance.

3 LAND USE POLICY

3.1 OFFSHORE DRILLING AND SUPPORT FACILITIES

The Sonoma County Local Coastal Plan discourages general industrial and commercial energy development on the Sonoma County coast. Long-range protection of coastal agriculture, forestry, and commercial and recreational fishing; and enhancement of tourism and recreation are the priorities of the Coastal Program. These priorities are considered to be incompatible with energy development, in particular off-shore drilling.

On-Shore and Off-Shore Oil and Gas Facilities

Concerns in the 1980s about development of the Outer Continental Shelf led to the 1986 approval of Ordinance 3592R, known as the On-Shore Oil and Gas Facilities ordinance of Sonoma County. The ordinance is the result of a countywide ballot initiative that requires voter approval of any proposed Local Coastal Plan Amendment to allow onshore facilities that would support oil and gas development of the outer continental shelf.

The County then initiated a more detailed study (entitled "Offshore Oil Development: Onshore Support Facilities Feasibility Study") of the potential impacts of onshore support facilities on the Sonoma County coast. One of the primary findings of the study is that no suitable sites exist on the Sonoma County coast for industrial on-shore oil support facilities, due to a number of physical, environmental, and policy constraints.

The report noted that Bodega Bay could be considered as a site for a very limited and restricted crew or supply base on land designated Commercial Fishing. However, sea level rise may further reduce the feasibility of major facilities along the shoreline. A complete environmental analysis, including the potential effects of sea-level rise, and a voter-approved Local Coastal Plan Amendment, would be required.

In 1981, the U.S. Department of the Interior proposed Outer Continental Shelf (OCS) oil lease sales off the central and northern California Coast, including the Bodega Basin. Due to its existing harbor facilities, the Bodega Bay area was considered a possible onshore support base for the future offshore oil production platform. The availability of land, housing, harbor facilities, and public and commercial services influence the location for a potential future onshore support base.

The size of an onshore support base varies with the estimate of the amount of oil found during exploration. The lease sale proposed in 1981 would have required a temporary support base of five to ten acres for platform construction during the exploration phase. During the development phase a permanent facility would have been constructed at the same location, and additional land may have been necessary based on the amount of oil found during exploration. Ultimately a support base of 10 to 20 acres with wharf and loading facilities, a heliport, and a channel depth of 15-20 feet may have been necessary. Ultimately the Bodega Basin was removed from the list of areas proposed for lease sale.

Goals, Objectives, and Policies | On-Shore and Off-Shore Oil and Gas Facilities

GOAL C-LU-1: Protect the Sonoma County coast from Outer Continental Shelf oil and gas exploration and development.

Objective C-LU-1.1: Discourage offshore oil and gas exploration and development off the Sonoma County coast.

Objective C-LU-1.2: Prohibit construction of onshore support facilities for offshore oil and gas development to protect the sensitive coastal habitats along the National Marine Sanctuaries.

Policy C-LU-1a: A Local Coastal Plan Amendment shall be required for any proposed onshore facility to support offshore oil and gas exploration or development. Any such amendment shall not be effective until a majority of the voters in Sonoma County, in a general or special election, approve the proposed amendment, unless such amendment is approved by the California Coastal Commission pursuant to Section 30515 of the California Coastal Act. (EXISTING LCP REVISED)

Policy C-LU-1b: Prohibit onshore oil and gas support facilities within the Commercial Fishing land use [area](#) category. (EXISTING LCP REVISED)

3.2 AFFORDABLE HOUSING

The major goal of this Affordable Housing section is to protect and promote low- and moderate-cost housing in the Coastal Zone to support California Coastal Act policies regarding housing, access, and Coastal Zone priority uses. Visitor-serving commercial development, agricultural production, and coastal-dependent uses, to varying degrees, all depend on the availability of seasonal and year-round housing opportunities for persons operating or employed in these industries.

However, there are unique considerations for affordable and workforce housing development in the Coastal Zone, including high property values and the remote nature of the Coastal Zone. Transit service to the Coastal Zone is limited. The nearest incorporated city, Sebastopol, is more than 10 miles from the edge of the coastal zone and more than 15 miles to Bodega Bay, the most populous area of the Sonoma Coast.

All deed-restricted affordable housing units in the Coastal Zone are in The Sea Ranch and in Bodega Bay. There are 45 affordable rental units that were required as part of a 300-unit expansion of The Sea Ranch development. Harbor View Subdivision in Bodega Bay was also required to provide 14 affordable rental units on one parcel out of the 70-parcel subdivision.

Commented [A11]: Please explain the reasoning behind including this policy, as it seems Section 30515 of the Coastal Act already covers this. The full text of this coastal act policy should be included here.

Commented [A12]: In this introduction, please lay out the reasoning as to why affordable housing can be supported by resource dependent policies.

Commented [A13]: Here please include which Coastal Act policies the county is referencing. Keep in mind that affordable housing is not a coastal priority goal. Choose policies that support affordable housing policies, such as public access and agriculture.

For example, visitor serving uses (a coastal priority goal) are tied to associated policies that can support affordable housing. Consider classifying affordable housing as a Local priority use, with support from the Coastal Act such as described in the HMB LCP:

Local Priority Uses: Affordable housing. Affordable housing, including but not limited to units created through the Workforce Housing Overlay designation, is specifically identified as a Local Priority Use. Affordable housing as a second tier priority is envisioned to support the local workforce, with the intent of facilitating a range of housing types for those who live and work on the coast, fostering the economic development of the city, and reducing commuter traffic congestion. Most significantly, affordable housing as a Local Priority Use will support Coastal Act Priority Uses by providing housing priced and located so as to be especially suited for employees in the agriculture and coastal recreation sectors. With diverse and affordable housing as a pillar of this Land Use Plan, the City will be able to harmonize the goals of the Coastal Act with those of State Housing law and the City's Housing Element.

Goals, Objectives, and Policies | Affordable Housing

GOAL C-LU-5: Preserve and enhance affordable housing opportunities on the Sonoma County coast.

Objective C-LU-5-a: Protect existing affordable housing units and encourage development of additional affordable housing in urban areas.

Objective C-LU-5-b: Promote the development of affordable housing to meet a range of for-sale and rental housing needs including agricultural employee housing, accessory dwellings, senior housing and accessible units.

Policy C-LU-5a: Continue all existing County and Community Development Commission sponsored funding programs, including but not limited to Community Development Block Grant (CDBG), HOME, Low/Moderate Income Housing Asset Funds (LMIHAF), and County Fund for Housing (CFH) funding programs. Continue to require that at least 30 percent of the units assisted with County funds be affordable to extremely-low income households. Evaluate these existing programs in view of changing housing needs and policies, and seek opportunities for program expansion and more efficient use of limited resources. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1A)

Commented [A14]: Please include how this would be defined, such as including a footnote “As defined by HCD”

Policy C-LU-5b: Continue the County’s existing density bonus programs, including the state density bonus program and the County’s programs. Continue to evaluate these programs in view of changing housing needs and policies, and expand or modify as needed to increase opportunities for housing. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1B)

Commented [A15]: Please cite the ordinance referenced here.

Policy C-LU-5c: Ensure that design review, development standards, and conditions of approval for affordable housing projects do not result in a reduction of allowable project density or in the number of affordable units, unless the project as proposed would result in adverse impacts, and there is no other feasible method to mitigate the adverse impacts. State density bonus and accessory dwelling unit laws do not supersede the resource protections required by the Coastal Act (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1C)

Policy C-LU-5d: Encourage retention and further construction of small rental units such as Accessory and Junior Dwelling Units and single room occupancy units, as well as large rental units with more than 3 bedrooms. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1F)

Policy C-LU-5e: Continue to administer the County’s Mobile Home Rent Stabilization Ordinance. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1G)

Commented [A16]: If this ordinance will be administered through the LCP, it should exist in the body of the LCP, such as in an appendix.

Policy C-LU-5f: Continue to apply state law to Mobile Home Park Conversions to Resident Ownership, including implementation of SB 510 (Jackson 2013), in order to ensure that residents are afforded full consideration and all protections under the law. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1H)

Commented [A17]: If this state law will be administered through the LCP, it should exist in the body of the LCP, such as in an appendix.

Policy C-LU-5g: Prohibit the use of Accessory Dwelling Units for short term rentals of 30 or fewer days. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1L)

Policy C-LU-5h: Provide for two types of Housing Opportunity Areas in addition to, and not in lieu of, provisions of state and federal law as follows, and consistent with all other policies of the LCP:

- (1) Type "A" Rental Housing Opportunity Areas are established on sites which have a Local Coastal Plan medium density residential designation and are zoned R2 (Medium Density Residential). The residential density for a Type "A" project may be increased to 100 percent above the base land use residential density. Development standards used for Type "A" housing projects allow increased height, reduced parking requirements, and less stringent setbacks so long as privacy is maintained.
- (2) The Type "C" Ownership Housing Opportunity Program allows a density of 11 units per acre for ownership housing projects as long as affordability levels are met - 20% affordable to Low Income households and 80% affordable to Moderate Income households. Type "C" Housing Opportunity Areas are established ~~in~~ on sites which have a Local Coastal Plan low density residential designation (Urban Residential 1-6 dwelling units/acre). The residential density for a Type "C" project may be increased to almost 100 percent above the mapped designation to a maximum density ~~is~~ of 11 dwelling units/acre.
- (3) Rental Housing Opportunity Type "A" and Ownership Housing Opportunity Type "C" projects shall comply with all applicable provisions, including development standards and long-term affordability requirements, of Chapter 26C (Coastal Zoning Ordinance) of the Sonoma County Code.
- (4) Housing Opportunity Type "A" and Type "C" programs shall apply to housing development consisting of five or more dwelling units. (EXISTING LCP REVISED PER HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT)

Policy C-LU-5i: Encourage a mix of low and moderate income housing units, and rental and sale units. Encourage diverse unit design including visitability and universal design. (EXISTING LCP REVISED PER HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT)

Policy C-LU-5j: Continue to encourage affordable "infill" projects on underutilized sites within Urban Service Areas by allowing flexibility in development standards pursuant to state density bonus law [California Government Code Section 65915, including subsection (m)]. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-3J)

Policy C-LU-5k: Require long-term Affordable Housing Agreement for affordable housing units. (EXISTING LCP REVISED)

Commented [A18]: Please include these details in the "Urban Residential" category overview above.

Commented [A19]: Please define this here.

Commented [A20]: What is meant by visitability? Understood that this is a "term de' art" but should be included in the glossary or use a more well known term such as ADA accessible.

Policy C-LU-5l: For parcels located within an area designated Urban Residential 1-6 dwelling units/acre which are large enough in area to permit more than one dwelling but cannot meet subdivision criteria due to shape, access, or other similar constraint, permit clustering of dwelling units consisting of detached single-family dwelling units subject to the density limitations of the Local Coastal Plan Land Use Maps and issuance of a Use Permit. (EXISTING LCP REVISED PER HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT)

Commented [A21]: Please explain how it is possible to have multiple single family dwelling units in a lot if you can't split it? It may be helpful to walk us through an example here.

Policy C-LU-5m: Concentrate housing production efforts in areas where public sewer and water service are available. (EXISTING LCP)

Commented [A22]: Please include this policy:

C-LU-5u: Encourage service providers to retain adequate sewer and water service capacities for housing units affordable to Moderate and Low Income households. (New: HCD certified 2014 Housing Element Policy HE-2h)

Policy C-LU-5n: Continue to permit transitional and permanent supportive housing in all residential land use categories. The construction of new dwelling units for such purposes shall conform to the Local Coastal Plan densities and to all other applicable provisions of the Coastal Zoning Ordinance. No standards shall be applied to transitional or supportive housing that do not also apply to other dwelling units within the same zone. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-5G)

Policy C-LU-5o: Prohibit the demolition of housing for persons of low and moderate income, unless such demolition would be coupled with subsequent reconstruction of replacement housing of comparable rental value. Demolition may be permitted in advance of the replacement housing if the Director determines that the removal of the unit(s) is necessary to protect public health and safety. (EXISTING LCP REVISED)

Commented [A23]: This policy should match state housing law on prohibiting displacement consistent with Policy 6042. "Replacement Housing Prior to Displacement; Notices to Displaced Persons"

Policy C-LU-5p: Prohibit conversion of rental units currently providing low and moderate income housing opportunities to X.Y.Z higher cost housing, short term rentals, unless the conversion provides a greater affordable housing opportunity. (EXISTING LCP)

Commented [A24]: Please define here what the conversion of rental units would be to

Policy C-LU-5q: Consistent with state law, the following criteria shall be considered when evaluating an application for condominium conversion:

Commented [A25]: Please explain the reasoning behind including these policies. Generally, the level of detail provided here is not common to have in a LCP, and may not be supported by the Coastal Act

- (1) The surplus of vacant multifamily residential units offered for rent or lease must be in excess of 5 percent of the available multifamily rental stock in the community in which the proposed project is located.
- (2) At least 30 percent of the units included in the proposed condominium conversion must be reserved for sale to Low and Very Low Income households by means of an Affordable Housing Agreement to ensure that such units remain affordable to Very Low and Low Income households for the maximum period allowed by law.
- (3) Tenants must be granted the right of first refusal concerning the purchase of the units. Tenants who are 60 years or older should be offered lifetime leases. Tenants not qualifying for lifetime leases must be offered a 10-year lease. The subdivider must provide a plan to assist in relocating tenants displaced by the conversion to comparable rental housing. (EXISTING LCP REVISED PER HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT)

Commented [A26]: Please reference the law being cited here, as well as please make clear where you're drawing these housing rankings from.

Policy C-LU-5r: Allow Accessory Dwelling Units consistent with most recent Coastal Commission guidance found in Appendix XX. (EXISTING LCP)

Policy C-LU-5s: Changes in use or closure of a mobile home park shall comply with state law and require a Use Permit. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1M)

Policy C-LU-5dd: Encourage development of employer provided or subsidized affordable housing for employees (Existing LCP – Permit Sonoma / CC recommended change)

C-LU-5u: Encourage service providers to retain adequate sewer and water service capacities for housing units affordable to Moderate and Low Income households. (New: HCD certified 2014 Housing Element Policy HE-2h. Permit Sonoma / CC recommended change)

3.3 VISITOR-SERVING COMMERCIAL FACILITIES

Recreational uses require support facilities such as motels, restaurants, grocery stores, auto service stations, and public restrooms. This section contains an inventory of existing visitor-serving and local-serving facilities, identifies areas suitable for their development, and recommends the type of and location for these facilities.

The California Coastal Act of 1976 encourages providing support facilities for visitors to the coast, especially those available to the public at a moderate cost.

Existing Visitor-Serving Commercial Facilities

Below are the definitions of visitor-serving versus local-serving commercial facilities:

- (1) Visitor-serving commercial facilities or uses include development that provides basic support services for visitors such as motels, restaurants, grocery stores, auto service stations, and public restrooms. Most of these facilities on the Sonoma County coast are both visitor-serving and local-serving.
- (2) Local-serving commercial facilities or uses include all other private commercial development that provides for the needs of the local population such as professional offices, utilities, banks, and fishing industry support services.

Visitor-serving and local-serving commercial facilities accessible to the Sonoma County coast are concentrated primarily in The Sea Ranch, Bodega Bay, and Gualala in Mendocino County. These areas are the most suitable for expanding visitor-serving commercial facilities due to the availability of public services and existing development. Other small service centers are scattered along the Sonoma County coast and just inland. Jenner and Duncans Mills on the North Coast and Valley Ford on the South Coast are secondary locations along the coast with isolated services (i.e., spot commercial services such as single grocery stores).

Three visitor centers serve the North Coast: Redwood Coasts Chamber of Commerce in Gualala; Russian River Chamber of Commerce and Visitor Center in Guerneville; and Jenner Visitors' Center in Jenner. The South Coast is served by the Sonoma Coast Visitor Center in Bodega Bay. There are an estimated 600 vacation rentals in the Coastal Zone with the majority located in the Sea Ranch and

Commented [A27]: Consider if this section might be more appropriate in the public access chapter

Commented [A28]: Please add this definition to the glossary.

Bodega Harbour subdivision. **Tables C-LU-1 and C-LU-1** provide summaries of visitor serving overnight accommodations in the Coastal Zone.

Table C-LU-1. North Coast Overnight Accommodations

<i>Facility</i>	<i>Hotel/Motel Rooms</i>	<i>Campground Spaces</i>
Gualala Point Regional Park		8
Salt Point State Park		160 ²
Ocean Cove - private campground		175
Sea Ranch Lodge	19	
Ocean Cove Lodge Bar & Grill	16	
Stillwater Cover Regional Park		23
Timber Cove - private campground		25
Timber Cove Lodge	42	
Fort Ross State Historic Park Unit		21
Fort Ross Reef Campground		21
Fort Ross Lodge	22	
Duncans Mills Campground		125
Inn at Duncans Mills	5	
River's End	5	
Jenner Inn & Cottages	21	
Seacliff Motel ¹	16	
Surf Motel ¹	20	
Breakers Inn ¹	28	
Gualala Country Inn ¹	19	
Gualala River Redwood Park ¹		111
Total in North Coast	130	527

Notes:
¹ Located in Mendocino County's Coastal Zone, within 1.5 miles of the Sonoma-Mendocino county line.
² Includes 20 overflow campground spaces.

Table C-LU-2. South Coast Overnight Accommodations

<i>Facility</i>	<i>Hotel/Motel Rooms</i>	<i>Campground Spaces</i>
Bay Hill Mansion	5	
Bodega Bay Inn	5	
Bodega Bay Lodge	83	
Bodega Bay Coast Inn & Suites	44	
The Inn at the Tides	85	
Bodega Harbor Inn	16	
Casini Family Ranch		225
Sonoma Coast State Park Unit – Willow Creek Campground		11
Sonoma Coast State Park Unit – Wrights Beach Campground		27
Sonoma Coast State Park Unit – Pomo Canyon Campground		20
Sonoma Coast State Park Unit – Bodega Dunes Campground		98
Westside Regional Park		47
Doran Beach Regional Park		139
Valley Ford Hotel	6	
Total in South Coast	244	556

Goals, Objectives, and Policies | Visitor-Serving Commercial Facilities

GOAL C-LU-6: Encourage Public Access and visitor serving uses in the Coastal Zone.

Goal C-LU-6.1: Establish adequate commercial services for visitors on the Sonoma County coast where such development can be accommodated with minimal impacts on views and natural resources.

Objective C-LU-6.1: Identify and develop new or expand existing commercial services for visitors in urban service areas and rural communities.

Planning and Reviewing Visitor-Serving Development

Policy C-LU-6a: Encourage the development and expansion of visitor-serving and local-serving commercial uses within urban service areas and rural community boundaries where water supply and wastewater disposal requirements can be met. (EXISTING LCP REVISED)

Policy C-LU-6b: Limit new visitor-serving commercial development to areas within designated urban service areas and rural community boundaries except for the lowest intensity development (i.e., guest ranches, and bed and breakfast inns, vacation rentals, and agricultural farmstays). (EXISTING LCP REVISED)

Policy C-LU-6c: Provide public restrooms and drinking water facilities where needed and appropriate as part of visitor and local-serving commercial development. (EXISTING LCP REVISED)

Encouraging Visitor-Serving Development

Policy C-LU-6d: Allow minor expansion of existing visitor-serving and local-serving commercial uses outside of urban service areas and rural community boundaries where water supply and wastewater disposal requirements can be met. (EXISTING LCP REVISED)

Policy C-LU-6e: Encourage the provision of modest scale overnight accommodations which have minimal impacts on the coastal environment, including bed and breakfast accommodations in existing homes, guest ranches, inns, and motels. Guest ranches in agricultural areas shall be compatible with continued ranch operations and be limited to the allowable residential density. (EXISTING LCP REVISED)

Policy C-LU-6f: Encourage expansion of overnight accommodations and other visitor-serving commercial uses; and local-serving commercial uses on Annapolis Road. (EXISTING LCP REVISED)

Policy C-LU-6g: Encourage development of limited visitor-serving and local-serving commercial uses at Stewarts Point designed to complement the historic character of the community. (EXISTING LCP REVISED)

Commented [A29]: Where is this limited to? Link this to relevant Sonoma zoning.

Commented [A30]: This appears to contradict C-LU-6b, where it says development is limited. In addition, minor is too vague and should be defined.

Policy C-LU-6h: Allow minor expansion of existing or certain new visitor-serving commercial uses east of State Highway 1 near the Ocean Cove Store including overnight accommodations and a public horse stable **consistent with Sonoma County Board of Supervisors Resolution 09-0220.** (EXISTING LCP REVISED)

Policy C-LU-6i: Limit development west of State Highway 1 at the Ocean Cove Resort to a day use area and campground. Any development proposals should include provisions for pedestrian safety on State Highway 1, erosion control measures, rehabilitating the degraded bluffs at the cove, and if needed the provision of parking for development consistent with Policy LU-6h. (EXISTING LCP REVISED)

Commented [A31]: Any proposals west of Highway 1 should also take into account SLR predictions.

Policy C-LU-6j: Encourage adaptive reuse of the historic barn west of State Highway 1 at the Ocean Cove Resort. (EXISTING LCP REVISED)

Policy C-LU-6k: Allow minor expansion of existing inn facilities and development of a public horse stable at the Stillwater Cove Ranch. (EXISTING LCP REVISED)

Policy C-LU-6l: Limit expansion at the Timber Cove Inn to improved parking and public access facilities. (EXISTING LCP REVISED)

Policy C-LU-6m: Encourage provision of screening and other design improvements at the Timber Cove Boat Landing. (EXISTING LCP REVISED)

Policy C-LU-6n: Allow limited new or expansion of existing visitor or local-serving commercial uses, in the vicinity of the Fort Ross Store, subject to design controls review to preserve the area's scenic character. (EXISTING LCP REVISED)

Policy C-LU-6o: Encourage a modest infill of visitor and local-serving commercial development in Jenner if water supply and wastewater treatment and disposal requirements can be met. (EXISTING LCP REVISED)

Policy C-LU-6p: Encourage provision of overnight accommodations of modest scale and cost and expansion of other visitor and local-serving commercial services uses at Duncans Mills. (EXISTING LCP REVISED)

Policy C-LU-6q: Encourage expansion of public access the Bridgehaven Resort, by adding boat rentals and launching and day use facilities subject to design review. Require public access as a condition of for approval of any Coastal Permit for expansion of uses at the resort. (EXISTING LCP REVISED)

Policy C-LU-6r: Encourage new and expansion of existing commercial uses in Bodega Bay. Encourage expansion of Chanslor Ranch consistent with continued agricultural use if water supply and wastewater treatment and disposal requirements can be met. (EXISTING LCP REVISED)

Policy C-LU-6s: Encourage modest expansion of commercial uses in Valley Ford if water supply and wastewater treatment and disposal requirements can be met. (EXISTING LCP REVISED)

Commented [A32]: Please ensure these policies are consistent with ag and facilities and services chapter.

3.4 COMMUNITIES

Adequate housing and commercial development are needed to serve the resident population and visitors but must be consistent with continued resource uses for agricultural production, commercial fishing, and timber, as well as, the protection of sensitive coastal resources and available services.

Most new residential development is planned in Bodega Bay, where a full range of public services can be efficiently provided. The present alignment of State Highway 1 through this area is a major development constraint due to traffic congestion.

Increased tourism on the Sonoma County coast may result in an imbalance between local and tourist oriented commercial development. Visitor-serving uses, particularly lodging, are often located near scenic resources and overconcentration will likely degrade visual quality of the area.

Land use policy and regulation within The Sea Ranch is subject to the provisions of Public Resources Code Section 30610.6 (e) (“Bane Bill”), Exclusion Orders E-82-2 and E-82-2-A, and the Sea Ranch Amended Precise Development Plan Policy Statement, which establish building locations, bulk standards, view management, public access, and limits to the total number of lots within each unit of The Sea Ranch subdivision.

This policy framework delegates review authority for most development to The Sea Ranch Association and their committees, which must review and approve development applications before permits can be issued by Sonoma County. Development that has been approved by The Sea Ranch Association is excluded from needing a Coastal Development Permit.

Goals, Objectives, and Policies | Communities

GOAL C-LU-2: Protect the natural and scenic resources and the unique character and qualities of the Sonoma County coast by allowing new residential and commercial development only in appropriate areas at appropriate densities.

Commented [A33]: Please use more specific language here

Objective C-LU-2.1: Concentrate new housing within the Bodega Bay Urban Service Area. Provide additional residential development in rural areas at very low densities to maintain local resources.

Objective C-LU-2.2: Balance residential and commercial development in Bodega Bay where adequate public services allow for residential and commercial expansion. Encourage a mix of price and rent levels.

Commented [A34]: Consider combining these two overlapping objectives.

Objective C-LU-2.3: Designate Bodega Bay as the major retail and service center for the coast. Permit limited opportunities for new commercial activities in the communities of The Sea Ranch, Duncans Mills, Jenner, and Stewarts Point, in keeping with their size and character.

Objective C-LU-2.4: Limit the scale of any new visitor and tourist-oriented uses and confine them to existing communities and locations that are designated for such uses. Assure that they are compatible with and protect the area's natural, undeveloped scenic character.

Objective C-LU-2.5: Limit new industrial development to resource related uses, primarily to the fishing and other marine industries in Bodega Bay and to the timber industry near Stewart's Point.

Objective C-LU-2.6: Maintain very low residential densities on resource lands outside existing communities due to the lack of public services and importance of resource protection.

Objective C-LU-2.7: Regulate land use and approve development at The Sea Ranch consistent with Public Resources Code Section 30610.6 (e) (Bane Bill), adopted Exclusion Orders, and the Sea Ranch Precise Development Plan Policy Statement. (EXISTING LCP REVISED)

Policy C-LU-2a: The Urban Residential land use category shall be applied only within the Urban Service Boundary of Bodega Bay. Densities of one unit per acre or lower shall be maintained in other communities. (GP2020)

Policy C-LU-2b: Encourage construction of new housing for low and moderate income households under the Density Bonus or Housing Opportunity Area Programs outlined in the Coastal Zoning Ordinance. Achieving a density higher than 4 units per acre under either Program is permitted where higher density will not impact coastal resources or reduce public access. ~~may not require a Local Coastal Plan Amendment.~~ (GP2020)

Commented [A35]: Please be more specific here about what may or may not require a LCP amendment.

Policy C-LU-2c: The Commercial Services land use category shall be used for existing and any needed new local commercial uses in Bodega Bay and The Sea Ranch. Outside these communities, the Commercial Services designation shall be applied only to existing uses and limit their expansion. (GP2020)

Policy C-LU-2d: Development projects in any commercial land use categories shall be designed in harmony with the natural and scenic qualities of the local area. Natural landscapes shall be given precedence over manmade features. (GP2020)

Policy C-LU-2e: In the Bodega Bay area, the Commercial Fishing land use category shall be used to support the commercial fishing industry, including storage and processing facilities. (NEW)

Policy C-LU-2f: Fishing related industrial uses that require public services shall be located near Bodega Bay. Other fishing related commercial and industrial uses shall be considered coastal dependent uses. (GP2020)

Policy C-LU-2g: Notwithstanding the provisions of the Public Facilities and Services Element, connection of sewer service to the Bodega Bay Public Utilities District shall be allowed for uses that directly relate to and support the fishing industry in Bodega Bay and that cannot be located within the Urban Service Area. An out-of-service area agreement shall be used in such cases. (GP2020)

Policy C-LU-2h: Barns and similar agricultural support structures within the 200-foot State Scenic Highway 116 corridor shall be subject to design review. (GP2020)

Commented [A36]: Consider moving this policy to the Ag. chapter.

Policy C-LU-2i: Identify Urban Service Area Boundaries on the Land Use Maps for The Sea Ranch North (**Figure C-LU-1a**), The Sea Ranch South (**Figure C-LU-1b**), and Bodega Bay (**Figure C-LU-1j**). (EXISTING LCP REVISED)

Policy C-LU-2j: Designate the following areas as Rural Communities (listed from north to south): (EXISTING LCP REVISED)

- Stewarts Point
- Timber Cove and Timber Cove Resort, including developed areas adjacent to the subdivision south to and including the Fort Ross Store
- Jenner
- Duncans Mills
- Rancho del Paradiso
- West Beach
- Sereno del Mar
- Carmet
- Salmon Creek
- Valley Ford

Policy C-LU-2m: Water and sewer service extensions to public parklands outside of Urban Service Areas may be allowed only where consistent with the Public Facilities and Services and Public Access Elements. An out-of-service area agreement shall be used in such cases. (EXISTING LCP REVISED)

Commented [A37]: Consider moving this to the Public Facilities and Services chapter.

Policy C-LU-2n: Restrict commercial development to designated Urban Service Areas and Rural Community boundaries, except where development proposed for areas beyond these boundaries would be consistent with the Public Facilities and Services and Public Access Elements. (EXISTING LCP REVISED)

Commented [A38]: Re-number

Policy C-LU-2n: Processing of permits for development or land use with The Sea Ranch shall be consistent with and follow the provisions of Public Resources Code Section 30610.6 (e) (Bane Bill), adopted Exclusion Orders, and the Sea Ranch Precise Development Plan Policy Statement. (EXISTING LCP REVISED)

Policy C-LU-2n: Applications for development permits, including, but not limited to residential construction, subdivision, or lot line adjustment that are subject to design review

by The Sea Ranch Design Committee shall not be accepted without final approval from The Sea Ranch Design Committee. (EXISTING LCP REVISED)

Policy C-LU-2n: Rehabilitation and adequate maintenance of Sea Ranch Apartments shall be supported to the maximum extent feasible, including identification of sustainable funding to maintain these affordable dwelling units. (EXISTING LCP REVISED)

4 IMPLEMENTATION PROGRAMS

4.1 LAND USE IMPLEMENTATION PROGRAMS

Program C-LU-1: Establish performance standards for the use of existing residences for vacation rentals and hosted rentals. In developing standards, consider requirements for designated property managers ([On site vs. Not](#)), safety, parking, noise, and number of guests allowed for day time and nighttime occupancy. In addition to performance standards, identify areas where high concentration of vacation rental would impact environmentally sensitive habitat areas, water quality, or coastal access and develop land use policy to avoid these impacts. (NEW)

Commented [A39]: Is there a current Sonoma vacation rental ordinance? If so, include it here.

Program C-LU-2: Draft an ordinance to allow workforce/employee housing in the coastal zone. The ordinance is intended to support coastal priority land uses including commercial fishing, resource dependent uses, recreation, and visitor serving commercial uses. Ensure that workforce/employee housing supports priority uses, is scaled and located appropriately for the size of the supported use and surrounding neighborhood, protects coastal resources and scenic views, has adequate water and waste management, supports reduction of greenhouse gas emissions, and is not vulnerable to climate change related impacts including coastal bluff erosion and sea level rise for the life of the project [and is consistent with all the polices of this chapter](#).. (NEW)

Program C-LU-3: Consider developing a parking management program for Bodega Bay commercial areas. (NEW)

Commented [A40]: Use stronger language here such as prioritize or develop

Program C-LU-4: Develop a comprehensive manual outlining policies and procedures for processing permit applications within The Sea Ranch. The manual will outline the roles, responsibilities, and authorities of The Sea Ranch Association, Sonoma County, North Coast Regional Water Quality Control Board, and California Coastal Commission, and provide clear direction for both landowners and agencies when processing applications within The Sea Ranch.

4.2 OTHER INITIATIVES

Other Initiative C-LU-1: Encourage service providers to retain adequate sewer and water service capacities for housing units affordable to Moderate and Low Income households.

(NEW: HCD CERTIFIED 2014 HOUSING ELEMENT POLICY HE-2H)

Other Initiative C-LU-2: Encourage development of employer provided or subsidized affordable housing for employees. (EXISTING LCP)

Other Initiative C-LU-3: Consider increasing funding priority for the acquisition of affordable units and rehabilitation and maintenance of existing affordable units. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1E)

Other Initiative C-LU-4: Conserve the existing affordable housing stock by providing funding through the Community Development Commission to nonprofit organizations to subsidize the acquisition of at-risk properties where those units will be restricted to long-term occupancy by low, very-low and extremely-low income households. (NEW: HCD CERTIFIED GENERAL PLAN 2014 HOUSING ELEMENT POLICY HE-1D)

Other Initiative C-LU-5: Expand collection of data on visitor use of public access facilities and the methods used for monitoring visitor use patterns, to adjust to increasing demand for facilities and to assist in identifying needs for additional facilities. (NEW)

Commented [A41]: Much of the initiatives here appear to belong in the Public works and Facilities chapter.

Commented [A42]: This should be in the Public Works chapter. Make sure allocations are outlined, making sure Coastal Act priority uses are prioritized.

Commented [A43]: This should be in the public access section

Figure C-LU-1a: Land Use – SubArea 1 – The Sea Ranch North
(11x17)



Figure C-LU-1b: Land Use – SubArea 2 – The Sea Ranch South
(11x17)



Figure C-LU-1c: Land Use – SubArea 3 – Stewarts Point/Horseshoe Cove
(11x17)

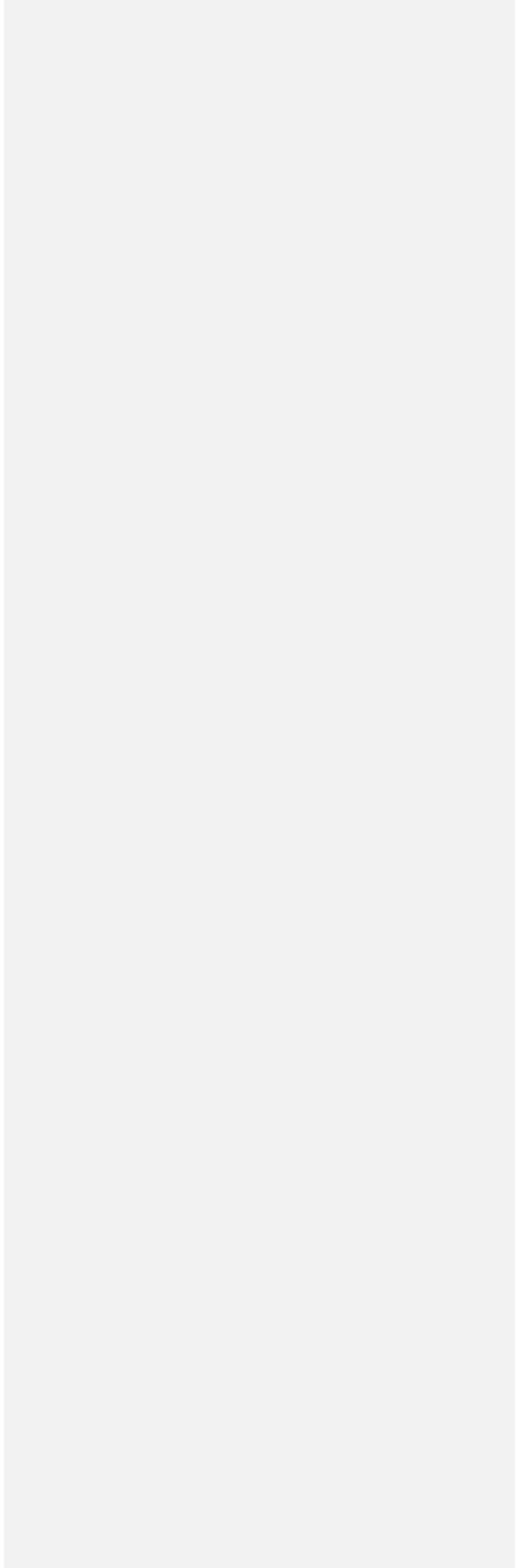


Figure C-LU-1d: Land Use – SubArea 4 – Salt Point
(11x17)

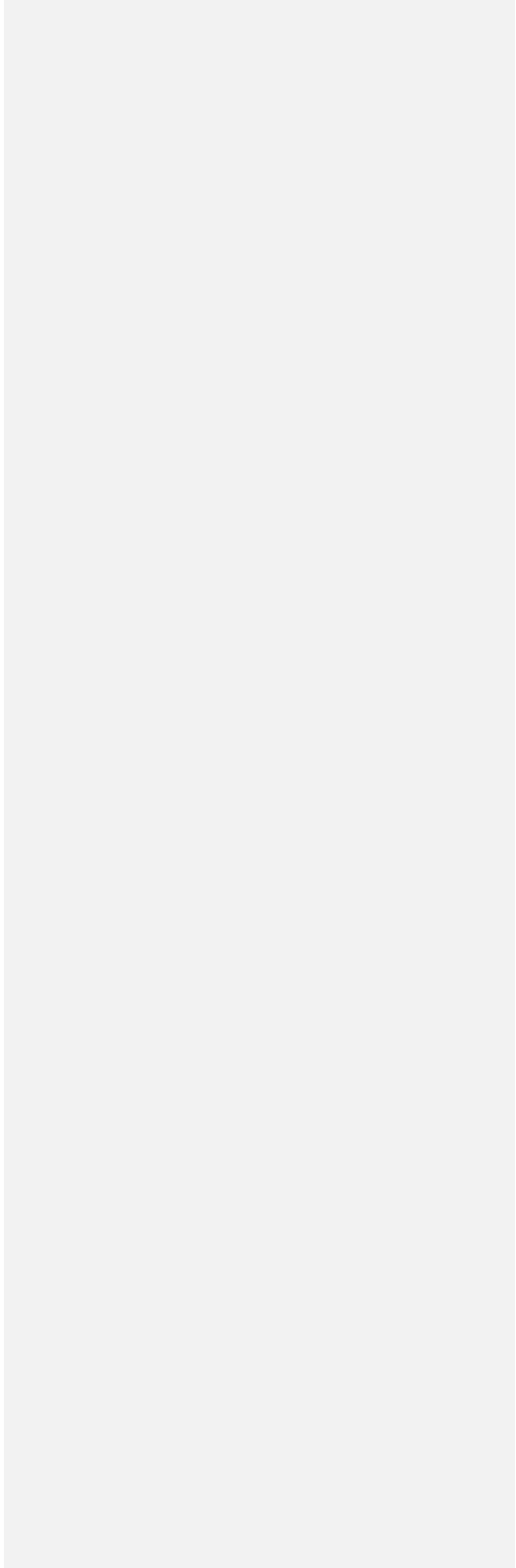


Figure C-LU-1e: Land Use – SubArea 5 – Timber Cove/Fort Ross
(11x17)

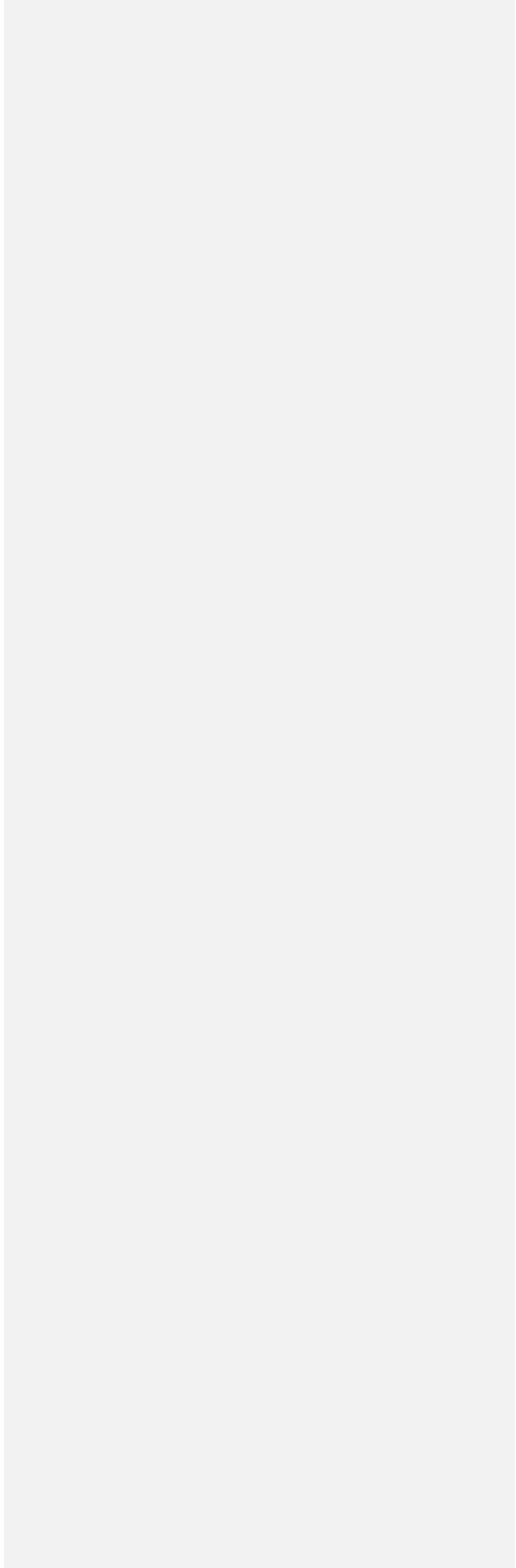


Figure C-LU-1f: Land Use – SubArea 6 – Highcliffs/Muniz-Jenner
(11x17)

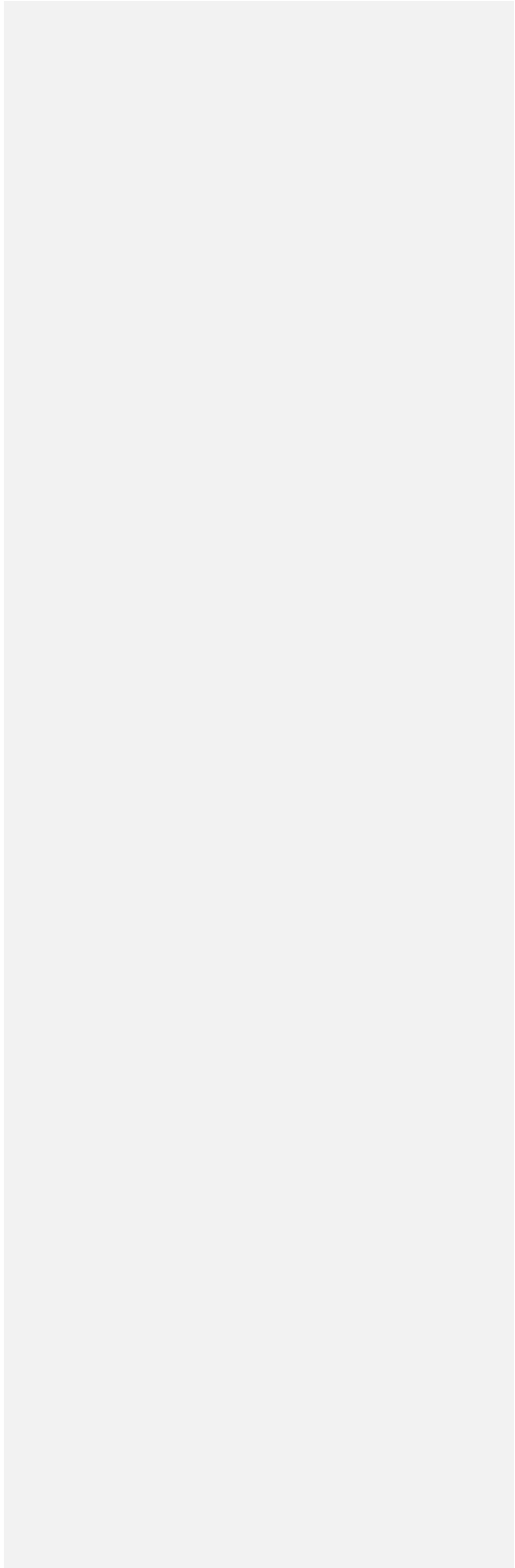


Figure C-LU-1g: Land Use – SubArea 7 – Duncans Mills
(11x17)

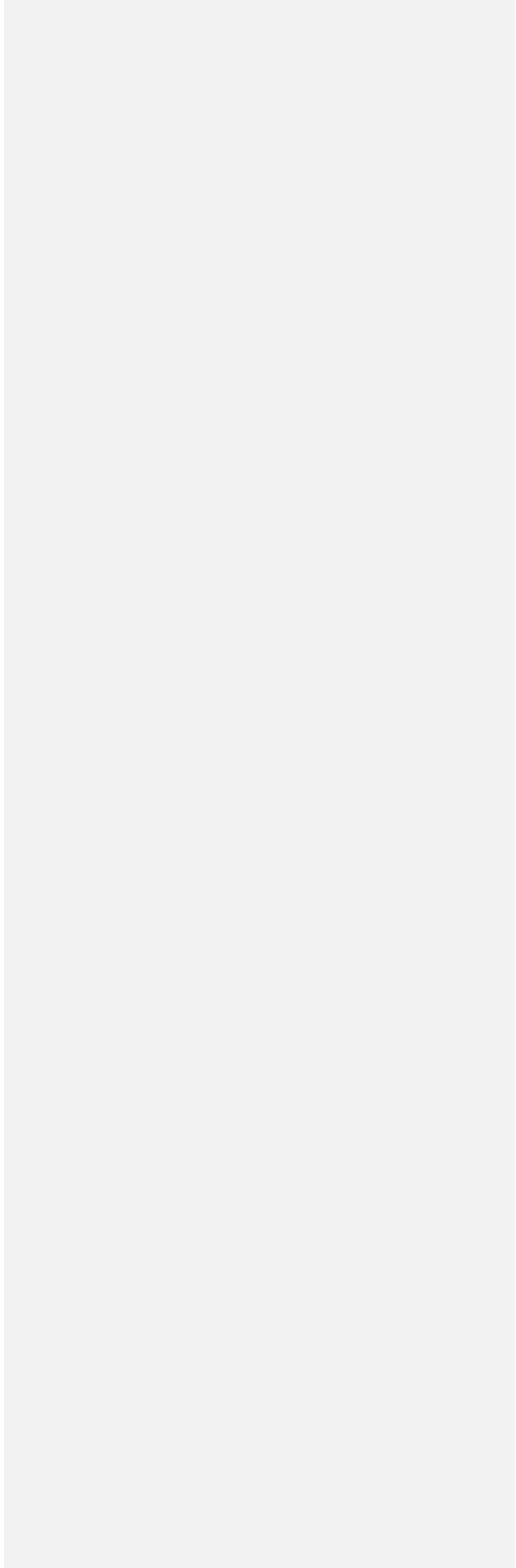


Figure C-LU-1h: Land Use – SubArea 8 – Pacific View/Willow Creek
(11x17)

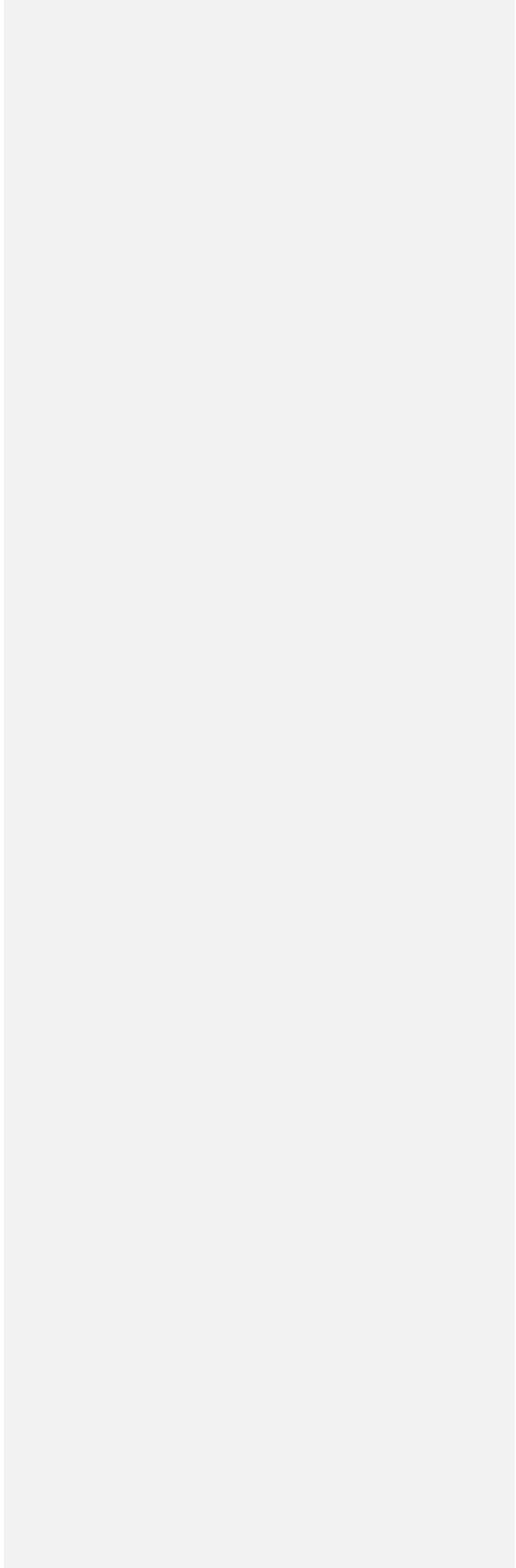


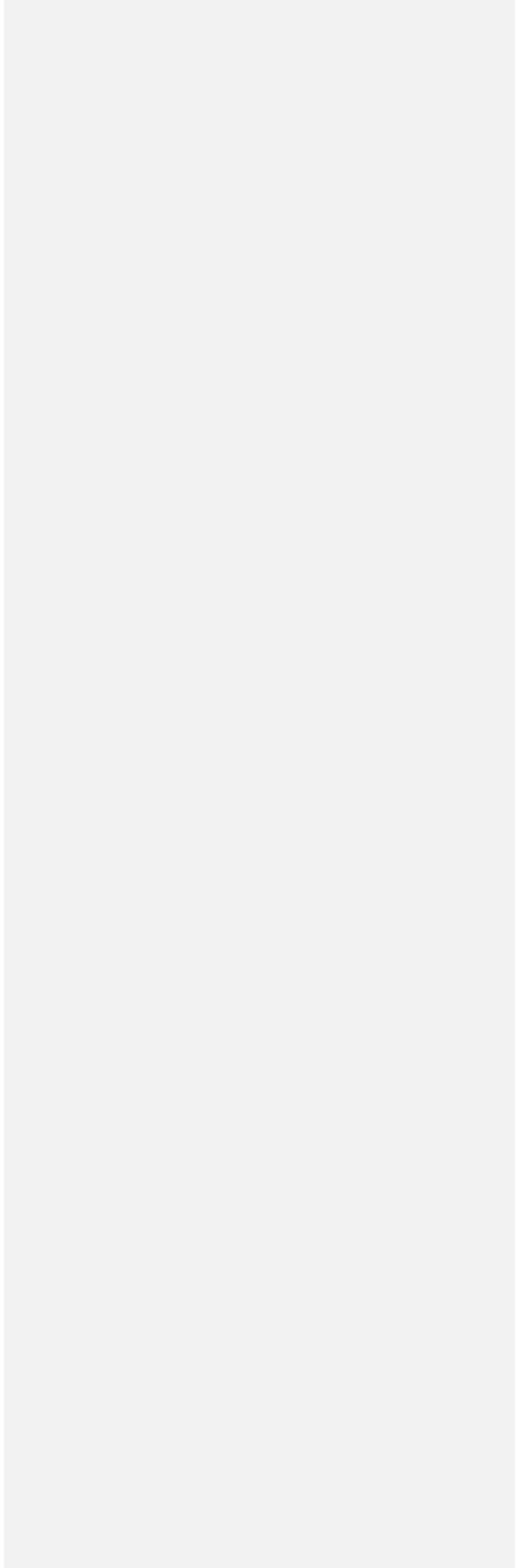
Figure C-LU-1i: Land Use – SubArea 9 – State Beach/Bodega Bay
(11x17)



Figure C-LU-1j: Land Use – SubArea 9 – Bodega Bay Vicinity
(11x17)



Figure C-LU-1k: Land Use – SubArea 10 – Valley Ford
(11x17)



CALIFORNIA COASTAL COMMISSION

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November 22, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

**Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update:
Cultural Resources Chapter**

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 3: Agricultural Resources.

- 1. Zoning Districts: Diverse Agriculture and Land Extensive Agriculture.** Please clarify whether both agricultural zoning districts (Diverse Agriculture - DA, and Land Extensive Agriculture - LEA) will be treated the same in terms of allowable uses, conversion policies, and other policies. As there is only one set of policies in this chapter, it appears as though the two districts will be handled identically, although this hasn't been directly addressed to-date.
- 2. Conversion Policies.** Proposed policy C-AR-1.1 states: "*Avoid the conversion of agricultural lands to residential or non-agricultural commercial uses.*" The draft LUP should clarify whether this means that no conversions of agricultural land will be permitted. If that is not the case, and some conversions will be permitted as appears to be the case under Policy C-AR-1a, "*...agricultural conversions shall be limited and evaluated on a case-by-case basis...*," additional policies should be incorporated to this point, including regarding mitigation consistent with the Coastal Act.
- 3. Prime and Non-Prime Agricultural Land.** Policy C-AR-4a refers to "Prime" and "Non-Prime" agricultural land. There should be a discussion in the body of this element that describes what constitutes "Prime" and "Non-Prime" agricultural land in Sonoma County. There is mention of "highest-rated land," but it is unclear whether this is meant to refer to prime agricultural land. Please see relevant sample language from the City of Half Moon Bay 2020 Certified LUP:

“The California Coastal Act provides protection for viable and prime agricultural land in the Coastal Zone. The Act defines “prime agricultural land” as consistent with subsections 1, 2, 3, or 4 of Government Code Section 51201(c), as follows:

(c) “Prime agricultural land” means any of the following:

(1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.

(2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.

(3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.

(4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars (\$200) per acre.

In contrast, “non-prime agricultural land” consists of other coastal agricultural lands that do not qualify as prime but are in use for crops or grazing or are otherwise suitable for agriculture.”

4. Farmland of Local Importance and Grazing Land. These two terms are referenced in this Element and are the two distinguishing categories in the Agricultural Resources Map Series. Please include a discussion and/or a set of policies that address how these two categories are associated with the relevant Coastal Act policies, specifically Coastal Act Section 30113; Government Code Section 51201(c).

5. Agricultural Worker Housing. Please provide additional details in the policies on agricultural worker housing, including when it is allowed, when it might apply to density, and the amount allowed. Relevant sample language from the Marin County 2021 certified LUP includes:

C-AG-5 Agricultural Dwelling Units (Farmhouses, Intergenerational Housing, and Agricultural Worker Housing). Support the preservation of family farms by facilitating multigenerational operation and succession.

A. Agricultural dwelling units may be permitted on C-APZ lands subject to the policies below, as well as any applicable requirement in C-AG-6, 7, 8, and 9. Agricultural dwelling units must be owned by a farmer or operator actively and directly engaged in agricultural use of the property. No more than a combined total of 7,000 sq ft (plus 540 square feet of garage space and 500 square feet of office space in the farmhouse used in connection with the agricultural operation) may be permitted as an agricultural dwelling per farm tract, defined in this LCP as all contiguous legal lots under common ownership within a C-APZ zoning district, whether in a single farmhouse or in a combination of a farmhouse and intergenerational homes(s). Intergenerational farm homes may only be occupied by persons authorized by the farm owner or operator,

shall not be divided from the rest of the legal lot, and shall be consistent with the standards of C-AG-7 and the building size limitations of C-AG-9. Such intergenerational homes shall not be subject to the requirement for an Agricultural Production and Stewardship Plan (C-AG-8), or permanent agricultural conservation easement (C-AG-7). A density of 60 acres per unit shall be required for each farmhouse and intergenerational house (i.e. at least 60 acres for a farmhouse, 120 acres for a farmhouse and an intergenerational house, and 180 acres required for a farmhouse and two intergenerational homes), including any existing homes. The reviewing authority shall consider all contiguous properties under the same ownership to achieve the requirements of the LCP. No Use Permit shall be required for the first intergenerational home on a qualifying farm tract, but a Use Permit shall be required for a second intergenerational home. No more than 27 intergenerational homes may be allowed in the County's coastal zone.

B. Agricultural worker housing providing accommodations consisting of no more than 36 beds in group living quarters per legal lot or 12 units or spaces per legal lot for agricultural workers and their households shall not be included in the calculation of density in the following zoning districts: C-ARP, C-APZ, C-RA, and C-OA. Additional agricultural worker housing above such 36 beds or 12 units shall be subject to the density requirements applicable to the zoning district. An application for agricultural worker housing above such 36 beds or 12 units shall include a worker housing needs assessment and plan, including evaluation of other available worker housing in the area. The amount of approved worker housing shall be commensurate with the demonstrated need. Approval of agricultural worker housing shall require recording a restrictive covenant running with the land for the benefit of the County ensuring that the agricultural worker housing will continuously be maintained as such, or, if no longer needed, for non-dwelling agricultural production related uses.

The list above is intended as a complement to the in-line edits and comments provided for the Agricultural Resources Element but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff.

Again, we thank you for your efforts to-date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Agricultural Resources Element: Table of Contents

Agricultural Resources Element	2
1 Introduction	2
1.1 Purpose.....	2
2 Background.....	2
2.1 Farmland In the Coastal Zone	2
3 Impacts of Climate Change.....	3
4 Agricultural Resources Policies.....	4
4.1 Residential Subdivision Potential.....	4
Goals, Objectives, and Policies Residential Subdivision Potential	4
4.2 Protection of Agricultural Land	5
Goals, Objectives, and Policies Protection of Agricultural Land	6
4.3 Agricultural Support Uses.....	8
4.3.1 Agricultural Processing and Agricultural Services	8
4.3.2 Agricultural Visitor-Serving Uses (Agricultural Tourism)	8
Goals, Objectives, and Policies Agricultural Support Uses	9
4.4 Farmworker Housing	11
Goals, Objectives, and Policies Farmworker Housing	11
4.5 Marine Aquaculture and Fishing.....	11
Goals, Objectives, and Policies Marine Aquaculture and Fishing.....	12
5 Implementation Programs.....	13
5.1 Agricultural Resource Implementation Programs	13
5.2 Other Initiatives	13

Agricultural Resources Element

I INTRODUCTION

I.1 PURPOSE

The purpose of the Agricultural Resources Element is to establish policies to ensure the protection and maintenance of agriculture for its economic, environmental, and social values. The Element is intended to provide clear guidelines for decisions in the two agricultural zones within the Coastal Zone—Diverse Agriculture (DA) and Land Extensive Agriculture (LEA)—as well as areas where agricultural land uses exist in the Resources and Rural Development (RRD) and Agricultural Residential (AR) zones.

The California Coastal Act protects productive resource lands, including agricultural lands, and establishes agriculture as a priority use and emphasizes the retention of agricultural land in production.

In this Local Coastal Plan, agriculture is defined as the production and processing of food, fiber, and plant materials; and includes the raising and maintaining of farm animals including horses, donkeys, mules, and similar livestock.

2 BACKGROUND

2.1 FARMLAND IN THE COASTAL ZONE

There are about 28,000 acres of land with agricultural land use designations (Land Extensive Agriculture and Diverse Agriculture) in the Coastal Zone. The Land Use Element contains a detailed explanation of the agricultural land use designations.

The California Department of Conservation Farmland Mapping and Monitoring Program¹ establishes ratings for agricultural land based on soil quality and irrigation status. In the Coastal Zone, there is none of the highest-rated land, but there are lands designated as Grazing Land and Farmland of Local Importance². Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county.

Grazing Land makes up nearly half of all the land in the Coastal Zone (see **Table C-AR-1**, below). Grazing Land means “land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock” (Gov. Code Section 65560) and includes

¹ <https://www.conservation.ca.gov/dlrp/fmmp>

² As defined in Government Code Section 65560.

Commented [A1]: Please include all applicable Coastal Act Policies, including Section 30241, 30241.5, 30242, 30250,

Commented [A2]: Does this mean “Prime Agricultural Land” as consistent with subsections 1, 2, 3, or 4 of Government Code Section 51201(c)? It would be helpful to include a short discussion of “Prime” vs “Non-Prime” Agricultural land, as well as how the Coastal Act interacts with non-prime agricultural land since it seems there is no prime agricultural land in the Coastal Zone.

Commented [A3]: Please include a short summary here on what constitutes “Farmland of Local Importance” since it is referenced extensively in this document.

land used for sheep and cattle grazing and dairies. The cool, moist climate of western Sonoma County generally produces better rangeland than inland, reducing the need for supplemental feed and irrigated pasture. Grazing Land occurs in all subareas except The Sea Ranch North. The largest acreage and highest percentage of Grazing Land are in the Bodega Bay and Valley Ford Subareas, respectively. Grazing lands are mostly in the northern coast, while dairies are prevalent in the Valley Ford subarea.

Farmland of Local Importance makes up only about four percent of all land in the Coastal Zone, and is located in nine of the ten subareas. The largest acreage and highest percentage of Farmland of Local Importance are in the Salt Point and The Sea Ranch North subareas, respectively.

Table C-AR-1. **Acreage of Important Farmlands by subarea on the Sonoma County Coast**

Subarea	Grazing Land (acres)	Farmland of Local Importance (acres)	Total Land (acres)
1 – The Sea Ranch North	0	381	2,962
2 – The Sea Ranch South	40	323	2,792
3 – Stewarts Point/Horse-shoe Cove	775	83	3,158
4 – Salt Point	88	492	5,859
5 – Timber Cove/Fort Ross	2,595	159	7,659
6 – High Cliffs/ Muniz-Jenner	2,081	143	3,401
7 – Duncans Mills	780	32	1,290
8 – Pacific View/Willow Creek	7,164	99	11,875
9 – Bodega Bay	7,519	0	10,156
10 – Valley Ford	4,871	485	5,465
Total	25,913	2,196	54,617
Percent of Total	47%	4%	100%

Figures C-AR-1a through C-AR-1k show the Agricultural Resources in the ten subareas of the Sonoma County coast.

3 IMPACTS OF CLIMATE CHANGE

Climate change will impact agriculture on the Sonoma County coast. Agriculture is highly dependent on specific climate conditions, and understanding the overall effect of climate change on agriculture can be difficult. Changes in the frequency and severity of droughts and floods could pose challenges for farmers and ranchers. Changes in temperature, amount of carbon dioxide in the atmosphere, and the frequency and intensity of extreme weather could have significant impacts on crop yields.

Climate change could affect animals both directly and indirectly. Extreme heat events, which are projected to increase under climate change, could directly threaten livestock. Drought may threaten pasture and feed supplies and reduce water availability for livestock. Climate change may increase the prevalence of parasites and diseases that affect livestock. Increases in atmospheric carbon dioxide may increase the productivity of pastures, but may also decrease their quality.

Overall, climate change could make it more difficult to grow crops and raise animals in the same ways and same places as has been done in the past. The effects of climate change also need to be considered along with other evolving factors that affect agricultural production, such as changes in farming practices and technology.

Commented [A4]: Please tie this discussion into policies in not only this chapter, but also to policies in the Water and Hazards elements if possible.”

4 AGRICULTURAL RESOURCES POLICIES

4.1 RESIDENTIAL SUBDIVISION POTENTIAL

Complaints about noise, odors, flies, spraying of pesticides, and similar nuisances related to agricultural practices may discourage and sometimes prevent farmers from managing their operations in an efficient and economic manner. Large lot sizes can reduce conflicts between agricultural and non-agricultural land uses by allowing for buffers between the two. [Appendix C, t](#)he Right to Farm Ordinance (referenced below in **Policy C-AR-3c**) also reduces the potential for such conflicts by requiring property owners to acknowledge the agricultural use of land in the area.

Together with the Land Use Element, the Agricultural Resources Element establishes policies that maintain large parcel sizes in agricultural areas, and support the needs and practices of agriculture as the highest priority in areas designated for agricultural use.

Goals, Objectives, and Policies | Residential Subdivision Potential

GOAL C-AR-1: Maintain the maximum amount of agricultural land in parcel sizes that are large enough to sustain a viable commercial agricultural operation.

Objective C-AR-1.1: Avoid the conversion of agricultural lands to residential or non-agricultural commercial uses.

Objective C-AR-1.2: In the Land Extensive Agriculture and Diverse Agriculture land use categories, maintain the largest land area for agricultural use. Limit the number of cluster lots on any one area to avoid the potential conflicts associated with residential intrusion.

Policy C-AR-1a: The following criteria shall be used for approval of subdivisions on land designated Land Extensive Agriculture or Diverse Agriculture:

- (1) It is consistent with California Coastal Act which requires that (a) the maximum amount of agricultural land shall be maintained in agricultural production, (b) agricultural conversions shall be limited and evaluated on a case-by-case basis, and (c) land divisions outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
- (2) It does not diminish the productivity of the agricultural land.
- (3) The resulting parcels for agricultural use shall each be of a size that can support a viable agricultural operation per California Coastal Act Section 30241.5.
- (4) An open space or agricultural easement shall be applied to the parcels which remain in agricultural use. (NEW)

Policy C-AR-1b: Subdivisions on designated resource and agricultural lands shall be permitted only for development related to the pursuit of either agriculture or forestry, as appropriate; and only with mechanisms such as open space or agricultural easements to ensure the long-term protection of agriculture and resource production. (EXISTING LCP REVISED)

Policy C-AR-1c: Agricultural compatibility and productivity shall be the primary considerations in parcel design and siting of development for subdivisions on lands designated Land Extensive Agriculture or Diverse Agriculture. (EXISTING LCP REVISED)

Policy C-AR-1d: Amendments of the Land Use Map from an agricultural to a non-agricultural use category for the purpose of allowing increased residential density which may conflict with agricultural production shall [REDACTED] (GP2020)

Policy C-AR-1e: Implement minimum parcel sizes and other zoning standards to promote the productive and wise use of resources in Land Extensive Agriculture and Diverse Agriculture Zones, as shown in Table C-AR-2. Minimum Parcel Size and Maximum Residential Density by Agricultural Land Use Category. [REDACTED]

(EXISTING LCP REVISED)

Table C-AR-2. Minimum Parcel Size and Maximum Residential Density by Agricultural Land Use Category

Zone	Applicable Land Use Category	Minimum Parcel Size	Maximum No. of Dwelling Units per Parcel ¹	Maximum Permitted Residential Density (ac/unit) ²
LEA	Land Extensive Agriculture	640 acres	4	160
DA	Diverse Agriculture	160 acres	4	40

Notes:

¹ Applies to all types of dwelling units including single-family dwellings consistent with the residential density, farm family dwellings, full-time agricultural employee units, seasonal and year-round farmworker housing, and accessory dwelling units.

² Density does not apply to farm family dwellings, (LEA only), full-time agricultural employee units, seasonal and year-round farmworker housing, and accessory dwelling units

4.2 PROTECTION OF AGRICULTURAL LAND

As with farmland around the State of California, agricultural lands in the Coastal Zone are subject to pressure to conversion to other uses.

While public access is the highest priority use in the Coastal Zone, agriculture is also a high-priority use (refer to the Land Use Element for a discussion of the priority of land uses in the Coastal Zone). Open space acquisitions by the California Coastal Conservancy, the Sonoma Land Trust, the Sonoma County Agricultural Preservation and Open Space District, Sonoma County Regional Parks, and the California Department of Parks and Recreation have taken some agricultural lands out of production, but in many cases, land managers have demonstrated that working farms and ranches are compatible

Commented [A5]: Is it the intent of the county to avoid agricultural land conversion completely? If not, please include a policy that states when conversion would be ok, including how it would occur and what mitigation would be associated with the conversion. HMB 2020 certified LCP policy on mitigation for conversion of agricultural lands:

4-10. Mitigation for Conversion of Agricultural Lands. All conversions of prime and non-prime agricultural lands to a new non-agricultural use, excluding farmworker housing, agricultural compatible uses, and supplemental uses as defined in this chapter such as habitat restoration and recreation, shall be mitigated at a ratio to be established based on the quality of agricultural lands converted, their location, and other relevant factors as evaluated in a report prepared by a qualified professional for the City's review and approval. Methods for mitigation may include but are not limited to establishing agricultural conservation easements, soil restoration, or in lieu fees in partnership with land trust and conservation agencies. Protection or restoration of agricultural lands within city limits is preferred; followed by lands within the coastal zone of unincorporated San Mateo County and finally by other coastal zone areas.

Commented [A6]: Please explain the intent behind this policy.

Commented [A7]: There needs to be restrictions on the size and type of agricultural worker housing and how it applies to density. Language from the Marin County Certified LUP, C-AG-5b states:

"Agricultural worker housing providing accommodations consisting of no more than 36 beds in group living quarters per legal lot or 12 units or spaces per legal lot for agricultural workers and their households shall not be included in the calculation of density in the following zoning districts: C-ARP, C-APZ, C-RA, and C-OA. Additional agricultural worker housing above such 36 beds or 12 units shall be subject to the density requirements applicable to the zoning district. An application for agricultural worker housing above such 36 beds or 12 units shall include a worker housing needs assessment and plan, including evaluation of other available worker housing in the area. The amount of approved worker housing shall be commensurate with the demonstrated need. Approval of agricultural worker housing shall require recording a restrictive covenant running with the land for the benefit of the County ensuring that the agricultural worker housing will continuously be maintained as such, or, if no longer needed, for non-dwelling agricultural production related uses."

with recreational use and retaining the agricultural use on site can be a significant benefit for environmental resource management and cultural interpretation.

Economic pressure can also result in farmlands being taken out of production and converted to residential development or other urban uses. Reducing intrusion of urban uses into agricultural areas and providing economic incentives for farmers to keep land in agricultural protection is critical to preserving and protecting agricultural land.

Goals, Objectives, and Policies | Protection of Agricultural Land

GOAL C-AR-2: Maintain agricultural production by limiting intrusion of urban development on agricultural land.

Objective C-AR-2.1: Limit intrusion of urban development in agricultural areas.

Objective C-AR-2.2: Maintain the Bodega Bay Urban Service Area Boundary and Rural Community Boundaries to protect agricultural land for continued agricultural production.

Objective C-AR-2.3: Limit extension of sewer and other urban services beyond the Bodega Bay Urban Service Area Boundary and Rural Community Boundaries.

Policy C-AR-2a: Agricultural production shall be defined as the production of food, fiber, and plant materials including, but not limited to, growing, harvesting, crop storage, milking, etc.; and the raising and maintaining of horses, donkeys, mules, and similar livestock or farm animals for the purpose of farm operations. Commercial agricultural support uses and commercial equestrian uses are not considered agricultural production uses in this context.

(NEW)

Policy C-AR-2b: The Land Extensive Agriculture and Diverse Agriculture land use categories shall be applied based on the capability of the land to produce agricultural products. (GP2020)

Policy C-AR-2c: Extension of urban services to lands in the Land Extensive Agriculture and Diverse Agriculture land use categories shall be limited to out-of-service area agreements to solve existing health and safety problems, unless allowed by the Public Facilities and Services Element or **Policy C-AR-7b** (aquaculture). (GP2020)

GOAL C-AR-3: Allow farmers to manage their operations in an efficient, economic manner with minimal conflict with non-agricultural uses.

Objective C-AR-3.1: Apply the Land Extensive Agriculture and Diverse Agriculture land use categories only to areas or parcels capable of the commercial production of food, fiber, and plant material; or the raising and maintaining of farm animals. Establish agricultural production as the highest priority use in these areas or parcels.

Policy C-AR-3a: The primary use of any parcel designated Land Extensive Agriculture or Diverse Agriculture shall be agricultural production. Residential uses in these areas shall recognize that the primary use of the land in agriculture may create slower traffic and

Commented [A8]: Include more detail here on what an out-of-service area agreement would entail. Would this have the potential to restrict agricultural use in these land-use categories?

Commented [A9]: Please be more specific on how commercial is being defined here, as agriculture is not necessarily tied to commercial production.

Commented [A10]: Please provide more information on how residential uses will recognize these primary uses. Will it be through conditions of development approval? Deed restrictions?

agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals.
(EXISTING LCP REVISED – APPENDIX E, AR-4A)

Policy C-AR-3b: Protect agricultural operations by establishing a buffer between an agricultural use on land in the [Land Extensive Agriculture](#) or [Diverse Agriculture](#) land use categories and residential development, except for caretaker, agricultural employee, and farm related units. The buffer shall occur on the parcel to be occupied by the residential development and may include one or more of the following: a physical separation of 100 to 200 feet, landscaped berm, topographic feature, substantial tree stand, water course, or similar feature. The type, design, and location of the buffer shall be based on the type, size, and characteristics of the adjacent agricultural operations so as to protect the maximum feasible amount of agricultural land. (EXISTING LCP REVISED)

Land Conservation Contracts

Many landowners on the Sonoma County coast have demonstrated a commitment to agriculture by entering into Land Conservation contracts. The California Land Conservation Act of 1965 (also known as the Williamson Act) allows counties to establish agricultural preserves and thereby give tax reductions to landowners engaged in commercial agricultural operations. About 78 parcels totaling over 18,400 acres in the Coastal Zone are under Land Conservation contracts, primarily in the Bodega Bay and Valley Ford subareas.

Policy C-AR-3c: Apply the provisions of [Appendix C, the Right to Farm Ordinance](#) to all lands designated Land Extensive Agriculture and Diverse Agriculture. (EXISTING LCP REVISED)

GOAL C-AR-4: Support agriculture as the long term viable economic use of land without selling or encumbering the farmland as collateral.

Objective C-AR-4.1: Continue participation in the Land Conservation Act and Farmland Security Zone programs.

Objective C-AR-4.2: Formulate programs and evaluate alternative funding sources which offer financial incentives to the farm owner to reduce reliance on subdivision and sale of land to raise operating capital.

Policy C-AR-4a: Subdivision of any Land Conservation Act contracted lands shall not result in any new parcel less than 10 acres for Prime lands (formerly referred to as Type 1 preserves) or 40 acres for Non-Prime lands (formerly referred to as Type 2 preserves), or the established minimum lot size, whichever is more restrictive. Each proposed new parcel must separately meet the criteria for a new contract. (EXISTING LCP REVISED – APPENDIX E, AR-8C)

Policy C-AR-4b: Encourage and support farms and ranches, both large and small, that are seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil in order to bolster the local food economy, increase the viability of diverse family farms and improve the opportunities for farmworkers. (GP2020)

Commented [A11]: Does the County intend to have any specific policies regarding the Williamson Act? The Marin County LCP has a policy regarding the Williamson Act and agricultural worker housing shown here, below:

C-HS-7 Williamson Act Modifications to the Development Code. Allow farm owners in a designated agricultural preserve to subdivide up to 5 acres of the preserved land for sale or lease to a nonprofit organization, a city, a county, a housing authority, or a state agency in order to facilitate the development and provision of agricultural worker housing. Section 51230.2 of the Williamson Act requires that the parcel to be sold or leased must be contiguous to one or more parcels that allow residential uses and developed with existing residential, commercial, or industrial uses. The parcel to be sold or leased shall be subject to a deed restriction that limits the use of the parcel to agricultural laborer housing facilities for not less than 30 years. That deed restriction shall also require that parcel to be merged with the parcel from which it was subdivided when the parcel ceases to be used for agricultural laborer housing.

Commented [A12]: If these programs are referenced in this document, there needs to be an explanation on what they are.

Commented [A13]: Please provide an explanation here as to why minimum parcel size for prime lands would be smaller than for non-prime lands. It seems like it would be preferred to not allow prime land subdivided to smaller sections than non-prime lands.

Commented [A14]: Are there prime lands in the Sonoma Coastal Zone? There should be a discussion of Prime and Non-prime agricultural lands and how they apply to Sonoma in this document. Prime lands should be indicated on maps if they are used here.

Commented [A15]: Consider here including a line about increasing resilience to climate change

4.3 AGRICULTURAL SUPPORT USES

Agricultural support uses include agricultural processing and agricultural services, and agricultural visitor-serving uses (or agricultural tourism). This Agricultural Resources Element includes policies that promote the County's coastal agricultural industry by allowing limited visitor-serving uses that are directly related to agricultural production in the Coastal Zone.

4.3.1 Agricultural Processing and Agricultural Services

Agricultural processing is the act of changing an agricultural product from its natural state to a different form, including bottling, canning, packaging, and storing agricultural products (e.g., grapes to wine, apples to juice or sauce, etc.). Agricultural services include the maintenance and repair of farm machinery and equipment, veterinary clinics, custom farming services, agricultural waste handling and disposal, and other similar related services.

The determination of which support uses belong on agricultural lands in the Coastal Zone involves their connection to agriculture; potential for conflicts; the size, scale, and adaptability of the use; and the amount of land lost to farming. Policies are needed to permit agricultural support uses without adversely affecting production of agricultural products in the area and impacting community character. Policies for agricultural support uses should also balance the need for such uses with the continued preservation of the rural character of the Coast, and should support agricultural products produced on the Sonoma County coast over those produced elsewhere.

4.3.2 Agricultural Visitor-Serving Uses (Agricultural Tourism)

Agricultural visitor-serving uses, or agricultural tourism, are any visitor-serving uses on agricultural land that supports and enhances agricultural activity. Examples of these uses are farmstays, farmstands, and retail sales of products grown onsite. Wineries and tasting rooms are not considered visitor-serving uses and are instead considered agricultural processing or commercial activity, respectively. Special events are also limited to commercial areas of the Coastal Zone.

Tourism is a major economic driver in the Coastal Zone and agricultural tourism could support the Coastal agricultural industry economically, provided that agricultural tourism directly promotes the sale of agricultural products grown onsite. Agriculture is a higher-priority land use than visitor-serving uses of any kind; therefore, agricultural visitor-serving uses must supplement agricultural production, and not displace it, and the economic benefits of agricultural tourism must be balanced against existing constraints such as limited public services, water supply, sensitive resource areas, and the potential impacts of increased traffic on public safety.

Vineyards and Wineries in the Coastal Zone

Vineyards dominate the agricultural landscape of the inland areas of the County, but grape production and processing in the Coastal Zone is limited due to the Coastal Zone's thin soils, steep slopes, and lack of year-round water supply. Vineyards require a Coastal Development permit, and are therefore more restricted than in the inland area. There are no vineyards currently planted or proposed in the Coastal Zone.

Wineries are not considered agricultural support uses and proposals for new wineries are evaluated on the basis of the policies in this section. As of 2017, there are no wineries located in the Coastal Zone, although two are located within a mile of the inland Coastal Zone boundary.

Commented [A16]: We would recommend being explicit on whether vineyards and wineries are considered Ag or non-Ag. In addition, if the county wants cannabis to be considered non-ag, consider including a policy on that as well.

In the Land Extensive Agricultural areas, some conflicts between visitors and agricultural practices would be less severe due to the larger lot sizes that serve to separate the activities. In these areas, small scale visitor-serving uses that are directly related to the agricultural operation, such as farmstays, hosted rentals, farm stands, farm retail sales, and some outdoor recreational uses, may be compatible with the agricultural operation. These small-scale uses may promote the agricultural activity and provide a secondary income source for the farmer or rancher without hindering the primary agricultural use of the land.

Goals, Objectives, and Policies | Agricultural Support Uses

GOAL C-AR-5: Facilitate agricultural production by allowing related agricultural support uses (agricultural processing and agricultural services), to be conveniently and accessibly located in agricultural production areas when related to the primary agricultural production in the area.

Objective C-AR-5.1: Facilitate local agricultural production by allowing with a use permit agricultural processing on agricultural lands where appropriate and compatible and consistent with California Coastal Act priorities.

Objective C-AR-5.2: Facilitate local agricultural production by allowing with a use permit on agricultural lands limited agricultural support uses which support local agricultural activities and are not detrimental to the long-term agricultural uses in the area.

Objective C-AR-5.3: Ensure that agricultural support uses allowed on agricultural lands are only allowed when demonstrated to be necessary for, and proportional to, agricultural production on-site.

Policy C-AR-5a: Agricultural Resources Element **Table C-AR-3** establishes the agricultural uses allowed and planning permits required on agricultural lands in the Coastal Zone. (NEW)

Policy C-AR-5b: Storage facilities shall be permitted for agricultural products grown, prepared, or processed on-site. Facilities shall be sized to accommodate but not exceed the agricultural operation, and shall be designed to be compatible with and not adversely impact surrounding land uses. (EXISTING LCP REVISED – APPENDIX E, AR-5F)

Table C-AR-3: Agricultural Uses and Support Uses Allowed and Permit Thresholds

Use	Planning Permits Required	Permit Type
Allowed		
Grazing, Row Crops	Principally Permitted "By-Right"	none required
Vineyard, Orchard	Principally Permitted Coastal Permit	Discretionary
Agricultural Processing (e.g., creamery, winery [no tasting or events])	Use Permit Coastal Permit See Policy C-AR-54c below	Discretionary2
Agricultural Services	Use Permit	Discretionary2

Commented [A17]: This term needs to be defined in the glossary. While the glossary defines Agricultural Support Services, it does not define Agricultural Support Uses, or Agricultural uses. If "agricultural support uses" is the same as one of the defined terms, please use that term instead of this variation on the term. Generally, when a policy depends on specific words or phrases and definitions, they need to be included in the glossary, used in the form defined in that glossary, and reviewed for Coastal Act consistency.

Commented [A18]: Please provide an explanation as to the purpose of this table, as it is not clear in this chapter.

Commented [A19]: Please provide more detail on what discretionary means in this context.

Use	Planning Permits Required	Permit Type
(e.g., farm equipment, veterinarian)	Coastal Permit	
Small-Scale Farm Retail Sales	Coastal Permit	Discretionary
Farm Stand	Principally Permitted "By-Right"	none required
Non Agricultural Uses		
Tasting Rooms	Discretionary, Only allowed in commercial zones	
Other Visitor-Serving Use (e.g., agricultural promotional event, restaurant)	Discretionary, Only allowed in commercial zones	
Notes: ¹ VESCO permit also required from Sonoma County Agricultural Commissioner ² May be appealable to California Coastal Commission if within their jurisdiction or appealable area per map on file at Permit Sonoma		

Policy C-AR-5c: Only allow agricultural support uses, including agricultural processing and agricultural services uses that clearly support local agricultural production consistent with the specific requirements of each of the two agricultural land use categories. Ensure that such uses are clearly subordinate to on-site agricultural production and do not adversely affect agricultural production in the area. The following criteria shall be used for approval of agricultural processing or service uses:

- (1) The use is subordinate to on-site agricultural production based on the following considerations:
 - a. The portion of the site devoted to the agricultural support use in relation to agricultural production.
 - b. The size and number of structures needed for the agricultural support use in relation to agricultural production.
 - c. The relative number of employees devoted to the agricultural support use in comparison to that needed for agricultural production.
 - d. The types of agricultural production on the site in the past and present.
 - e. The potential for the agricultural support use to be converted to non-agricultural uses due to its location and access.
- (2) The use will not require the extension of sewer or water.
- (3) The use would not convert agricultural lands inconsistent with Coastal Act Sections 30241 and 30242.
- (4) The use does not substantially detract from agricultural production on-site.

Commented [A20]: We would recommend adding more detail as to the portion/proportion of a site that could be devoted to ag. support uses as compared to ag uses themselves.

- (5) The use does not create a concentration of commercial uses in the immediate area.
- (6) The use is compatible with and does not adversely impact surrounding residential neighborhoods. (EXISTING LCP REVISED – APPENDIX E, AR-5D)

Policy C-AR-5d: Even if related to surrounding agricultural activities Local concentrations of agricultural services or agricultural processing (e.g., cheese, wineries), that are detrimental to the primary use of the land for the agricultural production, rural character, traffic, or water resources shall be avoided. even if related to surrounding agricultural activities. (EXISTING LCP REVISED – APPENDIX E, AR-5E)

4.4 FARMWORKER HOUSING

Successful agricultural production requires adequate numbers of seasonal and full-time farmworkers. A limited supply of expensive housing creates a serious barrier to attracting and retaining these essential workers. Providing adequate housing for seasonal employees, permanent employees, and the families of permanent employees is critical to the success of agriculture in the Coastal Zone. While housing is generally a low-priority use in the Coastal Zone, farmworker housing is integral to agriculture and shares the same high priority as agriculture.

Goals, Objectives, and Policies | Farmworker Housing

GOAL C-AR-6: Support efficient management of local agricultural production activities by the development of adequate amounts of housing for farmworkers and family members engaged in the farming operation in agricultural areas.

Objective C-AR-6.1: Encourage farm operators to provide suitable on-site housing for seasonal and agricultural farmworkers and family members engaged in farming operations to maintain agricultural production activities, in accordance with allowable residential density.

Policy C-AR-6a: Allow up to four residential units per agricultural parcel, consistent with the maximum residential density, for the purpose of housing family members and agricultural employees. All housing units should be grouped together on the parcel to maximize environmental protections and promote efficient agricultural operations. (EXISTING LCP REVISED)

Policy C-AR-6b: Housing for seasonal workers as needed to serve the agricultural industries of the area shall be permitted if it does not necessitate the extension of sewer or water service inconsistent with the Public Facilities and Services Element. This housing may be constructed to the minimum standards acceptable under State law and as allowed under the Public Facilities and Services Element. (GP2020)

4.5 MARINE AQUACULTURE AND FISHING

Marine aquaculture and the commercial fishing industry produce a food source and have needs similar to land-based agricultural operations. Policies for commercial fishing and marine aquaculture

Commented [A21]: Is the purpose of this policy to state that agricultural production takes priority over other agricultural activities? What specifically about wine and cheese production has a detrimental effect on ag. production, rural character, or water resources?

Commented [A22]: There needs to be a policy that provides more detail on what is allowable in farmworker housing/agricultural dwelling units. The Marin County certified LUP states:

C-AG-5 Agricultural Dwelling Units (Farmhouses, Intergenerational Housing, and Agricultural Worker Housing). Support the preservation of family farms by facilitating multigenerational operation and succession.

A. Agricultural dwelling units may be permitted on C-APZ lands subject to the policies below, as well as any applicable requirement in C-AG-6, 7, 8, and 9. Agricultural dwelling units must be owned by a farmer or operator actively and directly engaged in agricultural use of the property. No more than a combined total of 7,000 sq ft (plus 540 square feet of garage space and 500 square feet of office space in the farmhouse used in connection with the agricultural operation) may be permitted as an agricultural dwelling per farm tract, defined in this LCP as all contiguous legal lots under common ownership within a C-APZ zoning district, whether in a single farmhouse or in a combination of a farmhouse and intergenerational homes(s). Intergenerational farm homes may only be occupied by persons authorized by the farm owner or operator, shall not be divided from the rest of the legal lot, and shall be consistent with the standards of C-AG-7 and the building size limitations of C-AG-9. Such intergenerational homes shall not be subject to the requirement for an Agricultural Production and Stewardship Plan (C-AG-8), or permanent agricultural conservation easement (C-AG-7). A density of 60 acres per unit shall be required for each farmhouse and intergenerational house (i.e. at least 60 acres for a farmhouse, 120 acres for a farmhouse and an intergenerational house, and 180 acres required for a farmhouse and two intergenerational homes), including any existing homes. The reviewing authority shall consider all contiguous properties under the same ownership to achieve the requirements of the LCP. No Use Permit shall be required for the first intergenerational home on a qualifying farm tract, but a Use Permit shall be required for a second intergenerational home. No more ...

Commented [A23]: There needs to be a distinction set here between fishing and mariculture/aquaculture. While fishing is a coastal dependent use, it may not be considered agriculture.

support and processing facilities are similar to those for other forms of agriculture while recognizing the unique needs of these uses.

Goals, Objectives, and Policies | Marine Aquaculture and Fishing

Goal C-AR-7: Provide for the raising, harvesting and production of fish in the same manner as the harvesting and production of agricultural products.

Objective C-AR-7.1: Allow aquaculture and its related facilities and activities in agricultural areas.

Objective C-AR-7.2: Provide opportunities for development of support facilities for the fishing industry on appropriate lands.

Objective C-AR-7.3: Promote products of the fishing industry in the same manner as agricultural products.

Policy C-AR-7a: Outdoor aquaculture shall be permitted in the same manner as other agricultural production uses. (GP2020)

Policy C-AR-7b: Support facilities for the fishing industry, including but not limited to equipment storage, processing facilities, and canneries may be allowed on lands designated for agricultural land use adjacent to the Urban Service Boundary of Bodega Bay. If the facility or use requires urban services, extension of such services on lands adjacent to the Urban Service Boundary may only be permitted for that purpose. Ensure that such uses are clearly subordinate to on-site aquaculture production and do not adversely affect agricultural production in the area. The following criteria shall be used for approval of aquaculture processing or service uses:

- (1) The use is subordinate to on-site aquaculture and agriculture production based on the following considerations:
 - a. The portion of the site devoted to the support use in relation to production.
 - b. The size and number of structures needed for the support use in relation to production.
 - c. The relative number of employees devoted to the support use in comparison to that needed for production.
 - d. The uses on the site in the past and present.
 - e. The potential for the support use to be converted to non-agricultural uses due to its location and access.

- (2) The use would not convert agricultural lands inconsistent with Coastal Act Sections 30241 and 30242.
- (3) The use does not substantially detract from agricultural production on-site.
- (4) The use does not create a concentration of commercial uses in the immediate area.
- (5) The use is compatible with and does not adversely impact surrounding residential neighborhoods. (NEW)

5 IMPLEMENTATION PROGRAMS

5.1 AGRICULTURAL RESOURCE IMPLEMENTATION PROGRAMS

Program C-AR-1: Update the agricultural zoning districts to be consistent with the policies of the Agricultural Resources Element.

5.2 OTHER INITIATIVES

Other Initiative C-AR-1: Encourage the Sonoma County Agricultural Preservation and Open Space District and other agencies to sponsor a variety of ongoing educational programs that assist the farmer in financial planning and to provide technical assistance where appropriate. (GP2020)

Other Initiative C-AR-2: Work with public agencies and non-profit organizations to acquire development rights, easements, fee title or other interests in land in order to protect agricultural lands. (NEW)

Other Initiative C-AR-3: Work with the California Department of Parks and Recreation to take the following actions regarding managing agricultural land in State Park Units:

- (1) Prepare a long-term plan for managing grazing lands and use the plan as a basis for grazing leases;
- (2) Retain in agricultural production land not needed for public use that is compatible with and protective of the resource values and recreation uses;
- (3) Grant long-term grazing leases which are protective of sensitive habitats and include incentives to improve range quality; and
- (4) Monitor grazing and improve range management practices in cooperation with ranchers and the Natural Resource Conservation Service. (EXISTING LCP REVISED)

Other Initiative C-AR-4: Work with California State Parks and Sonoma County Regional Parks, Sonoma County Agricultural Preservation and Open Space District, and other government and non-profit partners to avoid conversion of agricultural land to incompatible uses, and to address impacts to and protection of agricultural lands. (NEW)

Other Initiative C-AR-5: Work with local Resource Conservation Districts and agricultural associations to encourage and promote sustainable agricultural and land management practices that conserve energy and protect water and soil, reduce pesticide use, and supports locally grown and processed agricultural products, to help ensure the long-term use and conservation of coastal resources. (EXISTING LCP REVISED)

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Figure C-AR-1a: Agricultural Resources – Subarea 1 – The Sea Ranch North
(11x17)

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Figure C-AR-1b: Agricultural Resources – Subarea 2 – The Sea Ranch South
(11x17)

DRAFT

Figure C-AR-1c. Agricultural Resources – Subarea 3 – Stewarts Point/Horseshoe Cove
(11x17)

DRAFT

Figure C-AR-1d. Agricultural Resources – Subarea 4 – Salt Point
(11x17)

DRAFT

Figure C-AR-1e. Agricultural Resources – Subarea 5 – Timber Cove/Fort Ross
(11x17)

DRAFT

Figure C-AR-1f. Agricultural Resources – Subarea 6 – Highcliffs/Muniz-Jenner
(11x17)

DRAFT

Figure C-AR-1g. Agricultural Resources – Subarea 7 – Duncans Mills
(11x17)

DRAFT

Figure C-AR-1h. Agricultural Resources – Subarea 8 – Pacific View/Willow Creek
(11x17)

DRAFT

Figure C-AR-1i. Agricultural Resources – Subarea 9 – State Beach/Bodega Bay
(11x17)

DRAFT

Figure C-AR-1j. Agricultural Resources – Subarea 9 – Bodega Bay Vicinity
(11x17)

DRAFT

Figure C-AR-1k. Agricultural Resources – Subarea 10 – Valley Ford
(11x17)

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CALIFORNIA COASTAL COMMISSION

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October 1, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Open Space and Resource Conservation Chapter and Appendix E

Dear Ms. Condon and Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter Four: Open Space and Resource Conservation.

The list below is intended as a complement to the in-line edits and comments provided for the Open Space and Resource Conservation chapter as well as Appendix E: "Natural Resources," but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter and appendix themselves should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. Please also note that we have referred this chapter to our ecologist and anticipate additional feedback to follow. We look forward to discussing the outlined issues in more detail during staff-to-staff coordination meetings with Sonoma County staff:

1. **Organization.** In Section 3: "Biotic Resources Policy," each section should be separated by protected habitat type, followed by each of the corresponding policies for that habitat type. Each habitat type subsection should include policies that:
 1. Define the habitat type;
 2. Establish permitted uses within the habitat areas;
 3. Outline the required buffers for that habitat type and how they are defined;
 4. If there are buffer reductions/increases provided for and under what circumstances; and
 5. Establish permitted uses within the buffer areas, followed by any other policies that pertain to that habitat area. For example, a set of policies on wetlands could include:
 1. Wetland Definition
 2. Wetland Delineation parameters and process
 3. Permitted uses in wetlands

4. Wetland buffer zone requirements
 5. Permitted uses within wetland buffer zones
 6. Development standards in wetlands and wetland buffer zones
 7. Wetland condition
 8. Wetland protection
 9. Any other policies pertaining to wetlands
2. **Policy Content in Appendix E.** Generally, the appendix should contain supplemental information rather than actionable policy language. Much of the content of Appendix E: “Natural Resources” should be included in the body of the LUP as policies specific to each habitat type as explained in the previous comment. This includes guidance contained in E-2, “Biological Resource Assessment”; E-3 “Criteria for Establishing Buffer Areas”; E-4 “Technical Criteria for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas”; and E-5 “Habitat Protection Guidelines”.
3. **ESHA and Wetland Definitions.** This chapter should include a definition of ESHA consistent with Coastal Act §30107.5 as well as a definition of wetland consistent with Coastal Act §30121 and §13577(b) of the Code of Regulations. In addition, the description of wetlands should explicitly state that the LCP, consistent with the Coastal Act, adheres to the single parameter wetland delineations, and should spell out the three wetland indicators (hydrophytic vegetation, hydric soils, and/or saturated substrate).
4. **Mitigation and Restoration Policies.** The LUP should contain specific mitigation and restoration policies for any permitted impacts to ESHA, wetlands, and riparian habitat areas. While some of this language is included in Appendix E-5, as stated previously, these should be incorporated as policies in the body of the chapter. Beyond incorporating language from the appendix into the chapter’s policies, the LUP needs to include a policy that establishes required mitigation ratios for each habitat type. The Commission’s standard mitigation ratios are as follows:
- 10:1 for native tree replacement;
 - 4:1 for wetlands;
 - 3:1 for riparian habitats;
 - 3:1 for other habitats that support state or federal rare, threatened, or endangered species, species of special concern, or CNPS 1b or 2 listed plants;
 - 2:1 for coastal sage scrub not occupied by listed species; and
 - 1:1 for temporary impacts on any of the above habitat types.
5. **Applicable Coastal Act Policies.** This chapter should reference the relevant Coastal Act policies in their entirety, including Coastal Act Sections 30230, 30231, 30233, 30236, and 30240.

6. **Policies Removed from Previous Versions.** Since the last time Commission staff reviewed the draft LUP, some important policies and objectives have been omitted. The County should consider adding these policies and objectives back in as they provide significant coastal resource protections grounded in Coastal Act consistency. These are indicated in the in-line edits and listed here, below:

Objective C-OSRC-6.6: Establish standards and programs to protect native trees and plant communities.

Objective C-OSRC-6.7: Support the use of native plant species and the removal of invasive exotic plant species.

Objective C-OSRC-6.8: Encourage voluntary efforts to restore and enhance biotic habitat.

Objective C-OSRC-6.9: Preserve and restore major wetlands (including marshes).

Objective C-OSRC-6.10: Promote production of native marine and shoreline plant and animal habitats.

Objective C-OSRC-6.11: Designate all streams shown on maps created by USGS in the National Hydrography dataset as Riparian Corridors, and establish streamside conservation areas along these designated corridors.

Policy C-OSRC-8h: Carry out the following activities to preserve Chinook and Coho Salmon Habitat (Anadromous Fish Streams):

- 1. In an Anadromous Fish Stream, maintain flow levels 1.5 times the minimum necessary for use of the stream as an anadromous fish spawning area.*
- 2. All stream diversions shall be stopped when the streamflow in an Anadromous Fish Stream falls below the minimum flow standard and until the streamflow returns to levels above the minimum flow standard.*
- 3. Allow and encourage maintenance of summer base flow in an Anadromous Fish Stream to ensure the survival of fish in all life cycle phases.*

Policy C-OSRC-XX: Work with the Sonoma County Water Agency and other entities to identify all streams with “bed-and-bank” channels and consider Riparian Corridor designation for all such streams.

Program C-OSRC-8o: Continue to actively participate in the FishNet4C program and work cooperatively with participating agencies to implement recommendations to improve and restore aquatic habitat for listed anadromous fish species and other fishery resources. **(GP2020)**

Program C-OSRC-8p: In coordination with resource agencies, landowners, and the affected public, regularly review Riparian Corridor designations; ephemeral drainage; the requests, approvals, and required mitigation for setback reductions; any cumulative effect of the approved reductions; and other protection issues and, if warranted,

develop recommendations for County policies that may be needed to ensure appropriate protection of Riparian Corridors. (GP2020)

Program C-OSRC-8q: *In coordination with resource agencies, landowners, and the affected public, conduct a comprehensive study of Riparian Corridors in grazing areas and, if warranted, develop recommendations for County policies that may be needed to ensure appropriate protection of such corridors. The study should consider the need for policies directing the development of livestock watering areas away from Riparian Corridors and the use of special range management practices, including fencing, which protects Riparian Corridors. (GP2020 Revised) (Existing LCP Revised: Recommendations 14-15 on page 29 and Recommendation 15 on page 55)*

7. **Additional Recommended Policies.** Per Commission guidance on LCP updates for natural resource chapters, we have identified a series of policies we recommend incorporating, including:

- A policy that 1) establishes how policies are to be applied in situations with more than one habitat type and 2) states that ESHA policies apply to all categories of ESHA, except where modified by more habitat-specific policies;
- Measures to address landscaping and vegetation clearance for fire protection purposes to avoid and minimize impacts to ESHA;
- Mitigation measures for any resource-dependent or other allowed uses in ESHA, including mitigation ratios for unavoidable loss of ESHAs;
- Provisions addressing climate change and sea level rise effects on ESHA;
- Measures to address beach grooming, consistent with the protection of sensitive species (e.g., grunion and western snowy plover);
- Tree trimming and removal policies including to ensure the protection of bird nesting habitat protected by the Migratory Bird Treaty Act and the long-term protection of breeding, roosting, and nesting habitat of state and federally listed bird species, California bird species of special concern, and bird species that play an especially valuable role in the ecosystem
- Requiring that construction projects located in close proximity to habitats that support sensitive birds or other sensitive wildlife species follow noise impact precautions.

Again, we thank you for your efforts to date on the LUP update, and we look forward to continued coordination to this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Open Space and Resource Conservation Element:

Table of Contents

Open Space and Resource Conservation Element	3
1 Introduction	3
1.1 Purpose.....	3
1.2 Scope and Organization	4
2 Scenic and Visual Resources Policy	4
2.1 Additional Design Guidelines and Standards	4
2.2 Scenic and Visual Resources	4
Scenic Landscape Units	5
Vista Points.....	5
Scenic Corridors	6
2.3 Outdoor Lighting.....	8
2.4 Community Character and Design.....	9
Urban Service Areas.....	9
Rural Communities	10
Landforms	11
Vegetation.....	12
Community Character and Design Policy	12
3 Biotic Resources Policy.....	13
3.1 Background	13
California Coastal Act	14
Biotic Resources of the Coastal Zone.....	14
3.2 Biotic Resource Protections.....	14
Streams and Riparian Corridors	15
Wetlands.....	16
Marine Habitats.....	17

Terrestrial Habitats.....	18
3.3 Environmentally Sensitive Habitat	18
3.4 Streams and Riparian Vegetation	21
3.5 Wetlands	23
3.6 Marine Habitats	25
3.7 Terrestrial Habitats.....	27
4 Commercial Fishing and Support Facilities Policy	30
4.1 Background	30
California Coastal Act	30
Climate Change	30
Offshore Marine Protected Areas.....	30
Oil Exploration and Development	31
Bodega Bay and Harbor.....	31
Bodega Harbor Maintenance Dredging	32
In 2017 the Corps selected the	33
Marine Debris.....	33
5 Soil Resources policy.....	36
5.1 Agricultural and Timber Soils	36
5.2 Soil Erosion	36
6 Timber Resources Policy	38
6.1 Background	38
Timberland Resources.....	38
Timberland Regulations.....	39
Timberland Environmental Impacts	40
7 Mineral Resources Policy	41
8 Energy Resources Policy.....	42
8.1 Background	42
Climate Change	42

8.2 Energy Conservation and Demand Reduction43

8.3 Energy Production and Supply44

9 Air Resources Policy45

10 Implementation Programs.....46

10.1 Open Space and Resource Conservation Programs46

10.2 Other Initiatives48

11 References49

Open Space and Resource Conservation Element

I INTRODUCTION

I.1 PURPOSE

State law recognizes that open space land is a limited and valuable resource which must be conserved wherever possible. The Open Space and Resource Conservation (OSRC) Element of the Local Coastal Plan must address open space for the preservation of natural resources; for the managed production of resources; for outdoor recreation; for public health and safety; and for the preservation of archaeological, historical, and cultural resources.

The purpose of the Open Space and Resource Conservation Element is to preserve the natural and scenic resources which contribute to the general welfare and quality of life for the residents of the Sonoma County coast and to the maintenance of its tourism industry. This Element provides the guidelines for making necessary consistency findings and includes an implementation program, as required by law.

1.2 SCOPE AND ORGANIZATION

The OSRC Element contains a policy framework for the preservation of open space and conservation of natural resources and an Open Space Map designating lands subject to various policies.

The OSRC Element classifies nine types of open space and resource conservation:

- Scenic and Visual Resources
- Biotic Resources
- Commercial Fishing Operations
- Soil Resources
- Timber Resources
- Mineral Resources
- Energy Resources
- Air Resources
- Archaeological and Historical Resources

The OSRC Element establishes goals, objectives, and policies to protect and sustainably manage Sonoma County's natural and cultural coastal resources. Programs needed to implement proposed policies are also identified. In addition, the Element identifies ongoing or potential future County initiatives, referred to as Other Initiatives, which support sound resource management and planning, and promote inter-agency and community collaboration.

2 SCENIC AND VISUAL RESOURCES POLICY

The Sonoma County coast is beautiful, rugged, and varied. A typical coastal cross-section west to east would show ocean with a rocky intertidal zone, steep vertical bluff, coastal terrace, hillside, and ridge. Major landscape features include the Gualala and Russian rivers, numerous creeks and gullies as associated sensitive habitats, and coastal villages and independent subdivisions.

The beauty and accessibility of the Coast have made it a heavily visited tourist and recreational area. Sightseeing and outdoor recreation are primary activities drawing many visitors to the coast. The goal of the Scenic and Visual Resources section is to prevent the blocking or degradation of scenic views and to assure that development is compatible with the existing natural and man-made landscapes.

2.1 ADDITIONAL DESIGN GUIDELINES AND STANDARDS

Design guidelines and standards specific to the communities of The Sea Ranch, Timber Cove, Bodega Harbour, Taylor Tract, and Sereno del Mar have been adopted. Many community design guidelines are enforced through local Design Review Committees, however, in most cases changes to the local design standards must be approved by the Sonoma County Design Review Committee and may require amendment to the Local Coastal Program. These community-specific Design Guidelines are to be used in addition to the Coastal Design Guidelines. In the case of conflict, the most restrictive standards shall apply.

2.2 SCENIC AND VISUAL RESOURCES

The scenic and visual resources component of the Open Space and Resource Conservation Element includes three categories of Scenic Resource Areas: 1) Scenic Landscape Units, including Major Views; 2) Vista Points; and 3) Scenic Highway Corridors.

Scenic Landscape Units

A Scenic Landscape Unit is a landscape of special scenic importance in Sonoma County which provides important visual relief from urban densities. The Coastal Zone is an exceptionally attractive landscape that has benefited from almost 50 years of protection and controlled development. The entire Coastal Zone outside of developed communities is designated as a Scenic Landscape Unit.

Major Views

Major Views are long views of unique visual interest, focus, or variety. Major Views are located throughout the Coastal Zone and include islands, rock headlands, coves, lagoons, estuaries, rivers, expansive beaches, white water, coastal hills, and historic settings. Refer to Figures C-OSRC-1a-k for locations of major views.

Vista Points

Vista Points differ from Major Views as they include roadside areas suitable for parking. Because a Vista Point provides an opportunity for the public to stop and enjoy the view for longer periods of time, a Vista Point is more visually sensitive than a Major View that lacks parking or trail access. Designated Vista Points shall be developed with safe ingress and egress, parking areas, interpretive signs, and restrooms where these facilities do not have an adverse impact on Environmentally Sensitive Habitat Areas, or on any other coastal resource. Vista Points are located three SubAreas of the Coast (# of Vista Points per SubArea) - High Cliffs/Muniz/Jenner (2), Pacific View/Willow Creek (2), and State Beach/Bodega Bay (1) (Figures C-OSRC-1f, C-OSRC-1h, and C-OSRC-1i, respectively).

GOAL C-OSRC-1: Retain the largely open, scenic character of Scenic Landscape Units and views from Vista Points.

Objective C-OSRC-1.1: Retain a rural, scenic character in Scenic Landscape Units with very low intensities of development.

Objective C-OSRC-1.2: Protect the ridges and crests of hills in Scenic Landscape Units and views from Vista Points from the silhouetting of structures against the skyline.

Objective C-OSRC-1.3: Protect hills and ridges in Scenic Landscape Units and views from Vista Points from visible cuts, fills, and vegetation removal.

The following policies, in addition to those of the Land Use Element, shall be used to achieve these objectives:

Policy C-OSRC-1a: Apply the Scenic Resources Combining Zoning District to the entire Coastal Zone. (GP2020 REVISED)

Policy C-OSRC-1b: Development which will significantly degrade the scenic qualities of Scenic Landscape Units and views and from Vista Points shall be prohibited. Allow an exception for transportation or public safety facilities where no feasible alternatives to the project can be identified, project impact is reduced to the maximum extent feasible, and an

Commented [A1]: Please include a separate policy to complement this one that mirrors the language in Coastal Act Section 30251 to include: 1. Visual compatibility with the character of the area 2. Where feasible to restore or enhance visual quality in already degraded areas.

opportunity is identified to restore or improve an existing view that will fully mitigate the project impact. (EXISTING LCP REVISED)

Policy C-OSRC-1c: Development (including buildings, structures, fences, paved areas, signs, and landscaping) shall be prohibited from obstructing views of the coastline from coastal roads, bikeways, Vista Points, recreation areas, and beaches. Allow an exception for transportation or public safety facilities where no feasible alternatives to the project can be identified, project impact is reduced to the maximum extent feasible, and an opportunity is identified to restore or improve an existing view that will fully mitigate the project impact. (EXISTING LCP REVISED)

Policy C-OSRC-1d: Residential density in Scenic Landscape Units shall be one unit per 10 acres or greater. (GP2020 REVISED)

Policy C-OSRC-1e: Commercial or industrial uses in Scenic Landscape Units, other than those which are permitted by the agricultural or resource land use categories, is prohibited. (GP2020 REVISED)

Policy C-OSRC-1f: Development within Scenic Landscape Units, Major Views, and views from Vista Points shall be required to meet the **Scenic View Guidelines** in addition to all other applicable design guidelines. In the case of conflict, the most restrictive design standards shall apply. (GP2020 / EXISTING LCP REVISED)

Policy C-OSRC-1g: The following standards shall be used in addition to those of **Policy C-OSRC-1f** for new subdivisions within Scenic Landscape Units, other Major Views, and views from Vista Points:

- (1) All maps must designate building envelopes ~~that they are to be~~ located in the least visually sensitive areas, and with height limitations as a note on the map if necessary to adequately mitigate visual impacts.
- (2) Lots shall be clustered to reduce visual impacts where consistent with the Land Use Element.
- (3) Building sites and roads are to be constructed to preserve **significant** tree stands and significant oak trees.
- (4) Driveways and access roads shall be hidden from view from public roads and other public use areas where practical. (GP2020 / EXISTING LCP REVISED)

Commented [A2]: Please provide the Scenic View Guidelines for review of Coastal Act consistency. We would recommend putting the scenic view guidelines in the body of this LUP so that the policy is not referencing an external document.

Commented [A3]: "Significant Tree Stands" needs to be defined.

Scenic Corridors

The primary impression of any area on the Coast comes from what is seen while driving, cycling, or hiking along a roadway. One of the most effective methods of protecting visual resources is to protect scenic corridors along a system of scenic roads. Designated Scenic Corridors on the Sonoma Coast are State Highway 1, Stewarts Point-Skaggs Springs Road, State Highway 116, Coleman Valley Road,

Petaluma-Valley Ford Road, Bodega Highway, Fort Ross Road, Meyers Grade/Seaview Road, Bay Hill Road, and a paved portion of Willow Creek Road. Along Scenic Corridors, all development shall be set back 30 percent of the depth of the lot to a maximum of 200 feet.

Scenic View Easements exist along Highway 1 at The Sea Ranch and are different from the designated Scenic Corridors. A Scenic View Easement is an easement at a specific location west of the highway established for the purpose of allowing ongoing management and removal of trees in order to restore and preserve scenic views from State Highway 1 (**Appendix D-1**).

GOAL C-OSRC-2: Preserve roadside landscapes which have a high visual quality.

Objective C-OSRC-2.1: Provide visual links to major recreation areas, give access to historic areas, or serve as scenic entranceways to communities.

Objective C-OSRC-2.2: Ensure future land uses, development, and roadway construction are compatible with preserving scenic values along designated Scenic Corridors.

The following policies shall be used to achieve these objectives:

Policy C-OSRC-2a: Continue to apply the Scenic Resources Combining Zoning District to those portions of properties within Scenic Corridor setbacks. (GP2020 REVISED)

Policy C-OSRC-2b: Continue to protect the unique scenic qualities of Highway 116 as outlined in the September 1988 *116 Scenic Highway Corridor Study*. (GP2020)

Policy C-OSRC-2c: Outside of rural communities and urban service areas, the minimum setback of a new structure from a Scenic Corridor shall be 30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the road. (EXISTING LCP REVISED)

Policy C-OSRC-2d: For development on parcels located both within a Scenic Landscape Unit and adjacent to a Scenic Corridor, the more restrictive siting and setback policies shall be applied to preserve visual quality. (GP2020)

Policy C-OSRC-2e: Prohibit billboards or offsite signs along Scenic Corridors. (GP2020 REVISED)

Policy C-OSRC-2f: Public works projects shall be designed to minimize damage and removal of trees along Scenic Corridors except where necessary to maintain Scenic View Easements in The Sea Ranch. Where trees must be removed along highways, replanting programs shall be designed so as to accommodate ultimate planned highway improvements. Replanting and revegetation shall be required following grading and road cuts. (GP2020)

2.3 OUTDOOR LIGHTING

Night time views of both the landscape and sky can be significantly degraded by excessive and unnecessary levels of light which increase sky glow around urban areas, make the man-made environment prominent, and result in visual clutter at night. Appropriate light levels for varying uses should be balanced with a desire to maintain Sonoma County's rural character and preserve views of the night time skies for residents and visitors.

GOAL C-OSRC-3: Preserve and maintain views of the night time skies and visual character of urban, rural, and natural areas, while allowing for night time lighting levels appropriate to the use and location.

Objective C-OSRC-3.1: Maintain night time lighting levels at the minimum necessary to provide for security and safety of the use and users to preserve night time skies and the night time character of urban, rural, and natural areas.

Objective C-OSRC-3.2: Ensure that night time lighting for new development is designed to avoid light spillage offsite or upward into the sky.

The following policies shall be used to achieve these objectives:

Policy C-OSRC-3a: All new development projects, County projects, and signage shall be required to use light fixtures which shield the light source so that light is cast downward, and that are no more than the minimum height and power necessary to adequately light the proposed use. Illumination of signs is discouraged, and shall only be approved where illumination is maintained at the minimum level necessary for sign visibility. Internally illuminated signs are prohibited, including signs using LED or similar light sources that directly face the viewer. (GP2020 REVISED)

“Artificial night lighting also impacts biological resources. Natural patterns of darkness and light are essential to the functioning of ecosystems.

Artificial night lighting affects the natural behavior of many flora and fauna species. It can disturb development; feeding, mating, resting, migration, and other activity patterns; and hormone-regulated processes, such as internal clock mechanism.

Illuminance, the amount of light incident per unit area, is the most commonly used measurement of ecological light pollution. It is expressed in lux, the intensity of light per unit area of the source. How bright these sources appear to organisms depends on ambient conditions; in dark conditions a dim light appears very bright, whereas it could be practically invisible in daylight.”

Policy C-OSRC-3b: Continuous all night exterior lighting in rural areas shall be prohibited, unless it is demonstrated to the decision-making body that such lighting is necessary for security or operational purposes, or that it is necessary for agricultural production or processing on a seasonal basis. Where lighting is necessary for the above purposes, glare onto adjacent properties and into the night sky shall be minimized. (GP2020)

Policy C-OSRC-3c: Light levels that are in excess of lighting manufacturers' standards for specific uses and the California Outdoor Lighting Standards in Title 24 of the California Code of Regulations shall be prohibited. (GP2020)

Policy C-OSRC-3d: In evaluating proposed development, the potential impact of any proposed artificial night lighting on the coastal ecosystem should be considered using the best available science. Any Proposed artificial night lighting that is determined by the best available science to have a negative impact on coastal ecosystems shall be prohibited (NEW)

Policy C-OSRC-3e: All exterior lighting shall be Dark Sky Compliant: (e.g. Lighting shall be fully shielded, directed downward, low mounted, and use bulbs that do not exceed 700 lumens and color temperature less than 3000 Kelvin). Light trespass shall not exceed one lux at the property line when all exterior lighting is operated. Night lighting that would increase existing ambient light levels in Environmentally Sensitive Habitat Areas (ESHAs) shall be prohibited. Light fixtures shall not be located at the periphery of the property, shall not wash out structures or any portions of the project site, and shall not be directed toward other properties. (NEW)

2.4 COMMUNITY CHARACTER AND DESIGN

Land use policies of the Local Coastal Plan direct development towards Urban Service Areas, which are geographical areas where public sewer and water are available, most parcels are developed, and a variety of commercial and visitor service uses exist. Urban Service areas perform a function similar to urban growth boundaries for unincorporated communities. The Coastal Zone contains two Urban Service Areas: Bodega Bay and The Sea Ranch. Designation of Urban Service Areas also serves to carry out provisions of the Coastal Act that require new development to be focused into existing communities with adequate public facilities and services. This pattern of compact development and community-centered growth preserves open space, agriculture, and coastal resources.

The character of Coastal Zone communities is diverse, and design policies must recognize this diversity and preserve local character. The major community design issues on the Coast are preservation of coastal views and the visual quality and compatibility of new development with the natural landscape and existing development.

Urban Service Areas

The Sea Ranch. The Sea Ranch is a low-density residential community developed with shared values known as The Sea Ranch Concept that embodies the principle of living lightly on the land and developing in harmony with the natural environment. The Sea Ranch has municipal wastewater

treatment available in the northern and central areas, with the southern area being served by septic systems which are managed by The Sea Ranch Association Onsite Wastewater Management Zone. The Sea Ranch Urban Service Area encompasses all residential land use within The Sea Ranch and is shown in figures C-LU-1a and C-LU-1b.

Bodega Bay. Bodega Bay consists of a core area of visitor serving commercial uses and small homes on the east side of Bodega Bay. Across the bay is Spud Point marina, which supports a commercial fishing fleet and support services for the fishing industry. The Bodega Harbour subdivision is located south of Doran Beach and consists of newer homes and a golf course. Water and wastewater service is provided by the Bodega Bay Public Utility District. The Bodega Bay Urban Service Area encompasses these areas and is shown in Figures C-LU-1i.

Rural Communities

Stewarts Point. Stewarts Point was founded in 1857 at Fisherman's Bay by A.L. Fisk, who established a store and hotel. The community contains simple early Greek Revival buildings, including a store, hotel, one room school, and series of barns and out-buildings, which together illustrate a strong sense of a 19th century coastal town. Stewarts Point does not have community specific design guidelines.

Timber Cove. Timber Cove is a low density subdivision established in the early and middle 1960s with many lots still undeveloped. Most of the subdivision is heavily forested and the majority of the lots are east of Highway 1 and not visible from the highway. A smaller number of lots are west of Highway 1 and have a higher visual sensitivity. The Timber Cove Architectural Guidelines, are in the CC&Rs for the subdivision and applied by the Timber Cove Homes Association.

Jenner. Jenner was originally a second home development platted in 1914. The town has grown slowly over the last century, but development is constrained by restrictions on water system connections and the limited area for septic systems on the small lots. Jenner does not have community specific design guidelines, but is highly visible from Highway 1 and consideration should be given to the scale, design, and landscaping of new development.

Rancho del Paradiso. Located along the south side of the Russian River, Rancho del Paradiso is a development on small lots platted in the 1930s. New development is constrained by restrictions on water system connections and the limited area for septic systems on the small lots. The community is not highly visible from State Highway 1. Rancho del Paradiso does not have community specific design guidelines.

Bridgehaven Resort. Bridgehaven Resort is located on the south bank of the Russian River near the junction of State Highways 1 and 116, and is visible from Vista Points on Highways 1 and 116 as well as from the Russian River estuary. The resort includes summer cabins, a store and café, and a trailer park with permanent residents. The campground is no longer in use, and the trailer park is not screened from view. Additional development is severely constrained by inadequate water supply, and future modifications to existing development should include design and landscaping improvements.

Duncans Mills. Duncans Mills, a County Historic District, was a railroad depot and commercial center established in the 1880s. The western false front commercial buildings have been preserved, and several new buildings of similar design have been constructed to serve the community and visitors.

Commercial uses have been developed by private interests that continue to build in the old west theme. Duncans Mills does not have community specific design guidelines.

Sereno Del Mar. Sereno Del Mar, platted between 1970 and 1972, is a residential subdivision north of Bodega Bay. More than one-half of the 173 lots have been developed. Homes are large on large lots and are generally one to one and one-half stories high due to a 16 foot height limitation. The Sereno del Mar design guidelines are included in the CC&Rs for the subdivision and are applied by the Sereno del Mar Design Review Committee.

Carmet. Carmet is a residential subdivision of 60 lots developed in the late 1940s located south of and adjacent to Sereno Del Mar. Homes are generally one-story with flat gravel roofs and painted wood exteriors. Landscaping is suburban with lawns, flowers, and a few trees. New development should be compatible with existing homes as there is a distinct design unity to the subdivision. Carmet does not have community specific design guidelines.

Salmon Creek. Salmon Creek is a compact subdivision developed in the 1920s and 1930s. Although vacation home use still predominates, many of the dwellings house full time occupants. Homes generally have painted wood exteriors and gable roofs. Homes near the Salmon Creek lagoon are highly visible, and the design and scale of new development should be compatible with the existing character of the community as well as to the area's very sensitive natural features. Salmon Creek does not have community specific design guidelines.

Valley Ford. Valley Ford received its name from the old Indian and Spanish ford across the Estero Americano. This small, historic community has evolved over the years and has no distinct architectural theme. Styles include Greek Revival, Queen Anne, Western Falsefront, Italianate, and bungalow. Many of the existing buildings date to the 1870s and 1880s. Valley Ford does not have community specific design guidelines.

Landforms

The landforms of the Coastal Zone are classified into the following eight types: Beaches, Dunes, Bluffs, Terraces, Hillsides, Ridgelines, Wetlands, and Inland Valleys. Each landform has readily recognizable characteristics upon which recommendations for future development can be established. Beaches, Dunes, and Wetlands are addressed in more detail in Section 3, Biotic Resources.

Terraces. Coastal terraces are the broad, level areas between coastal hills and bluffs. They are generally covered with grasses and sometimes dotted with trees or divided by tree windbreaks, comprised predominantly of cypress trees. Lines are horizontal except where trees create a vertical influence and break up the open landscape. Terraces are particularly visually sensitive.

Hillsides. Coastal hillsides are the interfaces between the coastal terraces and the ridgelines. Many of Sonoma County's hillsides begin east of State Highway 1, have few trees and shrubs, and are highly visible. Other coastal hillsides are forested, particularly on the North Coast. These forested hillsides are not as visually sensitive as are terraces and non-forested hillsides. Hillsides are especially sensitive to grading activities that do not conform to natural land contours.

Ridgelines. Ridgelines are the most visually sensitive of the landforms on the Sonoma County coast. Ridgelines are often seen from great distances. The contrast between the land and the sky makes structural intrusions very obvious. The high locations of ridgelines cause any alterations to be seen

Commented [A4]: Please elaborate here as to why terraces are particularly visually sensitive.

from a wide area and may affect many viewsheds. A primary example of the sensitivity of ridgelines is the Muniz Ranch subdivision east of Russian Gulch. While driving up State Highway 1 from Russian Gulch to the high bluffs, it is apparent that the spectacular views to the east have been significantly degraded by the ridgetop development.

Inland Valleys. The two inland valleys on the Sonoma County coast are at Duncans Mills and Valley Ford. They are characterized by historic villages surrounded by agricultural land.

Vegetation

Prairie grassland is the characteristic landscape along State Highway 1, with forested areas in the eastern hills north of the Russian River. Planting of trees over the last century for windbreaks adds visual complexity to the view, but planting of non-native species can detract from the natural coastline landscape, and the planting of certain tree varieties west of State Highway 1 may block views to the coastline

A large scale vegetation management program has been implemented by The Sea Ranch Association promote and enhance native plants while controlling and removing invasive non-native plants at The Sea Ranch. This program also includes a fire fuel management to thin trees and graze sheep to reduce fuel load.

Community Character and Design Policy

GOAL C-OSRC-4: Preserve, retain, and enhance the unique character of each of the communities on the Sonoma County coast, while accommodating projected growth and housing needs.

Objective C-OSRC-4.1: Establish community character as a primary criterion for review of projects in coastal communities.

Objective C-OSRC-4.2: Protect and preserve community character by Coastal Design Guidelines which call for development that preserves existing site features, contributes to community character, sites buildings and development features so they blend in with the surrounding landscape, provides connections to surrounding development, provides opportunities for community interaction and pedestrian activity, provides attractive public views, provides safe and comfortable infrastructure and streetscape improvements for bikes and pedestrians, and maintains or increases public safety.

The following policies shall be used to achieve these objectives:

Coastal Design Guidelines

Policy C-OSRC-4a: Design review shall be required for all new development outside of Urban Service Areas and Rural Community Boundaries. The Director of Permit Sonoma may waive this requirement on parcels not visible from and east of State Highway 1. (EXISTING LCP REVISED)

Policy C-OSRC-4b: The Coastal Design Guidelines (**Appendix A-1**) shall be used for new development throughout the coast except where more restrictive community design guidelines have been adopted. (EXISTING LCP REVISED: RECOMMENDATIONS 4-25 ON PAGES 173-180)

Policy C-OSRC-4c: Existing tree windbreaks which are oriented predominantly east-west and do not block or interrupt views to the coast shall be retained; and development of new tree windbreaks which would block or interrupt views to the coast shall be discouraged. (EXISTING LCP REVISED)

Design Guidelines Specific to Coastal Communities

Policy C-OSRC-4d: New development located within Bodega Bay outside of the Bodega Bay Core Area shall be consistent with the following Bodega Bay Non-Core Design Guidelines (**Appendix A-2**) in addition to the Coastal Design Guidelines (**Appendix A-1**). In the case of conflict, these community specific guidelines shall supersede the Coast Community Design Guidelines:

- (1) The exterior of structures shall be designed to reflect the nautical character of the harbor with wooden exteriors, stained or painted white or subdued earth colors.
- (2) For heavy commercial structures, textured metal in subdued colors with proper architectural detailing and landscaping shall be encouraged to add visual interest and soften building lines. (EXISTING LCP REVISED)

Policy C-OSRC-4e: New development located within the Bodega Bay Core Area shall be consistent with the Bodega Bay Core Design Guidelines in addition to the Coastal Design Guidelines (**Appendix A-2**). (EXISTING LCP REVISED) In the case of conflict, the Bodega Bay Core Area Design Guidelines shall supersede the Coast Community Design Guidelines.

Policy C-OSRC-4f: Development shall follow applicable community-specific design guidelines for The Sea Ranch, Timber Cove, Bodega Harbour, and Sereno del Mar in addition to the Coastal Design Guidelines (**Appendix A**). In the case of conflict, community specific design guidelines shall supersede the Coastal Design Guidelines. (NEW)

3 BIOTIC RESOURCES POLICY

3.1 BACKGROUND

The Sonoma County Coast is rich in natural resources. It supports over 15 types of upland, wetland, riparian, coastal, and open water habitats that support over 30 animal species and 48 plant species that are designated as rare, threatened, or endangered and are protected under state and federal laws and regulations. Use of the coastline by shorebirds, seabirds, and waterfowl, as well as numerous terrestrial and marine mammals, reptiles, and amphibians has been documented over the last several decades. The Biotic Resources section of the Open Space and Resource Conservation Element

provides a general inventory of biological resources on the Sonoma County Coast, particularly those which are sensitive to disturbance, and identifies policies, programs, and other initiatives to guide land use and development decision-making in a manner that is consistent with the Coastal Act and community preference.

California Coastal Act

The 1976 California Coastal Act (Coastal Act) policies encourage the protection and continued biological productivity of marine resources, wetlands and other coastal waters, and environmentally sensitive areas.

[REDACTED]

The four main biotic resources categories represented within Sonoma County’s Coastal Zone are streams and riparian corridors, wetlands, marine resources, and terrestrial habitats. In addition, this section outlines goals, objectives, and policies for the protection and management of such resources. The policy discussion is organized around resource applicability and includes policies that are: generally applicable to biotic resources throughout the coastal zone; policies applicable to Environmentally Sensitive Habitat Areas (ESHAs); policies applicable to streams and riparian areas, which are a subset of ESHAs; policies applicable to marine resources; and policies applicable to terrestrial [REDACTED].

Commented [A5]: This chapter needs to be re-organized. Each section should be separated by protected habitat type/area. Each habitat type subsection should include policies that: 1. Define the habitat type; 2. Establish permitted uses within the habitat areas; 3. Outline the required buffers for that habitat type and how they are defined; 4. If there are buffer reductions/increases provided for and under what circumstances; and 5. Establish permitted uses within the buffer areas, followed by any other policies that pertain to that habitat area

Commented [A6]: In the 2016 version of this chapter, the Coastal Act policies relevant to this chapter were included – please re-add. They were Section 30107.5, 30230, 30231, 30233, 30236, 30240.

3.2 BIOTIC RESOURCE PROTECTIONS

GOAL C-OSRC-5: Protect and enhance the native habitats and diverse ecological communities on the Sonoma County Coast.

Objective C-OSRC-5.1: Identify and protect native vegetation and wildlife, particularly occurrences of special status species, wetlands, sensitive native communities, and areas of essential habitat connectivity.

Objective C-OSRC-5.2: [REDACTED]

Commented [A7]: Please indicate the timeframe to periodically update the designations. In previous versions the timeframe was every five years.

Commented [A8]: Missing objectives:

Objective C-OSRC-6.6: . Establish standards and programs to protect native trees and plant communities.

Objective C-OSRC-6.7: . Support use of native plant species and removal of invasive exotic plant species.

Objective C-OSRC-6.8: . Encourage voluntary efforts to restore and enhance biotic habitat.

Objective C-OSRC-6.9: . Preserve and restore major wetlands (including marshes).

Objective C-OSRC-6.10: Promote production of native marine and shoreline plant and animal habitats.

The County should consider adding these policies and objectives back in since they get at important coastal resource protections grounded in Coastal Act consistency.

Objective C-OSRC-5.3: Establish standards, programs, and development guidelines to protect, restore, and enhance biotic resources, including designated [REDACTED] and assure that their quality is protected and maintained.

Objective C-OSRC-5.4: Where appropriate, support regulatory efforts by other agencies to protect biotic habitats.

Objective C-OSRC-5.5: Maintain and enhance connectivity between natural habitat areas.

Objective C-OSRC-5.6: Balance the need for agricultural production, development, timber and mining operations, and other land uses with the preservation of biotic resources.

The following policies shall be used to achieve these objectives:

Policy C-OSRC-5a(1): Permit applications for development which could have an impact on biological resources shall be accompanied by a biological resources assessment, as required under **Policy C-OSRC-5b(3)**. Biological resources include, but are not limited to, special status plant or animal species and their habitats, coastal dunes, beaches, tidepools, wetlands, estuaries, lagoons, streams and creeks, riparian habitat, oak and other native tree woodlands, and native grasslands. (NEW)

Policy C-OSRC-5a(2): Fencing or walls shall be prohibited within riparian habitat and on bluffs, except where necessary for public safety, wildfire risk abatement, habitat protection, or restoration. Fencing or walls that do not permit the free passage of wildlife shall be prohibited. Wildlife-passable fencing should generally be no more than 40 inches tall (up to 6 feet to contain horses) and no lower than 16 inches from the ground (as low as 10 inches where sheep, goats, or predation is a concern). Wooden rail, mesh, or chain link is preferred over wire fence tops, which are less visible to and more likely to result in wildlife collisions and entanglements. Where wire cannot be avoided, the top two wires should be at least 12 inches apart, and the top and bottom wires should not be barbed. (NEW)

Commented [A9]: Please move this to the streams and riparian section. All policies that pertain to that specific habitat type/area should be within their relevant sections.

Policy C-OSRC-5a(3): Require buffers around sensitive biological resources to protect them from impacts of development encroachment consistent with the specific buffer provisions of this Local Coastal Program. (NEW)

Policy C-OSRC-5a(4): Proposals for exterior nighttime lighting shall minimize impacts on biotic resources through adherence to Local Coastal Plan **Policies C-OSRC-3a** through **C-OSRC-3e**. (NEW)

Policy C-OSRC-5a(5): The use of native plant species in landscaping shall be encouraged. The use of native or compatible non-native, non-invasive species for landscaping where consistent with fire safety shall be required. The use of invasive exotic plant species shall be prohibited. (GP2020 REVISED)

Policy C-OSRC-5a(6): Project applicants shall provide evidence of permits and clearances required by state and federal agencies before Permit Sonoma issues coastal development permits, or building or grading permits. (GP2020 REVISED/NEW)

Policy C-OSRC-5a(7): A Restoration and Monitoring Plan shall be required for any project ~~requiring involving~~ habitat mitigation or restoration. The Restoration and Monitoring Plan shall consist of a stand-alone document that specifies performance standards, success criteria, adaptive management, and monitoring requirements as described in **Appendix E-1**. (GP2020 REVISED/NEW)

Streams and Riparian Corridors

Many rivers and creeks drain into the Pacific Ocean along the Sonoma Coast. Most of these rivers and creeks support riparian vegetation and provide important habitat and movement corridors for fish

and wildlife species. Riparian areas are typically dominated by trees such as alders and willows and shrubs such as California blackberry, but contain a wide diversity of plants. Riparian areas and creeks have been altered and managed by humans including development of roads, bridges, and other structures adjacent to and through riparian areas. This development has reduced water quality and habitat connectivity, narrowed riparian corridors, and altered stream flows. Current and past management and alteration of stream and riparian areas provides a challenge and opportunity to restore and enhance these systems to provide improved habitat for fish and wildlife. Rivers and creeks and their associated riparian corridors are generally considered to be sensitive habitats (see **Figures C-OSRC-2a** through **2k**).

Major waterways along the coast include Salmon Creek, Russian River, and Gualala River. These rivers and their tributaries, along with other cold-water creeks provide habitat to Coho salmon, Chinook salmon, and Steelhead trout. Most of the coastal rivers and creeks in Sonoma County that provide potential habitat for salmonids have been identified by the federal government as critical habitat, or habitat that is essential for the health of these species. Other native fish also depend on rivers and creeks in Sonoma County, including the tidewater goby. The tidewater goby lives in freshwater to brackish lagoons created by coastal streams; the federal government has identified portions of Salmon Creek and Estero Americano as critical habitat.

Coastal rivers and streams in Sonoma County provide habitat for several wildlife species. The California giant salamander lives in many different coastal creeks and streams, while the California freshwater shrimp is known to occur only within Salmon Creek within the coastal region of Sonoma County. Two other special-status species, the California red-legged frog and foothill yellow-legged frog, also live in coastal creeks and rivers. The California red-legged frog occurs in several streams within southern Sonoma County, including Salmon Creek. Foothill yellow-legged frog is found in rocky streams and occurs within several Sonoma County coastal creeks from Gualala River in the north to Russian Gulch in the south. Riparian corridors also provide excellent foraging and roosting habitat for bird and bat species and habitat for mammals such as bobcat, gray and red fox, and dusky-footed woodrat.

Wetlands

Wetlands provide wildlife habitat and protection from flooding along the Sonoma Coast. Coastal brackish marsh, coastal and valley freshwater marsh, and ponds are all sensitive wetland communities found along the Sonoma Coast. Wetlands are usually dominated by herbaceous species and generally do not contain trees. Much of the wetland habitat found along the coast occurs near Bodega Bay. The Coastal Commission's definition of wetlands is a single-parameter delineation that requires evidence of only one of three wetland indicators (hydrophytic vegetation, hydric soils, or saturated substrate), while the US Army Corps of Engineers requires all three. This LCP adheres to the Coastal Act, and thus follows the single-parameter definition of wetlands. Coastal Commission regulations apply more stringent criteria and methodology to survey and designate wetlands than the U.S. Army Corps of Engineers. Coastal Act regulated wetland surveys may characterize more area as wetlands on a particular parcel than would the Corps. See California Code of Regulations, title 14, section 13577(b). Salt and brackish marsh occurs in only a few areas along the coast. These include coastal brackish lagoons and estuaries including around Penny Island and the shore at the mouth of Russian River, the mouth of Salmon creek (just north of Bodega Bay), within Bodega Harbor, and along Estero

Commented [A10]: This should be fully stated in the document per §13577(b) of the Code of Regulations: "Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats."

Americano (see **Figures C-OSRC-2h** through **2k**). These brackish marshes contain herbaceous plants, such as pickleweed, alkali bulrush, gumweed, and other dominant salt and brackish marsh species. At the mouth of the Gualala River, a small brackish marsh occurs that contains salt grass and salt rush (see **Figure C-OSRC-2a**). Brackish marshes provide food, cover, nesting, and roosting habitat for a variety of birds and mammals. Salt and brackish marshes have been greatly reduced from their historical extent and are important habitat to protect and restore, where feasible. Invasive plant species, existing surrounding development, and projected sea level rise provide challenges in managing and restoring salt and brackish marshes.

Freshwater marshes generally occur more inland or upriver of brackish marshes. Freshwater marshes contain mostly emergent plants such as rushes, cattails, and sedges. Freshwater marshes can provide habitat for California red-legged frog and western pond turtle as well as for many species of birds. Small seeps and ponds also occur intermittently throughout the coast and many of these form seasonally or permanently wet conditions. Some ponds or reservoirs have been man-made or have been significantly altered by humans, but still provide important habitat and water resource for wildlife. Management challenges include invasive wildlife such as the American bull frog, invasive plants species, and altered hydrologic regimes.

Marine Habitats

The Sonoma County coast contains a wide variety of marine habitats including offshore rocks, kelp forests, eelgrass beds, tidal flats, rocky intertidal shoreline, and sandy beaches.

Offshore of the Sonoma coast, coastal waters provide habitat to a large number of fish species, resident and migratory marine mammal species, and seabirds. While offshore waters provide foraging habitat for seabirds, offshore rocks provide roosting and nesting areas for seabird species such as Brandt's cormorant, pelagic cormorant, brown pelican, and pigeon guillemot. Kelp forests are commonly found in nearshore coastal waters north of the Russian River (see **Figures C-OSRC-2a** through **2f**). Kelp forests provide refuge from ocean predators, relief from currents, and a source of food and essential habitat for invertebrates, fish, and marine animals. Management challenges to marine habitats include overfishing, water quality, human disturbance, and climate change.

Eelgrass beds are found within the protected subtidal waters of Bodega Harbor and Estero Americano in southern Sonoma County (see **Figures C-OSRC-2i** through **2k**). These productive ecosystems not only provide food, shelter, and nursery habitat for commercially and recreationally fished species, but also reduce erosion. Bodega Harbor and Estero Americano also contain exposed tidal mudflats at low tide which provide an important invertebrate food source for shorebirds.

Rocky intertidal habitat and sandy beaches occur in narrow bands over much of the Sonoma Coast and provide great foraging grounds for shorebirds and gulls. Rocky intertidal shores are exposed during low tide and covered by seawater during high tide. The plants (likely limited to eelgrass), invertebrates, and algae that live in the rocky intertidal zone create a biologically diverse and productive community.

Stellar sea lions and other pinnipeds haul out on offshore intertidal areas that become exposed at low tides. Seals and sea lions use intertidal areas and sandy beaches, spits, and bars to haul out and rest. Harbor seals specifically use sandy beaches including the beaches at Sonoma Coast Sea Ranch, Jenner,

and Bodega Bay to rest, molt, give birth, and nurse their pups. California sea lions and northern elephant seals are occasionally observed at these harbor seal haul out locations.

Terrestrial Habitats

A wide range of terrestrial habitats occur throughout the coastal areas of Sonoma County. Terrestrial habitats include coastal dunes, coastal prairie, coastal scrub, woodlands and forests, and urban and residential areas which contain habitats.

Coastal dunes frame many beaches along the coast and support a hardy ground cover of native shrubs, grasses and wildflowers. Many coastal dune areas have been invaded by non-native plants such as European beach grass and iceplant, which outcompete and threaten the survival of many native dune plant species. These non-native plants change the ecosystem of the coastal dunes and also threaten the nesting habitat of the western snowy plover. Coastal dunes are most commonly found in State and regional parks along the coast as these areas are protected from development.

Coastal prairie and grassland support a rich assemblage of native plants on coastal terraces and bluffs in Sonoma County. More than 90 percent of coastal prairie habitat has been lost, but it is still found sporadically along the Pacific coast of California, including Sonoma County (see **Figures C-OSRC-2e** and **2h**). Due to the drastic habitat loss and great diversity of these grasslands, coastal prairies are considered sensitive habitats. Following conversion from native bunch-grass and herb dominated communities to vegetation dominated by non-native grasses and herbs, much of Sonoma County's historic coastal grasslands are now considered non-native annual grasslands after undergoing substantial conversion. Many of these grasslands are managed by grazing, which reduces the leaf litter caused by the larger and more aggressive non-native vegetation. Coastal prairies that are not grazed, or have been undisturbed from fire for long periods of time, often develop into coastal scrub habitat dominated by native shrubs such as bush lupine and coyote bush. Coastal prairie and scrub habitat occurs mostly on protected lands including Wright Hill Ranch, Salt Point State Park, Jenner Headlands Preserve, and Sonoma Coast State Park.

3.3 ENVIRONMENTALLY SENSITIVE HABITAT

Environmentally Sensitive Habitat Area (ESHA) are areas in which plant or animal life or their habitats are either rare or especially valuable because of their specific nature or role in an ecosystem, and which could be easily disturbed or degraded by human activities and developments. Potential ESHAs are presented on **Figures C-OSRC-2a** through **2k**. These figures are not intended to be an exhaustive compilation of the habitat areas that may meet the ESHA definition. Any area not identified as a potential ESHA on **Figures C-OSRC-2a** through **2k** but that meets the ESHA criteria is ESHA, and shall be accorded all the protection provided for ESHAs in the Local Coastal Program. Further, while ESHA maps can serve as an illustrative tool to help identify the presence of potential resources, it is the actual presence of ESHA on the site as determined by a site specific analysis that dictates whether ESHA policies apply to a site. The Local Coastal Plan's ESHA policies will generally not apply to marine habitats which are protected separately. Under the Coastal Act, ESHAs are governed by **Section 30240**, while marine resources are governed by **Section 30230** and **30231**.

Commented [A11]: Please consider including a discussion of habitat values, including the disruption of habitat values defined as the "physical removal, destruction, damage, disturbance, fragmentation, or contamination of air, land, water, soil, and vegetation of an area which cause the plant and animal habitats in the area to be removed, replaced by other habitats, or degraded to the point where the habitats are functionally unable to support the plant and animal species originally present."

Commented [A12]: As stated previously the full Coastal Act policies that pertain to this chapter should be stated in entirety.

Policy C-OSRC-5b(1): The following areas shall be considered ESHA, unless there is compelling site-specific evidence to the contrary:

- (1) Any habitat area that is rare or especially valuable from a local, regional, or statewide perspective.
- (2) Areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law.
- (3) Areas that contribute to the viability of species designated as Fully Protected or Species of Special Concern under State law or regulations.
- (4) Areas that contribute to the viability of plant and animal species for which there is compelling evidence of rarity, or a species or habitat that is considered to have a special role in the ecosystem. (NEW)

Policy C-OSRC-5b(2): The following criteria shall be considered when determining whether an area should be designated ESHA:

- (1) The potential ESHAs presented on **Figures C-OSRC-2a** through **2k**
- (2) Federally-listed Rare, Threatened, & Endangered Species
- (3) State-listed Rare, Threatened & Endangered Species
- (4) Federal and State Proposed/Candidate Species
- (5) California Native Plant Society “1B” and “2” Listed Species
- (6) California Department of Fish and Wildlife Global and State 1 - 3 Ranked Vegetation Communities (i.e. G1, G2, G3, S1, S2, S3)
- (7) California Department of Fish and Wildlife Global and State 1 - 3 Ranked Plant and Animal Species
- (8) California Species of Special Concern
- (9) California Fully Protected Species
- (10) Habitats that Support Listed Species (i.e., those in 2 & 3)
- (11) Tree stands that support raptor nesting or monarch populations
- (12) Genetically special populations (NEW)

Policy C-OSRC-5b(3): A biological resource assessment shall be required for any project which could impact biological resources. The biological resource assessment shall be

Commented [A13]: General guidance from the Commission suggests including a complementary policy with requirements for a historical analysis of disturbed areas adjacent to or within ESHA to determine if these areas were cleared or disturbed pursuant to a valid local or Coastal Commission coastal development permit

performed by a qualified biologist and shall meet criteria described in **Appendix E-2**, **Biological Resource Assessment Requirements**. Permit Sonoma may require additional site specific information. (NEW)

Policy C-OSRC-5b(4): ESHAs shall be protected against any significant disruption of **habitat values**. Uses allowed within ESHAs shall be limited to those that are dependent on and compatible with maintaining the **habitat values within** ESHA ~~resources~~, and those that are otherwise specifically provided for in **Policy C-OSRC-5b(10)** and **Appendix E-3**. Proposed development in areas adjacent to ESHAs and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and must be compatible with the continuance of such habitat areas. (NEW)

Policy C-OSRC-5b(5): Establish buffers around ESHA to protect it from development impacts. ESHA buffers shall be developed in accordance with **Appendix E-3**. All buffers around ESHA shall be a minimum of 100 feet in width; a lesser width may be approved by the County as addressed in **Policy C-OSRC-5b(10)**, **Policy C-OSRC-5b(7)**, and **Appendix E-3**. ~~A buffer of greater than 100 feet may be required in consultation with resource agencies to protect sensitive species. For example, a~~ Generally, a 600-foot buffer is might be required for heron rookeries; a 500-foot buffer for occupied raptor nests; a 300-foot buffer for any occupied burrow of a burrowing owl. However, these buffers may be reduced, to a minimum of 100ft, in consultation with resource agencies and with the recommended mitigation and monitoring for impacts. Only developments consistent with **Policy C-OSRC-5b(7)** shall be allowed in (non-wetland) ESHA buffers. (NEW)

Policy C-OSRC-5b(6): Public access-ways and trails are considered resource dependent uses. New access-ways and trails located within or adjacent to ESHA shall be sited to minimize impacts to ESHA to the maximum extent feasible. Measures, including but not limited to signage, placement of boardwalks, and limited fencing shall be implemented as necessary to protect ESHA. (NEW)

Policy C-OSRC-5b(7): In some cases, smaller buffers around (non-wetland) ESHA and other biotic resources may be appropriate, when conditions of the site as demonstrated in a site specific biological assessment, the nature of the proposed development, and appropriate mitigation, show that a smaller buffer would provide adequate protection. In such cases, the County must find that a reduced buffer is appropriate and that the development could not be feasibly constructed without a reduced buffer. In no case shall the buffer be less than 50 feet.

Policy C-OSRC-5b(8): If proposed development is a permissible use and there is no feasible alternative, including the no project alternative, that can avoid significant impacts to ESHA, then the alternative that would result in the fewest or least significant impacts shall be selected. Residual adverse impacts to ESHA shall be fully mitigated, with priority given to on-site habitat mitigation. Off-site habitat mitigation measures shall only be approved when

Commented [A14]: The “Biological Resource Assessment Requirements should contain more criteria including:

1. To identify and analyze the potential biological impacts of the proposed development and distinguish between time (permanent vs. temporary impacts) and/or or space (e.g., maintenance of large habitat areas vs. habitat fragmentation. The duration of temporary impacts must be specified. Possible cumulative biological impacts must also be discussed.
2. The biological report must contain a discussion of all field methods actually employed, including the methods for formal protocol surveys. The detailed survey protocols for particular sensitive habitats or species may be placed in an appendix, but should not just be referenced to in a separate document.
3. The determination of when to visit a site should follow a specific set of criteria, not be dependent solely on the biologist.
4. There should be more detailed description of the contents of the biological assessment report.
5. An Oak tree report
6. Biological Assessment Checklist

A helpful reference document is the Santa Monica Mountains IP Section 22.44.1870(505-513), (https://planning.lacounty.gov/assets/upl/project/coastal_amended-LIP-maps.pdf)

Commented [A15]: Please include a description of habitat values in the discussion section of this chapter.

Commented [A16]: We recommend adding a policy or set of policies addressing climate change and sea level rise effects on ESHA

it is not feasible to fully mitigate impacts on-site or where off-site habitat mitigation is more protective, as documented in a biological resource assessment prepared by a qualified biologist and approved by Permit Sonoma staff. Any determination that it is infeasible to mitigate impacts onsite should be supported by written findings. Mitigation may not be used as a substitute for implementation of the feasible project alternative that would avoid impacts to ESHA. Mitigation for impacts to ESHAs other than marine habitats shall be provided at a minimum ratio of 2:1. The more specific mitigation requirements as required by regulatory agencies or the County shall control over the more general mitigation requirements of this Local Coastal Plan. (NEW)

Policy C-OSRC-5b(9): Adjacent to ESHA, the use of compatible native, non-invasive plant species for landscaping shall be required as a condition of coastal development permit approval. The use of invasive exotic plant species shall be prohibited. No landscaping shall extend into ESHA. (GP2020 REVISED)

Policy C-OSRC-5b(10): If the application of the policies and standards contained in this Local Coastal Plan regarding use of property designated as ESHA or ESHA buffer, including the restriction of ESHA to only resource-dependent use, would likely constitute a taking of private property without just compensation, then a use that is not consistent with the ESHA provisions of the Local Coastal Plan may be allowed on the property, provided such use is consistent with all other applicable policies of the Local Coastal Plan, the approved project is the alternative that would result in the fewest or least significant impacts, and it is the minimum amount of development necessary to avoid a taking of private property without just compensation. In such a case, mitigation for impacts on ESHA shall be required in accordance with applicable Local Coastal Plan policies. Mitigation may not be used as a substitute for implementation of a feasible project alternative that would avoid adverse impacts to ESHAs. (NEW)

Commented [A17]: Seems redundant to rest of language in this policy.

Policy C-OSRC-5b(11): Land divisions, including subdivisions, lot splits, and lot line adjustments involving lots containing or within proximity to wetlands, watercourses, or other ESHA for which protective buffers are required, may be approved only if findings are made to support that the resulting parcels contain adequate land area to place all improvements (e.g., buildings, sewage disposal where applicable, and appurtenant structures and features such as detention/retention ponds and biofiltration swales) outside of areas required for ~~to wetlands, watercourses, watercourse or other~~ ESHA buffer protection. (NEW)

3.4 STREAMS AND RIPARIAN VEGETATION

Policy C-OSRC-5c(1): Along both sides of riparian corridors, as defined in this Local Coastal Plan, establish streamside conservation areas measured on each side of the channel as: a) within riparian habitat as determined by the Permit Sonoma or a qualified resource specialist, b) 100 feet from the landward edge of riparian vegetation as defined by Permit

Commented [A18]: Please explain why Objective C-OSRC-6.11: "Designate all streams shown on maps created by USGS in the National Hydrography dataset as Riparian Corridors, and establish streamside conservation areas along these designated corridors." was removed.

Sonoma or a qualified resource specialist, or c) 100 feet (200 feet for the Russian River) out from the top of the bank on each side of the stream, whichever is farthest from the channel centerline. Where there is more than one bank on a side of the stream and the top-of-bank measurement approach is used, the measurement shall be from the top of the higher bank on that side. (GP2020 REVISED) (EXISTING LCP REVISED: RECOMMENDATION 9 ON PAGE 28)

Policy C-OSRC-5c(2): Allowable uses and development within any streamside conservation area or Riparian Corridor shall be limited to uses and methods described in **Habitat Development Guidelines** where it can be sited, designed, and shown that construction, operation, and maintenance of the use or development would not result in significant, long-term adverse impacts on the functions and values of the riparian habitat. (EXISTING LCP REVISED: RECOMMENDATIONS 9-13 ON PAGES 28-29)

Policy C-OSRC-5c(3): Channelizations, dams, or other substantial alterations of rivers and streams shall be prohibited except for: (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat. Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources, including the depletion of groundwater, and shall include measures sufficient to appropriately mitigate unavoidable impacts. Alternatives that incorporate a biotechnical component to river or stream bank stabilization (e.g., pocket planting and joint planting, vegetated crib walls, vegetated slope gratings, etc.) shall be encouraged over alternatives that employ strictly hard solutions (e.g., concrete wall or riprap banks) so long as the alternatives are consistent with all other applicable provisions of this LCP. Where there is conflict the more specific permissible use provisions of this policy shall control over the more general use provisions for other types of ESHA identified in **Policy C-OSRC-5b(7)**. (NEW)

Policy C-OSRC-5c(4): Maintain and restore the biological productivity and the quality of coastal waters, streams, wetlands, and lakes in order to maintain optimum populations of marine organisms and to protect human health. (NEW)

Policy C-OSRC-5c(5): To protect fishery resources and minimize impacts on water supply, projects which would limit in-stream flows shall comply with State Water Resources Control Board's Policy for Maintaining Instream Flows in Northern California Coastal Streams, adopted under Resolution 2013-0035, effective February 4, 2014 (23 CCR Section 2921). (NEW)

Policy C-OSRC-5c(6): In Anadromous Fish Streams (Chinook and Coho Salmon Habitat), the following uses and activities shall be prohibited:

- (1) Dredging.

Commented [A19]: Please include the policy on riparian combining districts or explain why it was removed.

Commented [A21]: The Habitat Development Guidelines described in Appendix E-3 should be stated as policies within the body of this document and not in the appendix.

Commented [A22]: These policies for preserving Chinook and Coho Habitat were removed are not contained in the water resources chapter. Please explain why they were removed and consider adding back:

"Carry out the following activities to preserve Chinook and Coho Salmon Habitat (Anadromous Fish Streams):

- (1) . In an Anadromous Fish Stream, maintain flow levels 1.5 times the minimum necessary for use of the stream as an anadromous fish spawning area.
- (2) . All stream diversions shall be stopped when the stream flow in an Anadromous Fish Stream falls below the minimum flow standard and until the stream flow returns to levels above the minimum flow standard.
- (3) . Allow and encourage maintenance of summer base flow in an Anadromous Fish Stream to ensure survival of fish in all life cycle phases"

And the policy to work with SCWA on "bed and bank" channels: "Work with the Sonoma County Water Agency and other entities to identify all streams with "bed-and-bank" channels and consider Riparian Corridor designation for all such streams."

Commented [A23]: Please include specific guidelines regarding what biological productivity and quality are going to be restored to, eg., how the LCP will set baselines.

(2) Dams and other structures which would prevent upstream migration of anadromous fish unless other measures are used to allow fish to bypass these structures. (EXISTING LCP REVISED)

Policy C-OSRC-5c(7): Where riparian corridor impacts are permitted in conformity with the Coastal Act and any applicable Local Coastal Plan policies, adverse impacts on riparian vegetation shall be mitigated at a ratio of at least 3:1 to compensate for the temporal and functional loss of affected habitats. (NEW)

Policy C-OSRC-5c(8): As part of the environmental review process, refer permit applications near streams to California Department of Fish and Wildlife and other agencies responsible for natural resource protection. [REDACTED]

3.5 WETLANDS

Policy C-OSRC-5d(1): Wetlands shall be defined and delineated consistent with the definitions of the Coastal Act, the Coastal Commission Regulations, and this Local Coastal Plan, as applicable. Wetlands include any area where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Wetlands are here defined to include marshes, ponds, seeps, and reservoirs. The upland limit (encompassing the greatest extent) of a wetland is designated as 1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; 2) the boundary between soil that is predominantly hydric and soil that is predominantly non-hydric; 3) in the case of wetlands without vegetation or soil, the boundary between land that is flooded or saturated at some time each year and land that is not. [REDACTED]

Any unmapped areas that meet these criteria are wetlands and shall be accorded all of the protections provided for wetlands in the Local Coastal Plan. A delineation report prepared for wetlands within the Coastal Zone shall reference and describe for the property in question any wetlands information documented in the National Wetlands Inventory. (EXISTING LCP REVISED)

Policy C-OSRC-5d(2): [REDACTED] The Coastal Act definition of wetland (Section 30121) does not distinguish between wetlands according to their quality. Thus, poorly functioning or degraded areas that meet the definition of wetlands are subject to the wetland protection policies of this Local Coastal Plan. (NEW)

C-OSRC-5d(3): Establish and maintain buffer areas, a minimum of 100 feet in width, in a natural, undeveloped, condition along the periphery of all wetlands. [REDACTED]; between 100 and 300 feet from [REDACTED]

Commented [A24]: The following programs are missing:

Program C-OSRC-8o: Continue to actively participate in the FishNet4C program and work cooperatively with participating agencies to implement recommendations to improve and restore aquatic habitat for listed anadromous fish species and other fishery resources. (GP2020)

Program C-OSRC-8p: In coordination with resource agencies, landowners, and the affected public, regularly review Riparian Corridor designations; ephemeral drainage; the requests, approvals, and required mitigation for setback reductions; any cumulative effect of the approved reductions; and other protection issues and, if warranted, develop recommendations for County policies that may be needed to ensure appropriate protection of Riparian Corridors. (GP2020)

Program C-OSRC-8q: In coordination with resource agencies, landowners, and the affected public, conduct a comprehensive study of Riparian Corridors in grazing areas and, if warranted, develop recommendations for County policies that may be needed to ensure appropriate protection of such corridors. The study should consider the need for policies directing development of livestock watering areas away from Riparian Corridors and use of special range management practices, including fencing, which protect Riparian Corridors. (GP2020 Revised) (Existing LCP Revised: Recommendations 14-15 on page [REDACTED])

Commented [A25]: Please include a citation to the National Wetland Plant List (USACE) website where the list of wetland plants are located and regularly updated for different geographies.

Commented [A26]: Determining wetland extends should be described as policies in this chapter, not in the appendix.

Commented [A27]: Missing this policy:

Policy C-OSRC-9c: Where the required initial site inventory indicates the presence or potential for wetland species or indicators, the County shall require the submittal of a detailed biological study of the site, consistent with the requirements of Policy C-OSRC-7e, including a delineation of all wetland areas on the project site. Wetland extents shall be determined in conformance with the direction provided in Appendix X.2. (NEW) [REDACTED]

Commented [A28]: Determining wetland buffers, and the buffers for all relevant habitat areas should be defined as separate policies within this chapter, not in the appendix. In addition, Appendix E-3 should reiterate that the minimum buffer for wetland is 100 ft to avoid conflict between this policy and what is stated in the appendix

wetlands, prohibit construction of agricultural, commercial, industrial and residential structures unless the Permit and Resource Management Department finds the wetland would not be affected by such construction. (EXISTING LCP REVISED)

Policy C-OSRC-5d(4): In Bodega Harbor Tidelands, the following uses and activities shall be prohibited:

- (1) Motor vehicles.
- (2) Dredging and filling, except in accordance with **Policy C-OSRC-5d(5)**
- (3) Discharge of effluent, including those of land- and boat-based origins

Policy C-OSRC-5d(5): Diking, filling, draining, and dredging of coastal waters, wetlands, and estuaries shall be permitted only in accordance with other applicable provisions of this Local Coastal Program and only when consistent with Coastal Act, Section 30233, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to uses and methods described in Habitat Protection Guidelines, Appendix E-5. The more specific permissible use provisions of this policy shall control over the more general use provisions for other types of ESHA identified in **Policies C-OSRC-5b(7) and C-OSRC-5e(4)**. (NEW)

Policy C-OSRC-5d(6): In wetlands, the following uses and activities shall be prohibited:

- (1) Motor vehicles.
- (2) Diking, filling, and dredging, except in accordance with Policy C-OSRC-5d(5).
- (3) Discharge of stormwater or wastewater unless it maintains or enhances wetland function and receiving water quality.
- (4) Agricultural activities, including grazing.
- (5) Removal of vegetation except where necessary to maintain plant, fish and wildlife habitat.
- (6) Construction of agricultural, commercial, industrial, and residential structures:
 - a. Within 100 feet.

~~(7) Between 100 to 300 feet, unless an environmental assessment or qualified biologist shows the proposed activity/development would not have an adverse impact on the wetland it would not have an adverse impact on the wetland.~~

~~(8)(7)~~ New water diversions from streams which feed wetlands. (EXISTING LCP REVISED)

Commented [A29]: Wetland impacts should be determined by biologic impact reports done by a qualified individual, not a planning agency. Please change this policy to reflect this.

Commented [A30]: The prohibition of domestic animals off leash was removed from this policy. Please add it back in or provide an explanation as to why it was removed.

Commented [A31]: Habitat Protection Guidelines should be included as specific policies within this chapter, not in the appendix.

Commented [A32]: This does not appear to be a correct policy reference as these policies do not list other types of ESHA. Please reference the correct policies here.

Policy C-OSRC-5d(7): In cooperation with resource agencies, require landowners to erect wildlife-passable fencing around springs, seeps, and ponds located on grazing land as a condition of permit approval and to develop watering areas outside of wetlands and riparian corridors. (EXISTING LCP REVISED)

Policy C-OSRC-5d(8): Where wetlands fill or development impacts are permitted in conformity with the Coastal Act and any applicable Local Coastal Plan policies, require mitigation measures to compensate for the temporal and functional loss of affected wetlands and associated habitat. Mitigation must meet the criteria in the Habitat Protection Guidelines, Appendix E-5. In order of preference, compensatory mitigation may include on-site restoration of degraded wetlands, off-site restoration of degraded wetlands, acquisition of offsite areas of equal or greater biological productivity, or creation of tidal wetlands. Adverse impacts shall be mitigated at a ratio of at least 4:1 for all types of wetlands. If no appropriate restoration site is available, wetland mitigation credit may be purchased, prior to disturbing wetlands, at a resource agency-approved mitigation bank whose service area includes Sonoma County's coastal zone.¹ (NEW)

Commented [A33]: Mitigation and restoration policies should be included in the body of this chapter, not in Appendix E-5.3

3.6 MARINE HABITATS

Policy C-OSRC-5e(1): Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms for long-term commercial, recreational, scientific, and educational purposes. Mitigation for impacts to marine habitats shall be provided at a minimum ratio of 4:1. The more specific mitigation requirements shall control over the more general mitigation requirements of this Local Coastal Plan. (NEW)

Commented [A34]: Please include a policy outlining all the mitigation ratios for relevant habitat types within the coastal zone.

Policy C-OSRC-5e(2): At rocky intertidal coastline, the following uses and activities shall be prohibited:

- (1) Motor vehicles.
- (2) Development of groins, breakwaters, piers, sea walls, pipelines, or other structures which alter natural shoreline processes. Existing structures causing water pollution or fish mortality shall be phased-out or upgraded where feasible. (EXISTING LCP REVISED)

¹ The U.S. Army Corps of Engineers maintains an index of approved wetland mitigation banks. The index is available via the agency's San Francisco District website at: <http://www.spn.usace.army.mil/Missions/Regulatory/Mitigation-Banks/Approved-Banks-for-the-San-Francisco-Regulatory-Di/>

Policy C-OSRC-5e(3): Public access to Offshore Rocks and onshore nesting/rookery areas used by seabirds to breed or nest or which provide habitat for seals and sea lions shall be prohibited. (EXISTING LCP REVISED: RECOMMENDATION 39 ON PAGE 31)

Policy C-OSRC-5e(4): On sand beaches, spits, or bars, the following uses and activities shall be prohibited:

- (1) Motor vehicles, except for those required for management or emergency use.
- (2) Removal of sand.
- (3) Opening of sand bars, except where necessary for maintenance of tidal flow to ensure the continued biological productivity of streams and associated wetlands and to prevent flooding. Applications for allowable opening shall include a plan, prepared in consultation with and reviewed by applicable resource agencies (e.g., National Marine Fisheries Service and California Department of Fish and Wildlife) that describes measures that will be implemented to avoid and/or minimize impacts on special status species affected by the proposed action. Sand bars shall not be breached until there is sufficient in-stream flow to preserve anadromous fish runs. (EXISTING LCP REVISED)

Policy C-OSRC-5e(5): Disturbance of marine mammal haul-out grounds shall be prohibited and recreational activities near these areas shall be limited to passive recreation. Disturbance of areas used by harbor seals and sea lions shall be avoided. (EXISTING LCP REVISED)

Policy C-OSRC-5e(6): Encourage the California Department of Fish and Wildlife to monitor Marine Mammal Haul-Out Grounds on an annual basis to determine their condition and level of use by marine mammals; and to incorporate this information into its management plan for marine mammals. (EXISTING LCP REVISED)

Policy C-OSRC-5e(7): Encourage the pertinent state and federal agencies to carry-out the following activities to preserve kelp beds:

- (1) Monitor the size and viability of the kelp beds for all ecological functions including fish habitat;
- (2) Regulate and monitor activities such as sewage disposal, dredging, and renewable energy development, and other projects which could degrade nearshore marine water quality and hence have an adverse impact on kelp habitat;
- (3) Prohibit petroleum and other forms of energy development which may have a significant impact on kelp beds as a result of normal operations or accidents (e.g., oil spills and well blow-outs); and
- (4) Require applicants for commercial or industrial kelp harvesting to conduct studies, in consultation with the California Department of Fish and Wildlife, of the specific sites

or areas proposed for kelp harvesting. The studies shall identify measures that could be implemented following harvest to restore these sites to their pre-harvest condition, including identification of reference sites and performance standards for determining restoration success. Require any authorized harvesting to be conducted consistent with the recommendation of the studies, including site restoration measures. (EXISTING LCP REVISED)

3.7 TERRESTRIAL HABITATS

Policy C-OSRC-5f(1): On dunes/coastal strand, the following uses and activities shall be prohibited:

- (1) Uses other than resource-dependent, scientific, educational, and passive recreational uses including support facilities.
- (2) Public access during the breeding and nesting seasons of special status animals.
- (3) Motorized vehicles, except those required for management or emergency use.
- (4) Disturbance, damage, or removal of dune vegetation except as required for park construction or maintenance projects for which revegetation or removal of non-natives is a condition of project approval.
- (5) Removal of sand except where required for construction of parks and support facilities. (EXISTING LCP REVISED)

Policy C-OSRC-5f(2): On dunes/coastal strand, carry-out the following activities to preserve native vegetation:

- (1) Limit public access in areas of plant communities.
- (2) Post signs which explain the importance of limiting public access to protect plant communities.
- (3) Where public access is allowed, develop and use well-defined footpaths or raised boardwalks. (EXISTING LCP REVISED)

Policy C-OSRC-5f(3): The following guidelines shall be used for developing public access on Coastal Bluffs:

- (1) Steps, trails, and paths shall be sited and designed so as to minimize erosion and disruption to native vegetation.
- (2) In areas of heavy recreational use, surfaced steps, trails, and paths shall be constructed.

- (3) In areas of moderate recreational use, to the extent available and consistent with the resource protection policies of this Local Coastal Plan, local materials (obtained from the site) shall be used to construct steps, trails, and paths. (EXISTING LCP REVISED: RECOMMENDATIONS 45-46 ON PAGE 31)

Policy C-OSRC-5f(4): At coastal bluffs, the following uses and activities shall be prohibited:

- (1) Removal of sand or rock except that necessary for road maintenance.
- (2) Public access off established steps, trails, or paths; and motor vehicles. Equestrian use shall be restricted to areas where ground compaction and erosion from use of horses would not have an adverse impact on bluff stability. (EXISTING LCP REVISED: RECOMMENDATIONS 40-44 ON PAGE 31)

Policy C-OSRC-5f(5): Carry-out the following activities to preserve coastal terrace prairie:

- (1) At Bodega Head and Stump Beach, sites shall be developed for the public to observe cormorants and other seabirds; and
- (2) At Stillwater Cove County Park, use of the upland area for habitat education activities shall be encouraged. (EXISTING LCP REVISED)

Policy C-OSRC-5f(6): The identification through site assessment, preservation, and protection of native trees and woodlands shall be required. To the maximum extent practicable, the removal of native trees and fragmentation of woodlands shall be minimized; any trees removed shall be replaced, preferably on the site at a greater than 1:1 ratio (and at a greater than 3:1 ratio for riparian trees); and permanent protection of other existing woodlands shall be provided where replacement planting does not provide adequate mitigation. (GP2020 REVISED)

Policy C-OSRC-5f(7): Identify important oak woodlands; assess current protection of oak woodlands; identify options to provide greater protection of oak woodlands, including identification and removal of trees infected with *Phytophthora ramorum*, and their role in connectivity, water quality, and scenic resources; and develop recommendations for regulatory protection and voluntary programs to protect and enhance oak woodlands through education, technical assistance, easements, and incentives. (GP2020)

Policy C-OSRC-5f(8): In Mendocino Pygmy Cypress Forest, the following uses and activities shall be prohibited:

- (1) Motor vehicles, except for those required for management or emergency use.
- (2) Construction of permanent structures, except where necessary for scientific and educational uses. (EXISTING LCP REVISED)

Policy C-OSRC-5f(9): Encourage preservation of remaining old growth Redwood and Douglas Fir forests in private ownership. Because of their rarity and biological importance, these forests should be made priorities for protection through conservation easements, fee title purchase, or other mechanisms. (GP2020 REVISED)

Commented [A35]: Redwoods, Douglas Fir, and other rare or important tree species should be defined as ESHA within the ESHA definition given in this chapter.

Policy C-OSRC-5f(10): At, around, and near osprey nest sites, the following shall be prohibited:

- (1) Removal of osprey nests.
- (2) Removal of snags and dead tops of live trees.
- (3) Development of new structures and roads.

Recreational activities shall be limited to low-intensity passive recreation, these areas are particularly vulnerable during the period of egg incubation in May to July and activities should be further limited.

Osprey nest sites located adjacent to Willow Creek, Freezeout Creek, and Russian River shall be protected from disturbance by timber harvesting activities. (EXISTING LCP REVISED)

Policy C-OSCR-5f(11): For development in locations known, or determined by environmental review, to potentially have breeding or nesting sensitive bird species, two weeks prior to any scheduled development, a qualified biological monitor shall conduct a preconstruction survey of the site and within 500 feet of the project site. For purposes of this provision, sensitive bird species are those species designated threatened or endangered by state or federal agencies, California Species of Special Concern, California Fully Protected Species, raptors, and large wading birds. In addition, surveys must be conducted every two weeks for sensitive nesting birds during the breeding season. If nesting sensitive birds are detected at any time during the breeding season, the California Department of Fish and Wildlife shall be notified and an appropriate disturbance set-back will be determined and imposed until the young-of-the-year are no longer reliant upon the nest. In no cases shall the buffer be less than 100 feet. (NEW)

Policy C-OSRC-5f(12): At offshore rocky and intertidal egret or heron rookeries, the following uses and activities shall be prohibited:

- (1) Public access.
- (2) Construction of structures or roads within 600 feet.
- (3) On Penny Island, uses other than low intensity scientific and educational uses, managed so as not to interfere with nesting activity (February to mid-July). (EXISTING LCP REVISED)

Policy C-OSRC-5f(13): On coastal bluffs, public access in areas used by birds for nesting or resting, and removal of native plant species shall be minimized. (EXISTING LCP REVISED)

4 COMMERCIAL FISHING AND SUPPORT FACILITIES POLICY

4.1 BACKGROUND

Sonoma County contains marine and inland fisheries and a growing aquaculture industry. Bodega Harbor is the home of a major commercial fishing fleet with berths, boat launching ramps, fish receiving piers, a navigation channel, and a marina. Commercial and sport fishing net salmon, crab, herring, halibut, shark, and bottom fish.

California Coastal Act

The 1976 California Coastal Act supports coastal-dependent development stressing protection of commercial and sport fishing and necessary support facilities as a coastal dependent and recreational use. Coastal dependent and recreational uses are considered priority uses under the Coastal Act.

Climate Change

Climate change will impact fisheries on and off the Sonoma County coast, as fisheries are highly dependent on specific climate conditions. Warmer water temperatures will shift habitat ranges of many fish and shellfish species, which will in turn have a disruptive effect on marine ecosystems. Many marine species have certain temperature ranges at which they can survive. Many aquatic species can find colder areas of streams and lakes or move northward along the coast or in the ocean. However, moving into new areas may put these species into competition with other species over food and other resources. Some diseases that affect aquatic life may become more prevalent in warm water. Changes in temperature and seasons could affect the timing of reproduction and migration.

In addition to warming, the world's oceans are gradually becoming more acidic due to increases in atmospheric carbon dioxide (CO₂). Increasing acidity could harm shellfish by weakening their shells, which are created from calcium and are vulnerable to increasing acidity. Acidification may also threaten the structures of sensitive ecosystems upon which some fish and shellfish rely.

Overall, climate change could make it more difficult to catch fish in the same ways and same places as we have done in the past. Many fisheries already face multiple stresses, including overfishing and water pollution. Climate change may worsen these stresses. In particular, changes in water temperature could lead to significant impacts on fisheries. It is not possible to predict with any accuracy the impacts of climate change on fisheries along the Sonoma County coast in the next 20 years.

Offshore Marine Protected Areas

While offshore areas are beyond the County's Local Coastal Program jurisdiction, there are a number of notable and important natural areas offshore of the Sonoma County coast. In particular, there are two National Marine Sanctuaries managed by the National Oceanic and Atmospheric Administration (NOAA), Gulf of the Farallones National Marine Sanctuary and Cordell Bank National Marine

Sanctuary, and one national monument, the California Coastal National Monument, which is managed along the entire California coastline by the United States Bureau of Land Management (BLM). Together, these three areas represent major coastal national resources for the County and the State. Various Federal and State restrictions on fishing and other commercial and recreational activities apply within these areas.

Gulf of the Farallones National Marine Sanctuary. The Gulf of the Farallones National Marine Sanctuary is a 966-square-nautical-mile conservation area that extends from Bodega Bay along the western shores of Sonoma and Marin counties. NOAA has identified the area as containing exceptional natural resources worthy of special recognition, protection, and designation as a National Marine Sanctuary. The latest management plan for this sanctuary was published in December of 2014.

Cordell Bank National Marine Sanctuary. The Cordell Bank National Marine Sanctuary is a 399-square-nautical-mile that borders the Gulf of the Farallones National Marine Sanctuary to the west. This sanctuary contains unique oceanic conditions and topography, as it features substantial variations water depth along its western boundary, ranging from 115 below the sea surface to 6,000 feet below the sea and continuing further beyond the sanctuary boundaries. These steep and sudden pinnacles and ridges in the sea make for complex sediment distribution and biodiversity. The latest management plan for this sanctuary was also drafted in October 2008.

California Coastal National Monument. The California Coastal Monument is a major, statewide national monument that spans the entire coastline of the state of California, extending 12 miles offshore, and contains 20,000 rocks and islands (but not major islands, such as the Channel Islands, Farallon Islands, or islands within the San Francisco Bay) and 1,100 miles of total coastline. Portions of the Coastal National Monument overlap with the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries.

Oil Exploration and Development

Oil exploration and development on the Sonoma County coast may adversely affect sensitive areas identified in the Local Coastal Plan. See the Outer Continental Shelf Development Policy section of the Land Use Element for information and policy on oil exploration and development on the Sonoma County coast.

Bodega Bay and Harbor

Bodega Bay is the largest harbor in Sonoma County and is about 58 miles north of the entrance to San Francisco Bay. Bodega Bay is well protected from the open ocean and prevailing winds by Bodega Bay and Doran Beach and provides shelter for a large fleet of commercial and pleasure boats. Bodega Harbor is located in the northeastern portion of Bodega Bay and serves as the largest fishing port between San Francisco and Fort Bragg. Existing fishing industry facilities at the harbor include two berth installations, three boat launch ramps, commercial fish receiving piers, and a federal navigation channel maintained by the U.S. Army Corps of Engineers (**Table C-OSRC-1**).

Table C-OSRC-1. Existing Dock and Berth Facilities for the Commercial Fishing Industry in Bodega Harbor

<i>Facility</i>	<i>Number</i>
Berths	210
Tie-ups	45-50
Moorings (dock or marina)	30-35 (year round)
Boats anchored in outer bay during salmon season	10-50
Boat size range	18-65 feet
Unloading docks	5
Fuel docks	3
Ice and blower stations	4
Haul-out areas	1 (under 40 feet)
Dry docks	1
Repair areas	3 (small)
Launch ramps	1 private (small), 2 public

Public dock and berth facilities are provided at Doran County Park, Westside County Park, and Bodega Bay Dunes State Beach. Other facilities at Bodega Bay include The Tides Wharf and Lucas Wharf, multifaceted facilities with a hotel, restaurant, and fish market where hundreds of vessels offload their catch each year; a U.S. Coast Guard Search and Rescue Base on the navigation channel; and the University of California Bodega Marine Life Reserve on the west side of the harbor.

The Rivers and Harbors Act of 1938 authorized the federal project improvements in Bodega Harbor. Completed in 1943, these federal improvements provided a bulkhead to retain the sand spit; an entrance channel 100 feet wide and 12 feet deep protected by two jetties; a navigation channel of the same dimensions about 16,020 feet long to the town of Bodega Bay that continues southeast about 4,200 feet along the shore; and three turning basins. Additional federal projects authorized in 1965 and completed in 1975 provided a concrete pile breakwater at Spud Point and an access channel from the existing federal navigation channel to a proposed local marina. The Sonoma County Regional Parks Department (County Regional Parks) completed Spud Point Marina in 1985, which consists of 244 berths and the facilities identified in the Master Plan, with the addition of a laundromat and restrooms with showers.

County Regional Parks) operates three County facilities at Bodega Bay: Spud Point Marina, Mason’s Marina, and the Sport Fishing Center. The commercial fishing industry has been in decline for over a decade, and the loss of berthing revenue and other fees has resulted in deferred maintenance at these facilities.

Bodega Harbor Maintenance Dredging

Continued use and expansion of the existing facilities in Bodega Harbor depend on future maintenance dredging of the federal navigation and local channels and marinas. Under the Rivers and Harbors Act of 1938, the United States Army Corps of Engineers (Corps of Engineers) is authorized to continue operations and maintenance dredging of the federal navigation channel in Bodega Harbor. The Operations and Maintenance Dredging Program of the Corps of Engineers is responsible for maintaining safe federal navigation channels and harbors, thus is responsible for maintaining the federal projects described above.

Dredge Spoils Disposal Sites. A variety of sites have been used or evaluated for disposal of dredge spoils from Bodega Harbor, including the Old Airport Disposal Site, Westside Park, Doran Spit, outer Bodega Bay, and just north of Bodega Harbor.

In 2017 the Corps selected the San Francisco Deep Ocean Disposal Site located about 65 nautical miles offshore from Bodega Harbor. The current capacity of the SF-DODS far exceeds Bodega Bay Harbor's current and estimated future disposal needs for the next 25 years.

Marine Debris

Marine debris is trash found in the oceans or along its shores. The source of marine debris can be classified as either ocean-based or land-based depending on where it enters the water. Ocean-based marine debris is waste that is disposed of in the ocean by ships, recreational boats, and petroleum rigs and platforms. Land-based debris is debris that blows, washes, or is discharged into the water from land. Studies estimate that about two thirds of marine debris enters the water from land. Contributors include recreational beach users, people who drop litter on sidewalks and streets, plastics manufacturers and transporters, inadequate sewage treatment operations, and illegal dumping.

Debris in the marine environment means hazards for humans and wildlife. It endangers the safety of beach visitors and scuba divers and endangers the safety and livelihood of fishermen and recreational boaters. Beach visitors have required stitches from stepping on broken pieces of glass and metal buried in the sand, and scuba divers have become entangled in lost fishing gear. Nets and monofilament fishing line can obstruct boat propellers and plastic sheeting and bags can block boat engine cooling intakes. Such damage is hazardous and costly in terms of repair and lost fishing time.

State and Federal Programs. The California Coastal Commission and NOAA have Marine Debris Programs. The NOAA Marine Debris Program supports national and international efforts to research, prevent, and reduce the impacts of marine debris. It serves as a centralized capability within NOAA, coordinating and supporting activities within NOAA and with other federal agencies, as well as using partnerships to support projects carried out by state and local agencies, tribes, non-governmental organizations, academia, and industry. The NOAA Marine Debris Program has launched the Marine Debris Clearinghouse, a new online tool for tracking and researching marine debris projects and resources. Currently this database allows users to browse or search records of past, current, and future projects which are funded by the Marine Debris Program and focus on marine debris removal, research, and outreach. NOAA plans to expand this database to include information from federal partners and the broader marine debris community. The site will grow to include a library of best practices, regional action plans, technical documents, and papers that reflect the state of knowledge of a given topic area within the study of marine debris.

The California Coastal Commission Marine Debris Program consists of California Coastal Cleanup Day, the Adopt-A-Beach program, public education about marine debris, and collaboration with state and regional agencies on developing new programs and policies to help prevent and reduce marine debris. Every year on the third Saturday in September, people join together at sites all over California to take part in the State's largest volunteer event, California Coastal Cleanup Day, organized by the California Coastal Commission and Coastwalk. Families, friends, coworkers, scout troops, school groups, service clubs, and individuals come together to celebrate and share their appreciation of

California's beautiful coast and waterways. California Coastal Cleanup Day is part of the larger International Coastal Cleanup, the largest volunteer event on the planet.

GOAL C-OSRC-6: Support the commercial fishing industry in Bodega Bay. Protect and conserve the quality of ocean, marine, and estuarine environments for their scenic, economic, and environmental values.

Objective C-OSRC-6.1: Provide adequate facilities and services to serve the commercial fishing industry in Bodega Bay.

Objective C-OSRC-6.2: Conduct dredging in a manner that minimizes impacts on the ocean, marine, and estuarine environments.

Objective C-OSRC-6.3: Conduct the disposal of dredged material in a manner that minimizes impacts on the ocean, marine, estuarine, and terrestrial environments; and minimizes impacts to groundwater and water supply.

Objective C-OSRC-6.4: Support the Marine Debris Programs of the National Oceanic and Atmospheric Administration and California Coastal Commission.

The following policies, in addition to those in the Agricultural Resources Element, Land Use, Water Resources Element, and Public Safety Element shall be used to achieve these objectives:

Commercial Fishing Industry Facilities

Policy C-OSRC-6a: Encourage the development of support facilities and the provision of support services for the commercial fishing industry, including fish processing, in areas designated Marine Industrial on the Land Use Plan Map. (EXISTING LCP REVISED)

Policy C-OSRC-6b: Marina development in Bodega Bay will be reviewed based on the following: 1) a review of the Bodega Harbor operations, with special emphasis on whether activities that do not depend on a harbor location can be relocated to preclude or minimize the need for additional dredging and filling; and 2) an assessment of the adequacy of the fisheries resources to support such expansion; and 3) that the resources would not be harmed by increasing the availability of berths for the commercial fishing industry. (EXISTING LCP REVISED)

Policy C-OSRC-6c: Encourage the development of additional support facilities and the provision of additional support services at Spud Point Marina necessary to adequately serve the commercial fishing industry. (EXISTING LCP REVISED)

Bodega Harbor Dredging Regulations

Policy C-OSRC-6d: Dredging shall be required to occur only in the winter, when most marine and estuarine animals are not migrating or spawning and are least sensitive to turbidity. (EXISTING LCP REVISED: RECOMMENDATION 77 ON PAGE 34 AND RECOMMENDATION 13 ON PAGE 123)

Policy C-OSRC-6e: The deposition of fill or dredge spoils in Bodega Harbor shall be prohibited, except according to Section 30233 of the California Coastal Act. (EXISTING LCP REVISED)

Commented [A36]: See previous comments re: including relevant Coastal Act policies in full in chapter.

Policy C-OSRC-6f: The deposition of dredge spoils shall be prohibited outside Bodega Harbor in Bodega Bay east of the line extending from the tip of Tomales Point, to the tip of Bodega Head. (EXISTING LCP REVISED)

Policy C-OSRC-6g: Approval of a detailed reclamation plan shall be required for a dredge spoils disposal site prior to commencing any dredging that would generate dredge spoils to be disposed of at that site. (EXISTING LCP REVISED)

Policy C-OSRC-6h: Consider sea level rise adaptation strategies when evaluating dredge disposal options and evaluate the feasibility of using dredge material for beach sand augmentation and dune restoration. (NEW)

Upland Disposal Sites

Policy C-OSRC-6i: Any dredge spoils disposal project shall be designed and implemented to protect groundwater resources and existing and potential domestic water supplies, and to be consistent with all policies of this Local Coastal Plan for protection of wetlands and other Environmentally Sensitive Habitat Areas (ESHA). (EXISTING LCP REVISED)

Policy C-OSRC-6j: Route the dredge spoils conveyance pipeline to upland disposal sites from Bodega Harbor along the right-of-way of existing roads, where possible. (EXISTING LCP REVISED)

Policy C-OSRC-6k: Riparian corridors at dredge disposal sites shall be protected. Diked ponds for disposal of dredge spoils shall be sited and designed to avoid the riparian area, such that no dredge spoils would be deposited in the drainage and no runoff would enter the drainage or the freshwater wetland; and to be consistent with all policies of this Local Coastal Plan for protection of wetland and other Environmentally Sensitive Habitat Areas (ESHAs). (EXISTING LCP REVISED)

Policy C-OSRC-6l: At upland disposal sites, the operation of construction equipment across drainages between dredge spoils disposal ponds shall be limited to one haul road. Following the disposal of dredge spoils and consistent with all policies of this Local Coastal Plan for protection of wetland and other Environmentally Sensitive Habitat Areas (ESHAs), the road shall be removed, the area shall be regraded to natural drainage contours, and vegetation shall be re-established. (EXISTING LCP REVISED)

Policy C-OSRC-6m: A reclamation plan shall be implemented for any upland disposal site which assures rapid re-establishment of vegetation, minimize visual impacts, and improve wildlife habitat, consistent with all policies of this Local Coastal Plan for protection of wetland and other Environmentally Sensitive Habitat Areas (ESHAs). (EXISTING LCP REVISED)

Policy C-OSRC-6n: Prior to approval of a plan for a large, one-time dredge spoils disposal at the Old Airport Disposal Site, a full evaluation shall be required of the potential visual, water quality, and reclamation issues associated with raising the dikes to accommodate the dredge spoils. (EXISTING LCP REVISED)

Policy C-OSRC-6o: The rare plants in the marsh south of the Old Airport Disposal Site shall be protected during the course of any construction on the site. (EXISTING LCP REVISED)

Policy C-OSRC-6p: The Old Airport Disposal Site shall be reclaimed and restored to the maximum extent feasible following each maintenance dredging. (EXISTING LCP REVISED)

5 SOIL RESOURCES POLICY

Soil resources policy is to maintain soil productivity and prevent lands with productive soils from converting to non-resource uses, and to promote soil management and conservation practices that will maintain productivity of those lands.

5.1 AGRICULTURAL AND TIMBER SOILS

Important farmland soils on the Sonoma County coast include grassland suitable for sheep and cattle grazing along the coastal terrace and lower slopes on the North Coast and throughout the County coast south of Jenner. Soil, climate, topography, and water combine to make these lands highly productive agricultural areas. Important timberland soils on the County coast are located primarily north of Russian Gulch and in the Willow Creek watershed.

GOAL C-OSRC-7: Encourage the conservation of soil resources to protect their long-term productivity and economic value.

Objective C-OSRC-7.1: Preserve lands containing prime agricultural and productive woodland soils and avoid their conversion to incompatible residential, commercial, or industrial uses.

The following policies, in addition to those in the Land Use and Agricultural Resources Elements, shall be used to achieve these objectives:

Policy C-OSRC-7a: Apply the Agriculture land use category to areas with productive agricultural soils. (GP2020)

Policy C-OSRC-7b: Apply the Timber land use category to all lands with timberland production zoning. (GP2020)

5.2 SOIL EROSION

Although some types of soils are more susceptible to erosion, all soils benefit from conservation practices. Erosion results in the loss of topsoil which may reduce crop yields and cause sedimentation problems downstream. Sediment can fill reservoirs and stream channels, reduce water quality and

storage capacity, and damage fish and wildlife habitats. Susceptibility to soil erosion is highest in areas with a combination of high rainfall, lack of cover, erodible soils, and steep slopes. Activities which may increase erosion include urban development, road and general construction activities, logging, mining, agriculture, and recreational activities.

Hillside cultivation and overgrazing are a particular concern in agricultural areas. Measures are needed to reduce erosion. However, erosion protection measures may not always be cost effective for the landowner.

GOAL OSRC-8: Promote and encourage soil conservation and management practices that maintain the productivity of soil resources.

Objective C-OSRC-8.1: Ensure that permitted uses are compatible with reducing potential damage due to soil erosion.

Objective C-OSRC-8.2: Establish ways to prevent soil erosion and restore areas damaged by erosion.

The following policies, in addition to those in the Agricultural Resources Element, shall be used to achieve these objectives:

New Development Design Standards

Policy C-OSRC-8a: Coastal Development Permits shall be subject to the following requirements for reducing erosion and erosion control:

- (1) Projects shall be designed so that structures and roads are not located on steep slopes.
- (2) Erosion control measures shall be incorporated as part of projects involving construction or grading near waterways or on lands with slopes over 10 percent.
- (3) A soil conservation program shall be incorporated as part of projects which could increase erosion of waterways or hillsides.
- (4) New roads and driveways for residential, ranch, and timber harvest uses shall be designed and constructed to retain natural vegetation and topography to the extent feasible.
- (5) Improvements near waterways or in areas with a high risk of erosion as as determined by a site specific analysis shall be noted in the Sonoma County Soil Survey shall be designed and constructed to retain natural vegetation and topography to the extent feasible. (GP2020) (EXISTING LCP REVISED: RECOMMENDATION 49 ON PAGE 31, RECOMMENDATIONS 11-12 ON PAGE 38, RECOMMENDATION 40 ON PAGE 31, RECOMMENDATIONS 52-53 ON PAGE 32, AND RECOMMENDATION 11 ON PAGE 54)

Commented [A37]: Please define "Steep Slopes" here. Previous versions stated steep slopes as a 30% inclined slope or greater.

Commented [A38]: The LCP should not rely on outside documents.

Policy C-OSRC-8b: Continue to enforce the County Building Code to reduce soil erosion and slope instability problems. (GP2020)

6 TIMBER RESOURCES POLICY

6.1 BACKGROUND

The following section of the 1976 California Coastal Act applies to timberlands:

Section 30243. The long-term productivity of soils and timberlands shall be protected, and conversions of commercial timberlands in units of commercial size to other uses or their division into units of non-commercial size shall be limited to providing for necessary timber processing and related facilities.

Timberland Resources

Forests and woodlands provide a number of aesthetic and ecological benefits such as wildlife habitat, watershed protection, scenic views, and recreation. These forest values are important to the quality of the environment and life in the County and are addressed in the Water Resources Element and other sections of this Open Space and Resource Conservation Element.

Forests also provide commercial timber as a renewable resource. Sonoma County is unique among counties in California in having a majority (94 percent) of the timberlands as privately owned. In Sonoma County timberlands are predominantly in the northwest part of the County. There are about 232,000 acres of timberland in the County. About 20,500 acres of the 232,000 acres of timberland in the County are on the County coast. These timberlands are comprised of about 14,000 acres of Site Class IV soils and about 6,500 acres of Site Class I, II, and III soils combined. Site Class is a reference to the productivity of timberland, determined by the interaction of soil fertility and climate; the lower the site class, the greater the timberland productivity.

About 75 percent of the land on the Sonoma County coast is used as timberland, sheep and cattle grazing land, or dairy land. The Coast is equally divided between land suitable for timber production and land suitable for grazing or pasture.

The County coast exhibits the diversity of tree species found throughout the County. Soil, climate, topography, and human activity are the important factors which determine the growth and distribution of tree species. Redwood predominates in the coastal fog belt, with Douglas fir and grand fir the other principal forest trees. Commercial forest on the Coast is found primarily north of Russian Gulch and in the Willow Creek watershed. Forests occur generally east of State Highway 1 and in coastal gulches. Commercial hardwood harvesting of tan oaks is becoming more important for masonite chips, firewood, and the crafts industry. Other native, generally non-commercial trees on the Coast are Bishop pine, oak, madrone, bay, and the southern extent of the pygmy forest in California. Rows of eucalyptus and cypress trees have been planted as a buffer against the wind, and fast growing Monterey pine screen many homes from the view of State Highway 1. Dense forests of these trees have been planted by the developers of The Sea Ranch and Timber Cove subdivisions.

Both the economic and natural values of coastal woodlands and forests are recognized in the policies and regulatory mechanisms included in the Local Coastal Plan. For purposes of the regulations discussed below, timberlands are generally considered to be those lands which are capable of and available for growing a commercial species of timber such as redwood and Douglas fir.

Timberland Regulations

1973 Forest Practices Act. In 1973 the Z'berg-Nejedly Forest Practices Act was established, setting up the rules for the California Department of Forestry and Fire Protection (CalFire) to follow with respect to timber harvesting. Timber Harvest Plans (THPs) must be filed with CalFire in most instances when trees are logged. CalFire is the lead agency responsible for approving and ensuring compliance of THPs with the Forest Practices Rules and other applicable regulations. A conversion permit must be obtained from CalFire to convert timberland to a non-timber use; approval of conversion permits for the Coastal Zone is very unlikely.

CalFire regulates the silvicultural activities related to THPs. Forest Practice Rules are established for different geographical areas of the State. The Coast Forest District Rules apply to most of Sonoma County. The California Coastal Commission's Special Treatment Area Rules apply to Special Treatment Areas designated within the Coastal Zone. The State Board of Forestry has the authority to amend either the Forest Practice Rules or the geographical districts to which they are applied.

Most THPs filed for the Coastal Zone are for timber harvests of less than 100 acres. CalFire indicates that 52 THPs have been filed for the Sonoma County coast since 1983. Although the number of THPs filed for the Sonoma Coast is not as great as in adjacent Mendocino County, the coastal timber resource is significant locally.

Timberland Production (Preserve) Zones. In 1976 the California Legislature adopted the Forest Taxation Reform Act. That Act required counties to provide for the zoning of parcels used for the growing and harvesting of timber as Timberland Preserve Zones (TPZs). A TPZ restricted the use of the land to the growing and harvesting of timber and compatible uses approved by the County in return for tax assessment benefits. Subsequently in the late 1970s the County designated many parcels TPZ.

In 1982 the California Legislature adopted the California Timberland Productivity Act. That Act required counties to designate and zone lands for the primary use of timber production in order to protect properly conducted timber operations from being prohibited or restricted due to conflict or apparent conflict with surrounding land uses. The County applied local Timberland Production (TP) zoning to all parcels previously placed in the TPZs under the 1976 Forest Taxation Reform Act. There are about 20,500 acres of timberland in the Coastal Zone of which approximately 11,000 acres are zoned TP the remainder is zoned RRD (Resources and Rural Development).

Rezoning timberland parcels to TP establishes ten-year use restrictions and the requirement for a forest management plan which should provide for timber harvesting within a reasonable period of time and set timber restocking standards. Sonoma County's implementing TP Ordinance allows parcels of 40 acres or more of Site Class I and II soils, and 80 acres or more of Site Class III and IV soils to be zoned TP. The annual tax paid on acreage of timberland zoned TP is based on the value of the land without the standing timber and is substantially less than if zoned at fair market value. Taxes on the value of the cut timber are paid at the time of harvest.

Sonoma County's TP Ordinance sets a minimum residential density of one dwelling per 160 acres (with a maximum of four dwellings per parcel where allowed by the 160-acre density). This number is set by the State law on TP zones. Parcels this size are intended to encourage timber management or sale to an owner wishing to manage the land for timber production. Creation and sale of smaller

parcels, such as 40 or 80 acres, after the seller has cut as much timber as possible prior to the sale, may make the parcels undesirable for sustained timber management. Smaller parcels are less viable for timber management and encourage greater residential conflicts. The larger the parcel, the better the chance for long-term timber production.

Timberland Environmental Impacts

Pressures on timberland include rural development, agricultural conversions, and increased public scrutiny regarding the potential impacts associated with logging operations, particularly near streams. These issues can affect both the economic feasibility of the timber industry and/or the long term availability of timber resources.

Logging activities, if improperly managed, can be detrimental to the forest environment, including loss of riparian habitat and soil erosion, and a resulting diminishing of all forest values. Sustainable logging practices and forest management should result in a forest resource which regenerates itself and allows for perpetuating related forest values. Keeping forest lands in production and preventing a further incursion of incompatible adjacent lands uses will benefit the public and the timber industry.

State law gives primary regulatory responsibility for timber operations to CalFire, limiting the Local Coastal Plan land use authority. However, the Local Coastal plan does have authority to establish policies that maintain a sustainable supply of timber resources in the future by reducing the potential for converting timberland to incompatible uses.

GOAL C-OSRC-9: Preserve, sustain, and restore forestry resources for their economic, conservation, recreation, and open space values.

Objective C-OSRC-9.1: Identify and preserve areas with timber soils and commercial timber stands for timber production. Reduce incompatible uses and the conversion of timberlands to agriculture and other uses which effectively prevent future timber production in these areas.

Objective C-OSRC-9.2: Minimize the potential adverse impacts of timber harvesting on economic, conservation, recreation, and open space values; and restore harvested areas to production for a future yield.

The following policies, in addition to those in the Land Use Element, shall be used to achieve these objectives:

Policy C-OSRC-9a: A Coastal Permit shall not be required for timber harvesting in accordance with a timber harvest plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practices Act of 1973 and regulated by the Forest Practices Act and the California Department of Forestry and Fire Protection. (EXISTING LCP REVISED)

Policy C-OSRC-9b: Apply the Timber land use category to designate all lands in a Timberland Production Zone and adjacent parcels with timber soils or commercial timber stands. (GP2020)

Policy C-OSRC-9c: Review all timber harvest plans for compatibility with Local Coastal Plan policies and economic viability of the industry. (GP2020)

Policy C-OSRC-9d: Where applicable, comment on timber harvest plans in support of increased protection of Class III streams. (GP2020)

Policy C-OSRC-9e: Review timber harvest plans adjacent to designated Riparian Corridors and request that clear cutting not occur within streamside conservation areas. Where clear cutting along designated Riparian Corridors is approved by the applicable state or federal agency, ensure that at least 50 percent of the overstory canopy and at least 50 percent of the understory vegetation be retained. (GP2020)

Policy C-OSRC-9f: The primary use within the Timber Preserve land use shall be increasing or enhancing timber production. Very low density residential development may be allowed if development does not conflict with the primary use of timber production. A land use amendment shall be required for conversion of timberlands to other uses. (NEW)

7 MINERAL RESOURCES POLICY

Within the Coastal Zone, Bodega Bay Quarry, formerly Cheney Gulch Quarry, was the only active mining operation in the Coastal Zone. The mine operated for about 60 years, but is no longer active and was released and reclaimed in 2012. Although inactive and reclaimed, the State Mining and Geology Board identifies remaining sandstone deposit at this site as regionally significant for construction grade aggregate and a priority site for aggregate production, and by law Sonoma County must manage the conservation and development of identified mineral deposits, such as construction grade aggregate.

The potential impacts of mining activities include, but are not limited to, noise, dust, air emissions, truck traffic, erosion, siltation, and loss of agricultural land. These impacts create potential conflicts with nearby residential, agricultural, and recreational uses and may damage or degrade terrestrial and marine ecosystems in the coastal zone.

GOAL C-OSRC-10: Provide for production of aggregates to meet local needs and contribute the County's share of demand in the North Bay production-consumption region. Manage aggregate resources to avoid needless resource depletion and ensure that extraction results in the fewest environmental impacts.

Objective C-OSRC-10.1: Use the Aggregate Resources Management Plan to establish priority areas for aggregate production and to establish detailed policies, procedures, and standards for mineral extraction.

Objective C-OSRC-10.2: Minimize and mitigate the adverse environmental effects of mineral extraction and reclaim mined lands.

The following policies, in addition to those in the Land Use Element, shall be used to achieve these objectives:

Policy C-OSRC-10a: Consider areas designated by the State Mining and Geology Board as regionally significant for construction grade aggregate as priority sites for aggregate production and mineral extraction. Within the Coastal Zone, these areas are currently limited to sandstone deposits located in Cheney Gulch, approximately 2.5 miles east of Bodega Bay in western Sonoma County.² Review requests for designation of additional areas for consistency with the Coastal Act, Local Coastal Plan, and the Aggregate Resources Management (ARM) Plan. (GP2020 REVISED)

Policy C-OSRC-10b: Review aggregate production projects for impacts coastal resource, including, but not limited to preservation of visual resources, and impacts to natural resources such as topsoil salvage loss, vegetation removal, impacts to terrestrial and marine ecosystems, noise, water quality, maintenance and safety of Highway 1, energy consumption, and air quality. Additionally, the project must demonstrate that an economic need exists for aggregate materials produced at the site and that full reclamation of the site is feasible and that reclamation will fully restore ecological function of the site to that which existed prior to any mining operation. (GP2020 REVISED)

Policy C-OSRC-10c: Review projects that are on or near sites designated Mineral Resources in the Aggregate Resources Management Plan for compatibility with future mineral extraction. (GP2020)

8 ENERGY RESOURCES POLICY

8.1 BACKGROUND

Residents, visitors, and businesses to the Sonoma Coast consume energy in many forms and for many uses, but primarily oil and gas for transportation due to the reliance on automobiles, lack of public transit, and long distances to destinations.

Climate Change

Climate change is creating and will continue to create adverse impacts to coastal resources by increased in temperature, precipitation, sea level, wildfires and the frequency and severity of extreme storm events. These changes will also affect energy use and will create challenges in developing renewable energy sources but there is insufficient research at this point to evaluate these challenges. Impacts will depend on how wind and cloud cover patterns change, which are very difficult to project using current climate models.

Commented [A39]: The discussion on SLR, Storm Surge, and Extreme Events was removed and should be reincorporated into this document.

² This area is identified as Sector Q in the 1987 Department of Conservation, Division of Mines and Geology report, entitled *Mineral Land Classification: Aggregate Materials in the San Francisco - Monterey Bay Area: Special Report 146, Part 3: Classification of Aggregate Resource Areas: North San Francisco Bay Production-Consumption Region*.

Water Availability and Energy. Energy is needed to pump, transport, and treat drinking water and wastewater. Rising temperatures, increased evaporation, and drought may increase the need for energy-intensive methods of providing drinking and irrigation water such as desalinization. This process makes ocean water potable by removing salt, but the process consumes significant amounts of energy and disposal of waste salt may disrupt marine ecosystems.

Transportation Impacts. Damage to the road network in the Coastal Zone will increase as sea level rises and storm events become increasingly severe. Wildfire events are increasing in size and frequency. Significant portions of Highway 1 are at risk from sea level rise, wildfire, and landslides. Past efforts to armor and reinforce Highway 1 against the impacts of climate change have proven ineffective, and a program of managed retreat is necessary to protect this critical transportation link.

Wind Speed, Cloud Cover, and Renewable Energy. Climate change could impact wind and solar power, but there is little research in this area. Impacts will depend on how wind and cloud cover patterns change, which are very difficult to project using current climate models.

8.2 ENERGY CONSERVATION AND DEMAND REDUCTION

Reducing energy demand can be achieved in many ways. Land use strategies include compact development form and promoting mixed uses. Energy used for transportation can be reduced through increased use of pedestrian and bicycle travel, public transit, and renewable energy sources. Other strategies include improved construction standards and agricultural practices, solid waste management, and education.

GOAL C-OSRC-11: Promote energy conservation and contribute to energy demand reduction.

Objective C-OSRC-11.1: Increase energy conservation and improve energy efficiency in government operations, especially facilities that provide coastal access. (REVISED)

Objective C-OSRC-11.2: Encourage residents and businesses to increase energy conservation and improve energy efficiency.

Objective C-OSRC-11.3: Reduce the generation of solid waste and increase solid waste reuse and recycling.

Objective C-OSRC-11.4: Reduce greenhouse gas emissions.

The following policies, in addition to those in the Land Use and Circulation and Transit Elements, shall be used to achieve these objectives:

Policy C-OSRC-11a: The latest green building certification standards, such as the CalGreen Tier 1 standards, shall be used for new development, including redevelopment. (GP2020)

Policy C-OSRC-11b: Require the water and wastewater service providers to reduce energy demand from their operations. (GP2020 REVISED)

Commented [A40]: There were a large set of benchmarks and polices from previous drafts that were removed here. Please provide an explanation as to why they were removed, or return them to this draft.

Policy C-OSRC-11c: Support project applicants in incorporating cost effective energy efficiency design that exceeds State standards. (GP2020 REVISED)

Policy C-OSRC-11d: Manage timberlands for their value both in timber production and offsetting greenhouse gas emissions. (GP2020)

8.3 ENERGY PRODUCTION AND SUPPLY

Energy production in Sonoma County is dominated by the electricity generated from geothermal resources at The Geysers. This source generates about 5,000,000 megawatt-hours per year. Additional sources include hydroelectric power, methane gas, and solar photovoltaics. Additional opportunities exist for individual and small scale production from other renewable energy sources such as solar, wind, and biomass, but these sources must be developed in a way that coastal resources are not impacted. Small scale solar energy production has the lowest potential for impacts, as wind energy will impact visual resources and create hazards for bird. Small scale biomass energy generation may offer future potential, but cost and limited local availability of biomass fuels in the Coastal Zone make it uncertain if this energy source is viable in the Coastal Zone.

GOAL C-OSRC-12: Contribute to the supply of energy primarily by increased reliance on renewable energy sources.

Objective C-OSRC-12.1: Increase the development of renewable energy and distributed energy generation systems and facilities for state and local government operations including, but not limited to state and regional parks, fire stations, and Caltrans maintenance facilities. (REVISED)

Objective C-OSRC-12.2: Promote the use of renewable energy and distributed energy generation systems and facilities in new development.

Objective C-OSRC-12.3: Establish guidelines and standards for development of energy generation systems and facilities.

Objective C-OSRC-12.4: Encourage exploration of the extent and potential use of hot water geothermal resources.

The following policies, in addition to those in the Land Use and Circulation and Transit Elements, shall be used to achieve these objectives:

Policy C-OSRC-12a: The use of low temperature geothermal resources shall be allowed in all land use designations if it can be demonstrated that it will be compatible with surrounding land uses, not degrade coastal views, and is not located within an Environmentally Sensitive Habitat Area (ESHA). (GP2020 REVISED)

Policy C-OSRC-12b: Require development of renewable energy and distributed energy generation systems and facilities for state and local government facilities and operations. (GP2020 REVISED)

Policy C-OSRC-12c: Encourage and promote the use of renewable energy and distributed energy generation systems and facilities that are integral to and contained within existing and new development (e.g., solar thermal installations to provide space and water heating or solar electric installations for small commercial buildings or residences in rural areas, small wind energy systems to provide electricity to agricultural accessory structures, etc.) that do not impact ESHA, public access, or coastal views. (GP2020 REVISED)

9 AIR RESOURCES POLICY

Air pollutants include both gases and particulates. The automobile is the most common source of smog. Particulates come from residential, industrial, and agricultural sources, mainly during grading and construction activities. Wildfires contribute large amounts of air pollutants, but this emission can only be controlled indirectly by fire fuel management and improved fire suppression.

Sources of air pollution are both stationary and mobile. Mobile sources, such as motor vehicles, produce most of the air pollutants in the County. Air pollution from mobile sources is regulated by the State through exhaust emissions standards, but can be reduced by proper management of the transportation system. The Geysers power plants are the largest stationary pollutant source. Other stationary sources include mining operations, industrial and agricultural activities, and lumber mills. Residential wood stoves are a contributor to particulate levels in urban areas in Northern Sonoma County.

Improved air quality and decisions on air quality standards and mitigation measures are balanced with competing interests for production efficiency, energy costs, and ease of transportation while meeting all the requirements of the state and federal Clean Air Acts.

The southern section of the Coastal Zone is within the jurisdiction of the Bay Area Air Quality Management District (Bay Area Air District) and the northern portion of the Coastal Zone is within the Northern Sonoma County Air Pollution Control District (Northern Air District).

The Bay Area Air District is currently designated as a nonattainment area for state and federal ozone standards, the state particulate matter (PM) 10 standard, and the state and federal PM 2.5 standard. The Bay Area Air District has adopted an Ozone Attainment Plan and a Clean Air Plan in compliance with Federal and State Clean Air Acts. These plans include measures to achieve compliance with both ozone standards. The plans deal primarily with emissions of ozone precursors (nitrogen oxides (NO_x) and volatile organic compounds, also referred to as Reactive Organic Gases (ROG)).

The Northern Air District does not have an adopted air quality plan because it is in attainment for all federal and state criteria pollutants, although the District occasionally exceeds state standards for PM₁₀.

GOAL C-OSRC-13: Preserve and maintain good air quality and provide for an air quality standard that will protect human health and preclude crop, plant, and property damage in accordance with the requirements of the state and federal Clean Air Acts.

Objective C-OSRC-13.1: Minimize air pollution and greenhouse gas emissions.

Objective C-OSRC-13.2: Encourage reduced motor vehicle use as a means of reducing resultant air pollution.

The following policies, in addition to those of the Circulation and Transit Element, shall be used to achieve these objectives:

Policy C-OSRC-13a: Development projects shall be designed to minimize air pollutant emissions. Direct emissions shall be reduced by using construction techniques that decrease the need for space heating and cooling. (GP2020)

Policy C-OSRC-13b: Proposed changes in land use shall be denied unless they are consistent with projected air quality levels. (GP2020)

Policy C-OSRC-13c: Any proposed new source of toxic air contaminants or odors shall provide adequate buffers to protect sensitive receptors and comply with applicable health standards. Buffering techniques such as landscaping, setbacks, and screening in areas where such land uses abut one another shall be used to promote land use compatibility. (GP2020)

Policy C-OSRC-13d: Residential units may only install fireplaces, woodstoves, or any other residential wood-burning devices that meet the grams-per-hour Environmental Protection Agency or Oregon Department of Environmental Quality wood heater emissions limits (exempt devices are not allowed). (GP2020)

10 IMPLEMENTATION PROGRAMS

The following programs and other initiatives, in addition to policies in this Public Safety Element and those in the Land Use, Public Facilities and Services and Water Resources Elements, shall be used to achieve the objectives of this Local Coastal Program.

10.1 OPEN SPACE AND RESOURCE CONSERVATION PROGRAMS

Program C-OSRC-1: Consider reviewing and updating **Figures C-OSRC-2a** through **2k** every five years to reflect documented occurrences or changes in such habitats. (GP2020 REVISED)

Program C-OSRC-2: Consider requesting official State Scenic Highway designation for State Highway 1.

Program C-OSRC-3: Develop a comprehensive program for preservation and restoration of the freshwater, brackish, and tidal marshes in the Coastal Zone. Include mechanisms for preservation and enhancement such as land acquisition; zoning restrictions; public and private conservation easements; regulating filling, grading, or construction; floodwater retention; and wetland restoration. (GP2020 REVISED)

Commented [A41]: These programs should be incorporated throughout the chapter under their relevant sections.

Program C-OSRC-4: Request that the State Department of Parks and Recreation carry-out the following activities to preserve rocky intertidal coastline:

- (1) Designate important rocky intertidal areas as a Marine Reserve or Ecological Reserve, and encourage public agencies or private groups to maintain these areas.
- (2) Designate the mouth and banks of the Estero Americano and its offshore area as an Ecological Reserve, representative of the coastal estuarine environment of Northern California; and
- (3) Encourage use of the public shoreline at Salt Point State Park, Kruse Ranch, and the non-historic areas of Fort Ross State Park to reduce pressure on the marine resources at Stillwater Cove Regional Park. (EXISTING LCP REVISED)

Program C-OSRC-5: Develop a mooring plan for Bodega Harbor. (EXISTING LCP)

Program C-OSRC-6: Revise the zoning districts of the Coastal Zoning Ordinance which implement the Timber land use category to be consistent with California Coastal Act Section 30243 to reduce the potential for conversion of coastal commercial timberlands in units of commercial size to non-timber uses or their division into units of non-commercial size. (GP2020)

Commented [A42]: See previous comments on stating relevant Coastal Act policies in full.

Program C-OSRC-7: In cooperation with the Coastal Commission, State Parks, and Cal Fire Board of Forestry, develop forestry guidelines including best practices to improve habitat health and reduce the risk of wildland fire without restricting public access to the coast. Establish a coastal permit exemption, other exemption process, or master plan for forestry maintenance activities consistent with such guidelines. (NEW)

Program C-OSRC-8: Develop a Greenhouse Gas Emissions Reduction Program to include the following as a high priority:

- (1) A methodology to measure baseline and future Vehicle Miles Traveled (VMT) and greenhouse gas emissions;
- (2) Targets for various sectors including existing development and potential future development of commercial, industrial, residential, transportation, and utility sources;
- (3) Collaboration with local, regional, and State agencies and other community groups to identify effective greenhouse gas reduction policies and programs in compliance with new state and federal standards;
- (4) Adoption of development policies or standards that substantially reduce emissions for new development;

- (5) Creation of a task force of key department and agency staff to develop action plans, including identified capital improvements and other programs to reduce greenhouse gases and a funding mechanism for implementation; and
- (6) Monitoring and annual reporting of progress in meeting emission reduction targets. (GP2020)

10.2 OTHER INITIATIVES

Other Initiative C-OSRC-1: In coordination with resource agencies, landowners, and the affected public, conduct a comprehensive study of the cumulative impacts of habitat fragmentation and connectivity loss and the effects of exclusionary fencing on wildlife movement. If warranted, identify essential habitat connectivity corridors and develop recommendations or policies to protect essential habitat corridors and linkages and to restore and improve opportunities for native plant and animal dispersal. (GP2020)

Other Initiative C-OSRC-2: Support voluntary programs for habitat restoration and enhancement, hazardous fuel management, removal and control of invasive exotics, native plant revegetation, treatment of woodlands affected by sudden oak death, use of fencerows and hedgerows, and management of biotic habitat. (GP2020)

Other Initiative C-OSRC-3: Support acquisition of conservation easements or fee title by the Sonoma County Agricultural Preservation and Open Space District of designated ESHA. (GP2020)

Other Initiative C-OSRC-4: Support non-regulatory programs for protection of streams and riparian functions, including education, technical assistance, tax incentives, and voluntary efforts to protect riparian resources. (GP2020)

Other Initiative C-OSRC-5: Recommend that the California Department of Fish and Wildlife carry-out the following activities to preserve Bodega Harbor Tideflats:

- (1) Establish a system in which sections of the tideflats on the west side of Bodega Harbor are open to shellfish harvesting on a rotating basis of every three to five years; and
- (2) Establish more restrictive bag and possession limits and gear restrictions for ghost shrimp (*Callinassa californiensis*), mud shrimp (*Upogebia pugettensis*), and blood worms (*Urechis caupo*). (EXISTING LCP REVISED)

Other Initiative C-OSRC-6: Promote and enhance the use of native plants and reduce non-native invasive plants in common areas and on private lots. Support property owners in their efforts to identify and eradicate non-native invasive plants and planting native plants. (NEW)

Other Initiative C-OSRC-7: Encourage landowners to voluntarily participate in a program that protects officially designated individual trees or groves that either have historical interest or significance or have outstanding size, age, rarity, shape or location. (GP 2020)

Other Initiative C-OSRC-8: Support the Marine Debris Programs of the National Oceanic and Atmospheric Administration (NOAA) and California Coastal Commission, including California Coastal Cleanup Day and Adopt-A-Beach Program. Use NOAA's Marine Debris Clearinghouse to identify best practices for preventing and reducing marine debris. Consider implementation of these best practices on the Sonoma County coast. (NEW)

Other Initiative C-OSRC-9: Encourage agricultural land owners to work closely with the Natural Resource Conservation Service (NRCS) and local Resource Conservation Districts to reduce soil erosion and encourage soil restoration. (GP2020) (EXISTING LCP REVISED)

Other Initiative C-OSRC-10: Request that the State Board of Forestry consider developing and enforcing Special Treatment Area stocking and clear cutting standards on all forest lands in the Coastal Zone. (EXISTING LCP REVISED)

Other Initiatives C-OSRC-11: Continue to support educational programs that promote energy conservation; energy efficiency; and solid waste reduction, reuse, and recycling opportunities for County operations, residents and businesses, and local utilities. (GP2020)

Other Initiative C-OSRC-12: Support Sonoma Clean Power's efforts to promote and implement renewable end distributed energy systems. (NEW)

Other Initiative C-OSRC-13: Encourage, support, and pursue grant funding for the preparation and periodic updating of Historic Resource Surveys. (GP2020)

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DRAFT

Figure C-OSRC-1a. Designated Scenic Resources Areas – SubArea 1 – The Sea Ranch North
(11x17)

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Figure C-OSRC-1b. Designated Scenic Resources Areas – SubArea 2 – The Sea Ranch South
(11x17)

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Figure C-OSRC-1c. Designated Scenic Resources Areas – SubArea 3 – Stewarts Point/Horseshoe Cove
(11x17)

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Figure C-OSRC-1d. Designated Scenic Resources Areas – SubArea 4 – Salt Point
(11x17)

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Figure C-OSRC-1e. Designated Scenic Resources Areas – SubArea 5 – Timber Cove/Fort Ross
(11x17)

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Figure C-OSRC-1f. Designated Scenic Resources Areas – SubArea 6 – Highcliffs/Muniz-Jenner
(11x17)

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Figure C-OSRC-1g. Designated Scenic Resources Areas – SubArea 7 – Duncans Mills
(11x17)

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Figure C-OSRC-1h. Designated Scenic Resources Areas – SubArea 8 – Pacific View/Willow Creek
(11x17)

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Figure C-OSRC-1i. Designated Scenic Resources Areas – SubArea 9 – State Beach/Bodega Bay
(11x17)

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Figure C-OSRC-1j. Designated Scenic Resources Areas – SubArea 9 – Bodega Bay Vicinity
(11x17)

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Figure C-OSRC-1k. Designated Scenic Resources Areas – SubArea 10 – Valley Ford
(11x17)

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Figure C-OSRC-2a. Environmentally Sensitive Habitat Areas (ESHA) – SubArea I – The Sea Ranch South
(11x17)

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Figure C-OSRC-2b. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 2 – The Sea Ranch South
(11x17)

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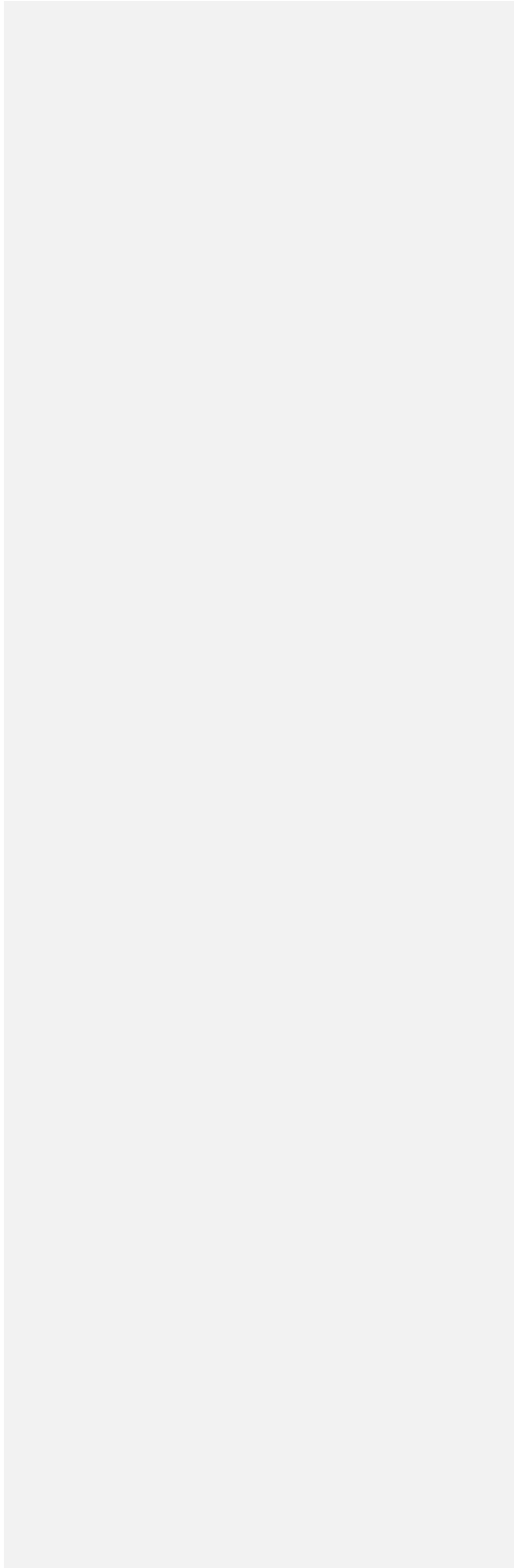


Figure C-OSRC-2c. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 3 – Stewarts Point/Horseshoe Cove

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Figure C-OSRC-2d. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 4 – Salt Point
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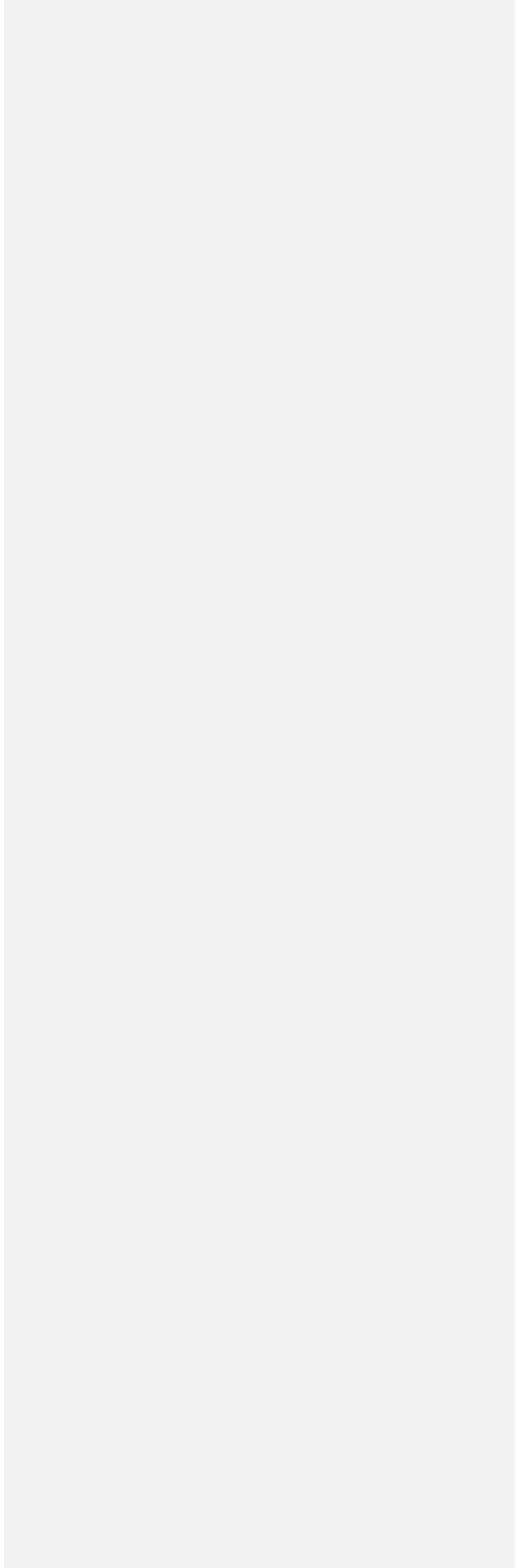


Figure C-OSRC-2e. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 5 – Timber Cove/Fort Ross
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Figure C-OSRC-2f. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 6 – Highcliffs/Muniz-Jenner
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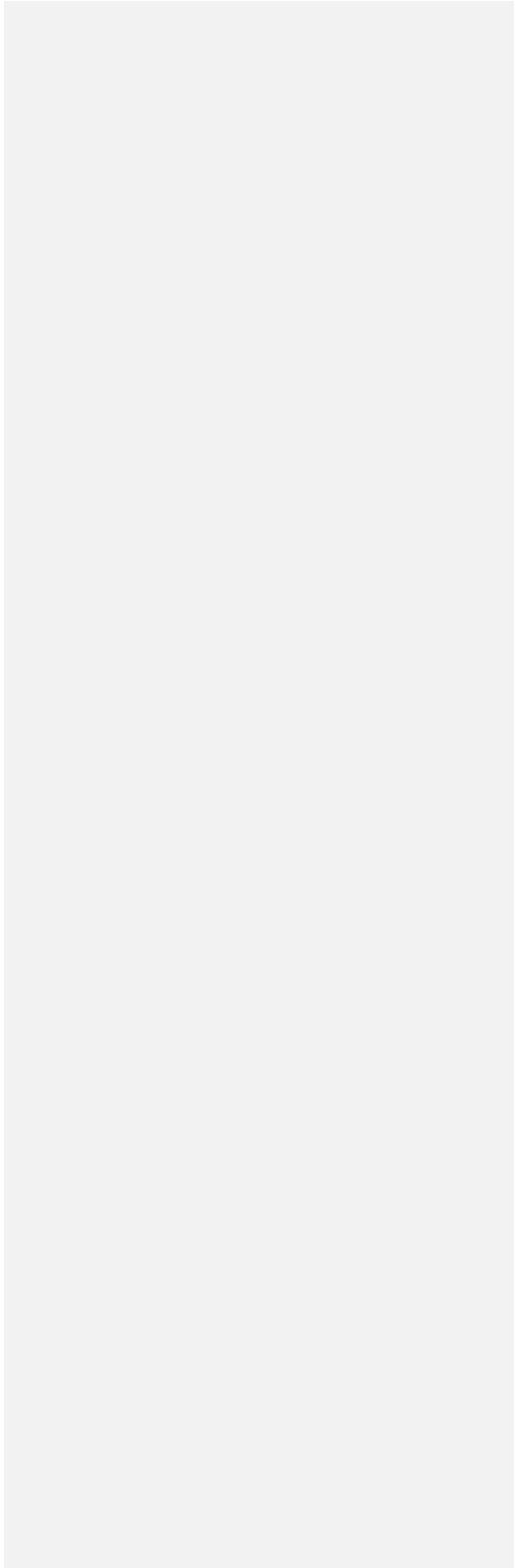


Figure C-OSRC-2g. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 7 – Duncans Mills
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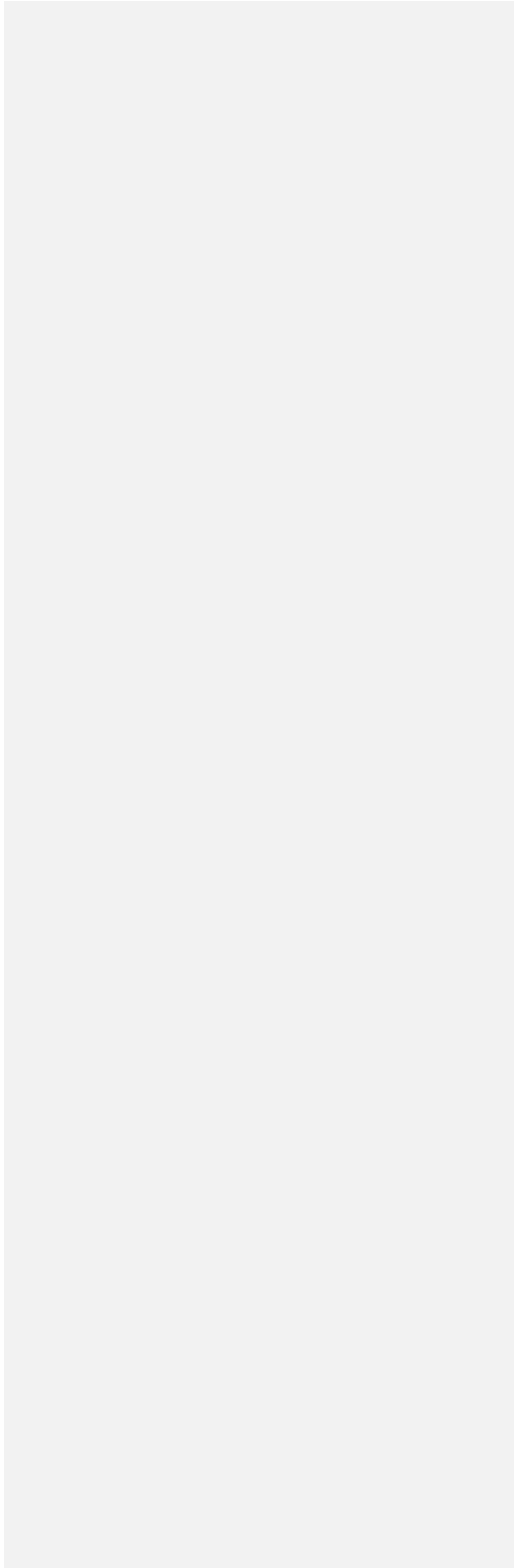


Figure C-OSRC-2h. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 8 – Pacific View/Willow Creek

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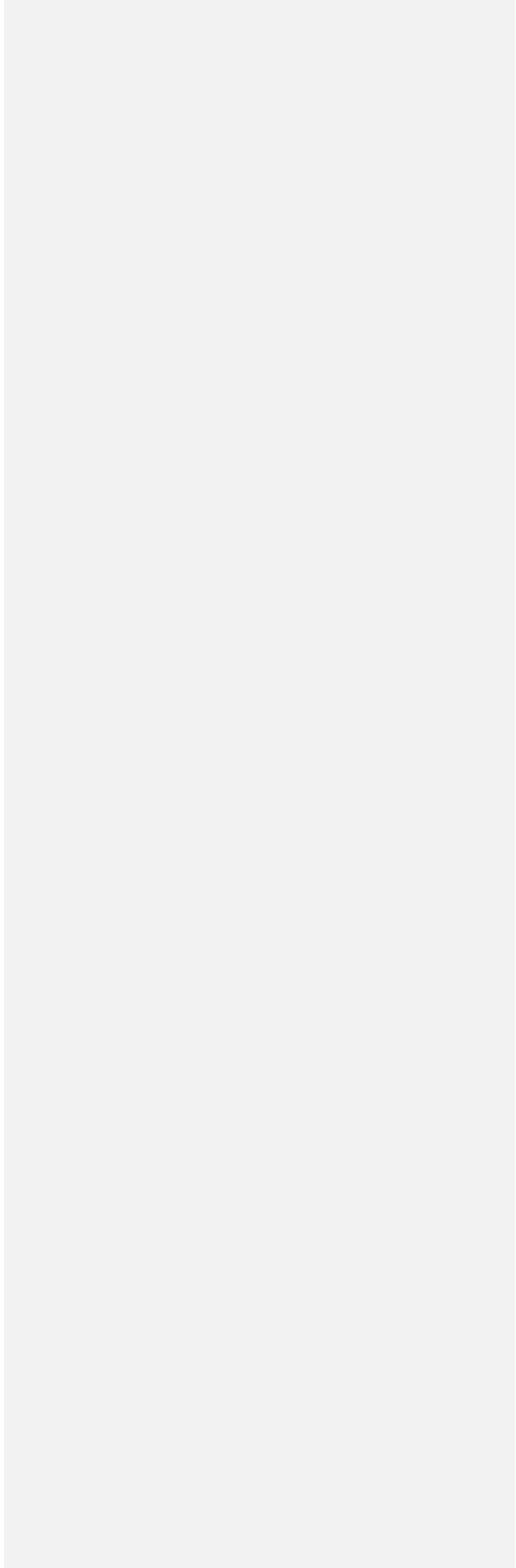


Figure C-OSRC-2i. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 9 – State Beach/Bodega Bay

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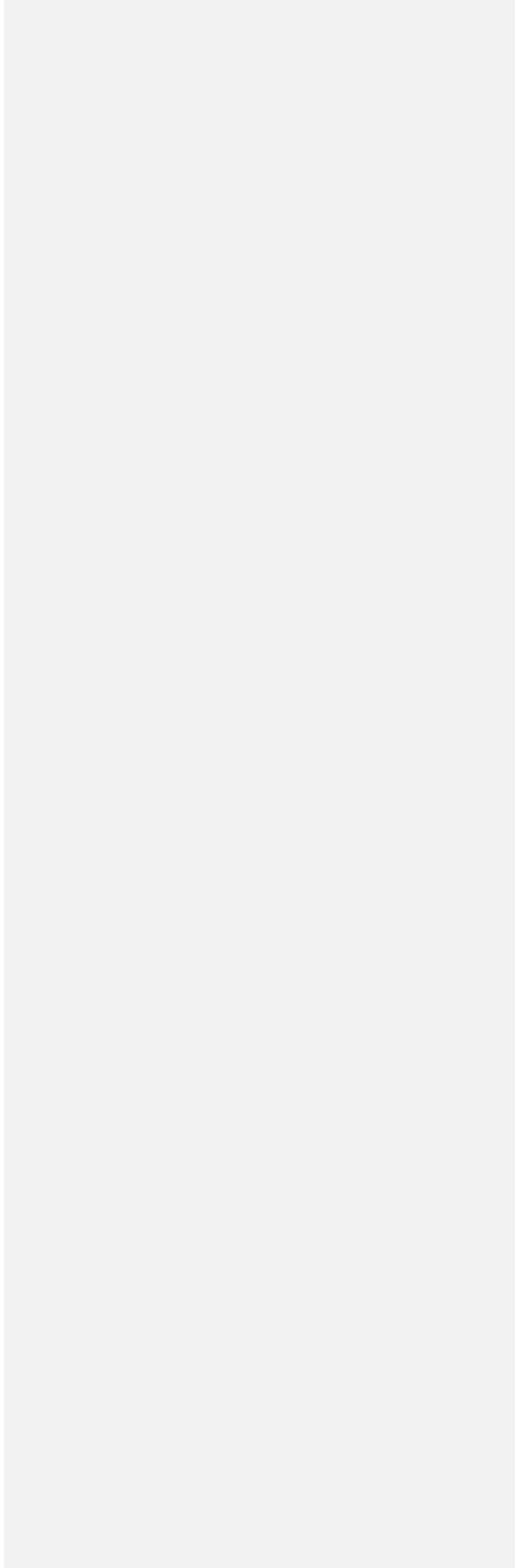
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Figure C-OSRC-2j. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 9 – Bodega Bay Vicinity
(11x17)

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Figure C-OSRC-2k. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 10 – Valley Ford
(11x17)

DRAFT



CALIFORNIA COASTAL COMMISSION

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February 23, 2022

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Public Access Chapter

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 5: Public Access.

- 1. Public Access Plan.** As the Public Access Plan (PAP) seems to be central to the public access policies, please include in the body of this chapter more details on how the PAP was formed, how the acquisition and development priorities were selected, and how the priority rankings were determined. In addition, please include any and all overarching themes, goals, and directives from the PAP in this LUP chapter. Due to its importance, the PAP should be incorporated into the chapter as much as is feasible. Finally, to make these policies more accessible to the reader, consider grouping the policies that relate directly to the PAP into one continuous section and placing that section at the beginning of this element.
- 2. Section 4.2/4.3.** Section 4.2 "Access Planning and Development" and Section 4.3 "Facility Management and Operation" have introductory bodies of text containing many statements that read as policy language. These statements should either be pulled out and identified as specific policy language, or the language changed to avoid confusion when applying the chapter as a policy document. Some, but not all, of these statements have been identified in the in-line edits.
- 3.**
- 4. Adaptation to Sea Level Rise.** Please consider incorporating sea level rise adaptation planning into the current and proposed coastal access points, trails, and other public access amenities. For example, this would include fleshing out language on developing new California Coastal Trail sections as is outlined in **Objective-PA-2.3**,

more details on trail setbacks as described in **Policy C-PA-2a**, information in the “Trail Design and Construction” section on page **PA-12**, and taking into account the effects of climate change on new development and access as outlined in **Goal C-PA-3**.

5. **Recreation.** Recreation overlaps with and can sometimes conflict with public access. As such, there should be an overview of the relationship between recreation and public access, including the relevant Coastal Act policies (Section 30220 - 30224).
6. **Environmental Justice.** This chapter seems to be missing key policies that provide for low-cost or free access and recreation. **Objective C-PA-4.1** and **Objective C-PA-4.2** should include no or low-cost parking, and **Policy C-PA-4d** should provide discounts for lower-income folks in general, not just County residents. In addition, consider adding a general environmental justice policy such as this policy from the HMB certified LCP:

5-3. Environmental Justice. Minimize barriers to public coastal access to the maximum extent feasible, including ensuring that public access and recreational opportunities account for the social, physical, and economic needs of all people.

7. **Public Access Parking.** The County should specify that public access parking should be free or low-cost, and discounts should be available not only to County residents. Parking should maximize affordability and access opportunities for all residents and visitors to the coast, consistent with the mandates of the Coastal Act.
8. **Public Access and Temporary Events.** The County should consider including a discussion of and policies on balancing temporary events with public access. These policies should be based on the Commission’s 1998 memo “Regulation of Temporary Events in the Coastal Zone.”

The list above is intended as a complement to the in-line edits and comments provided for the Public Access Element but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff. Again, we thank you for your efforts to date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Public Access Element: Table of Contents

Public Access Element.....	2
1 Introduction	2
1.1 Purpose.....	2
2 Background.....	3
2.1 Legal Basis for Public Access	3
Public Trust	3
California Constitution	3
Proposition 20.....	3
California Coastal Act	3
California Coastal Trail	4
3 Public Access Plan	4
3.1 Existing Public Access.....	5
North Coast.....	5
South Coast	6
3.2 Facilities Providing Public Access.....	6
4 Public Access Policies	7
4.1 Acquisition.....	7
Acquisition Goals, Objectives, and Policies.....	7
4.2 Access Planning and Development	12
Access Planning and Development Goals, Objectives, and Policies	15
4.3 Facility Management and Operation	18
Allowable Activities.....	18
Funding.....	19
Maintenance	19
Policing	19
Private Fee Access	19
Facility Management and Operation Goals, Objectives, and Policies.....	19

4.4 Recreational Boating20
5 Implementation Programs21
5.1 Public Access Programs21
5.2 Other Initiatives22

Public Access Element

I INTRODUCTION

One of the highest priorities in the California Coastal Act of 1976 is the mandate to maximize public access to the coast. Provisions in Chapter 3 of the Coastal Act (Sections 30210-30214) set forth requirements for the provision of public access along the Sonoma Coast:

Coastal development shall not interfere with the public’s right of access to the sea where acquired through use or legislative authorization;

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects;

Public access facilities shall be distributed throughout the Sonoma Coast to prevent overcrowding or overuse.

Throughout this element, “public access” shall mean access to the coast as defined by Chapter 3 of the Coastal Act.

I.1 PURPOSE

The purpose of the Public Access Element is to protect and defend the public’s constitutionally guaranteed rights of access to and along the Sonoma Coast as well as uphold the requirements of the Coastal Act. The Public Access Element establishes policies to protect existing access areas, and identifies future access areas through the Public Access Plan found in Appendix B.

Commented [A1]: And recreation? Recreation is mentioned later in the chapter and should be given an overview here, including the relevant coastal act policies on recreation: 30220-30224.

Commented [A2]: Please cite Coastal Act policies in full

Commented [A3]: Please also include here a discussion of the balance between Section 30240 of the Coastal Act and Public Access and Recreation. It should be made clear that only “resource dependent uses” are allowed in ESHA.

2 BACKGROUND

2.1 LEGAL BASIS FOR PUBLIC ACCESS

Public Trust

California joined the Union on September 9, 1850 and adopted English Common Law, establishing the public's right to access and use of California's waterways for navigation, fishing, boating, natural habitat protection and other water-oriented activities. Court decisions have broadened these rights to include recreation, preservation of scenic values, and protection of coastal ecosystems. Navigable waterways, tidelands, and submerged lands within 3 miles of the coast are held in public trust by California and administered by the State Lands Commission for the benefit of all people.

California Constitution

The public's right of access to the tidelands is guaranteed by the California Constitution. Article X, Section 4 of the California Constitution provides:

"No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof."

Proposition 20

The California Coastal Zone Conservation Act of 1972 (Proposition 20) was a temporary measure passed by the voters of the state as a ballot initiative. It set up temporary regional Coastal Commissions with permit authority and a directive to prepare a comprehensive coastal plan. The coastal commissions under Proposition 20 lacked the authority to implement the Coastal Plan but were required to submit the Plan to the legislature for "adoption and implementation." One of the key provisions of Proposition 20 was clarifying the public right to ocean access.

California Coastal Act

In 1976, the California legislature passed the Coastal Act to carry out the provisions of Proposition 20, creating the California Coastal Commission and establishing that development may not interfere with the public's right of access to the sea, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. Section 30214 of the Act provides guidance on identifying and developing public access areas and related recreational facilities.

The Coastal Act requires for all new development, specifically between the first public road and the ocean shoreline provide of lateral and/or vertical easements to allow for public access along and to the shoreline, coastal bluffs, and other coastal resources unless adequate access currently exists or if providing a new access point will adversely impact coastal resources. Additionally, development may not interfere with areas where the public has a prescriptive right to ocean access.

Commented [A4]: Please cite the relevant Coastal Act policy being referenced here

Commented [A5]: Again, cite the relevant Coastal Act policy being referenced here

California Coastal Trail

The California Coastal Act required local jurisdictions to identify an alignment a continuous interconnected public trail system along the California coastline within the sight, sound, and smell of the Pacific Ocean. Senate Bill 908 (Chesboro) charged the Coastal Conservancy in 2001 to prepare a plan, in cooperation with the Coastal Commission and State Parks Department, describing how the Coastal Trail can be completed. This Plan, known as “Completing the California Trail” was submitted in 2003 to the legislature and sets forth the goals and objectives of the Coastal Trail and includes a blueprint for how missing links can be connected.

In collaboration with the Coastal Conservancy, [in this report](#), the Coastal Commission identified the following criteria for development of the Coastal Trail:

- (1) Provide a continuous walking and hiking trail as close to the ocean as possible;
- (2) Provide maximum access for a variety of non-motorized uses by utilizing parallel trail segments where feasible;
- (3) Maximize connections to existing and proposed local trail systems;
- (4) Ensure that the trail has connections to trailheads, parking areas, transit stops, inland trail segments, etc. at reasonable intervals;
- (5) Maximize ocean views and scenic coastal vistas; and,
- (6) Provide an educational experience where feasible through interpretive programs, kiosks, and other facilities

The intent of the Local Coastal Plan is to provide a continuous braided trail system that contains parallel routes and point access to accommodate a wide range of users. Figures C-PA-1a-k show the existing, planned, and future segments of the California Coastal Trail.

“Existing” means the trail has been constructed.

“Planned” means the approximate location of the trail alignment has been identified as described in the Public Access Plan.

“Future” means the alignment between two end points has not been identified or that several alternative alignments need to be evaluated. For illustration purposes, future segments are shown along Highway 1, but the chosen alternative should be as close to the ocean as possible.

3 PUBLIC ACCESS PLAN

The Public Access Plan in **Appendix B** encompasses recommendations from the previous Local Coastal Plan; and State Parks and County Regional Parks General Plans, Master Plans, and Management Plans; and has been supplemented with input from Sonoma County Ag+Open Space District, local and national land trusts with holdings in the Coastal Zone, and comments from public workshops. This information provides the framework for recommending a range of public access areas along the Sonoma Coast, consistent with the mandates of the California Coastal Act.

The Public Access Plan is based on both local and regional needs. Because of the exceptional quality and significance of its natural resources on a local, state, and national level, the Coastal Zone contains

Commented [A6]: Cite Coastal Act policy: Coastal Act Section 30609.5

Commented [A7]: Please include a citation here of this plan so that readers are able to reference the source document,

Commented [A8]: Please consider including in this chapter a rough timeline of the planned trail segments, if the county has some idea of the timelines needed for establishing these trail segments.

Commented [A9]: As the Public Access Plan seems to be central to this chapter, please include more details on how this plan was formed, and how the acquisition and development priorities were selected. In addition, please include any and all overarching themes, goals, and directives that come out of the Public Access Plan in this chapter. It is such a large document and due to its importance, should be incorporated as much as possible in this chapter

Commented [A10]: In addition to trail improvements, planning for sea level rise and erosion impacts on relevant trails should be included. Access and recreational facilities should be to be sited, designed and maintained to avoid or mitigate erosion and the impacts of sea level rise.

a greater proportion of the resource-based recreational facilities and opportunities than found in other areas of Sonoma County. Therefore, the equitable distribution of recreational opportunities and facilities along and between the North and South Coasts is a goal for State Parks and County Regional Parks reflected in the Public Access Plan. The equitable distribution of recreational facilities is influenced less by resident population densities and more by providing the entire County population with a range of recreational experiences without overly impacting any one access area too much.

State Facilities. The proposed improvements and programs for State facilities identified in the Public Access Plan are driven by a series of California Department of Parks and Recreation programs and planning documents. Criteria for access improvements, along with the involvement of natural and cultural resources, are provided through Division 5 of the State of California Public Resources Code and the California Department of Parks and Recreation's Operations Manual. Recommendations for access improvements to meet accessibility guidelines are mandated through the Consent Decree from *Tucker v. The State of California Department of Parks and Recreation*. Proposals for specific State facilities are identified based on the need to provide safe and quality public access to facilities and protect park resources.

Proposals identified for Sonoma Coast State Park are an outgrowth of guidance provided in the Sonoma Coast State Park General Plan (2004). Proposals associated with the Carrington Property are contained in the Carrington Property Immediate Public Use Facilities Plan (2008, rev. 2010) and subsequent Mitigated Negative Declaration (2010).

County Facilities. Access areas to be developed by Sonoma County Regional Parks facilities identified in the Public Access Plan are based on the considerations and standards described below under Planning and Development Considerations.

3.1 EXISTING PUBLIC ACCESS

Sonoma County's coastline stretches over fifty-five miles, and its Coastal Zone reaches inland over six miles. More than one-quarter of the land area on the coast is in government ownership, but not all of that land is open to the public with appropriate facilities. The Sonoma County Regional Parks Department (Sonoma County Regional Parks) and the State Department of Parks and Recreation (State Parks) own the majority of the developed facilities and undeveloped land along the coastline. Several other public agencies and private organizations operate facilities open to the public, such as the 5,600 acre Jenner Headlands Preserve.

Summer is the busiest season for coastal parks, especially during weekends and holiday weekends. Most beaches do not charge entry fees and are not staffed, making it difficult to determine how many people visit the Sonoma Coast, but estimates from State and Regional Parks indicate that somewhere between 600,000 and one million people annually, with the Doran Beach, Bodega Head, Salmon Creek Beach, Wright's Beach, Portuguese Beach, Goat Rock Beach, and Jenner Beach experiencing the heaviest use.

North Coast

The availability of public access within the Coastal Zone from Gualala to Jenner is quite varied. Some large sections of the coastline and upland areas of the Coastal Zone are open to the public, including

Commented [A11]: Recreation and its relationship to access should be mentioned and summarized in the introduction of this chapter.

Gualala Point Regional Park, Salt Point State Park, Fort Ross Historic State Park, and North Jenner Beach. At other large sections of the coast public access is limited, including in the area of Stewarts Point, Timber Cove, High Cliffs, and The Sea Ranch community. North Coast public access points and facilities with public access are shown in Figures C-PA-1a-g.

Access to the Russian River estuary between Duncans Mills and the river mouth is limited to certain areas, with the mouth accessible from Jenner and the Goat Rock area. From the Bridgehaven Bridge to Duncans Mills, river access is limited to the Willow Creek Environmental Campground, State Parks visitor center in Jenner, and small informal turnout areas. A public access point, subject to fees, is available in Duncans Mills at the private Cassini Ranch Campground.

There are about 40 miles of trail and over 80 parkland public access points and easements on the North Coast. The use levels tend to drop off from Russian Gulch to the north. Jenner, the southernmost area in California where recreational abalone diving is legal, is a significant recreational draw.

The California Coastal Trail on the North Coast is planned to be a continuous trail alignment extending over 40 miles, connecting Mendocino County with the Russian River estuary. Approximately half of the California Coastal Trail alignment is in public ownership and developed, with numerous gaps in the trail alignment, including the gap between Gualala Point Regional Park and Salt Point State Park.

South Coast

There are a large number of public access points along the South Coast, especially in the Bodega Bay area. There are about 21 miles of trails and over 60 parkland public access points and easements on the South Coast. South Coast public access points and facilities with public access are shown in Figures C-PA-1h-k.

The majority of the coastal property from the Russian River estuary to Bodega Head is a part of Sonoma Coast State Park and provides numerous developed and informal access points. Acquisition of the Willow Creek watershed, Wright Hill Ranch, and the Carrington Ranch will eventually provide extensive public access to the upland areas north of Salmon Creek in the Coastal Zone. Public access to the Bodega Bay tidelands is available at the County-owned facilities of Spud Point Marina, Westside Park, Bird Walk Coastal Access Trail, and Doran Regional Park. Two public access trails in the Bodega Harbor Subdivision were dedicated to County Regional Parks providing access along the coast and Shorttail Gulch.

Further south, the Sonoma Land Trust and The Wildlands Conservancy own property adjacent to the Estero Americano. At this point public access is limited to tours and interpretive programs.

Commented [A12]: Please define what acquisition means here. Through formalized access points? Dedication of easements? Trail building?

3.2 FACILITIES PROVIDING PUBLIC ACCESS

<i>Type of Facility</i>	<i>Examples</i>	<i>Description/Purpose</i>
State Marine Managed Areas (Marine Reserves and Marine Conservation Areas)	Del Mar Landing, Bodega Bay, Gerstle Cove, Russian River estuary	Support scientific research, education, and recreation.

<i>Type of Facility</i>	<i>Examples</i>	<i>Description/Purpose</i>
Open Space Preserves	Jenner Headlands Preserve, Estero Americano Coast Preserve	Lands that support passive recreation
State and County Parks	Doran Beach, Sonoma Coast State Beach,	Provide parking, camping, bathrooms, showers, maintained beaches, and other amenities.
Regional Trails	Kortum Trail, Pomo Canyon, Bodega Head, Bodega Dunes	Trails that provide recreation and transportation connections between protected accessible lands, communities, and/or other points of interest. They provide access and opportunities to experience cultural and natural areas, and generally accommodate non-motorized access for pedestrians, bicycles, equestrians, or multi-use.
Waterway Trails	Russian River estuary, Gualala River estuary, Salmon Creek, Bodega Harbor, and Estero Americano.	Public access to navigable waterways is protected by the State and Public Trust Doctrine. Navigable waterways support recreational use
Coastal Access Trails	Stengel Beach Trail, South Salmon Creek Trail, Miwok Trail, Stillwater Cove Trail	Coastal Access Trails are trails that provide access to the shoreline from roads or other trails. They allow pedestrians, and sometimes equestrians and bicyclists to reach the shoreline. They may have staircases, steps, switchbacks, retaining walls, or other structures to provide safe access.

4 PUBLIC ACCESS POLICIES

4.1 ACQUISITION

Acquiring public access can be accomplished in several ways including, but not limited to, purchase or donation of property, dedication of an easement for public access, or establishing that continuous historic public use has established an access easement across private property.

Acquisition location and priority are established by the Public Access Plan found in Appendix B.

Acquisition | Goals, Objectives, and Policies

GOAL C-PA-1: Maximize public access to and along the Sonoma County coast. Minimize adverse impacts from public access to cultural resources, public safety, public health and the environment; and minimize adverse impacts from development on public access.

Objective C-PA-1.1: Acquire public access to and along the Sonoma County coast through dedication of land, easements, or rights-of-way; fee purchase, or donation.

Objective C-PA-1.2: Acquire public accessways in a distributed network throughout the Sonoma County coast so as not to overburden any one area.

Objective C-PA-1.3: Acquire private accessways through easements and develop them into public accessways.

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Objective C-PA-1.4: Prioritize acquiring specific public access facilities within the Sonoma County Coastal Zone.

Land Acquisition Priorities

Policy C-PA-1a: Implement the Public Access Plan [as outlined in Appendix B](#) as the set of primary policies for acquisition of public access on the Sonoma County coast. (EXISTING LCP REVISED)

Policy C-PA-1b: Implement the Acquisition Priorities for the Public Access Plan as follows:

Commented [A13]: These acquisition priorities are confusing when not in context of Appendix B. Please include a section explaining these priorities, how they relate to Appendix B, and how the different priorities were selected.

- (1) **Acquisition Priority I:** Begin or continue efforts to acquire through purchase, permit requirements, donation, or other negotiations as necessary to implement the Public Access Plan.
- (2) **Acquisition Priority II:** Require an offer of dedication or dedication of an easement as a condition of any Coastal Permit.

When all available Priority I properties have been acquired, take positive steps toward acquiring Priority II properties. If a time sensitive Priority II property is available, consider pursuing it before all Priority I properties have been acquired.

Commented [A14]: Please confirm if this is for any coastal permit or just for the properties outlined in the Public Access Plan. Consider adding a qualifier here such as "where an offer of dedication or a dedication of an easement is needed or appropriate"

- (3) **Acquisition Priority III:** Require an offer of dedication or dedication of an easement as a condition of any Coastal Permit. Offers of dedication for some Priority III properties may never be exercised because adequate access is provided by private owners, there is inadequate funding, or it is determined to not be in the public's interest to open access.

When all available Priority I and II properties have been acquired, take steps toward acquiring Priority III properties. If a time sensitive Priority III property is available, consider pursuing it before all Priority I and II properties have been acquired.
(EXISTING LCP REVISED)

Policy C-PA-1c: Encourage acquisition and development of additional access trails that integrate with the Coastal Trail System where feasible. In the event that an opportunity arises for acquisition of property that is not identified in the Public Access Plan, the agency proposing the acquisition shall conduct an analysis covering the following points:

- (1) The relationship of the unforeseen opportunity to the recreational opportunities identified in the Public Access Plan, including analysis of how the unforeseen acquisition would meet those needs compared to facilities identified in the Plan; and

- (2) An analysis of the opportunity costs of the acquisition, including whether the proposed acquisition is intended to replace or supplement a facility identified in the Public Access Plan. This analysis may consider how the unforeseen opportunity may impact the acquisition of facilities identified in the Plan. (NEW)

Development Review

Policy C-PA-1d: Require dedication of a public access easement, right of way, or fee title as a Condition of Approval for a Coastal Permit for new development requested on property along the alignment of the California Coastal Trail or containing a planned access facility described in the Public Access Plan, for new development located between the first public road and the shoreline (i.e., west of the first public road); and for any new development located east of the first public road. The dedication shall be reviewed and approved by the Sonoma County Regional Parks Department as sufficient to support development and long term maintenance of the planned public access facility. The dedication shall be granted to the County of Sonoma or a State agency. (EXISTING LCP REVISED)

Policy C-PA-1e: Protect areas where public prescriptive rights to the coast may exist by identifying all known routes historically used by the public in the project area when processing Coastal Permits or where public prescriptive rights to the coast appear to be threatened. Work with the California Coastal Commission to ensure that any access rights that the public may have acquired are preserved.

To approve either a permit or Coastal Permits for private development on lands that may have public prescriptive rights to the coast or where these rights appear to be threatened, the following actions must be taken:

- (1) A finding made that the project would not interfere with public prescriptive rights to the coast.
- (2) Formalization of the public prescriptive rights to the coast, which may involve development of new or expanded improvements.
- (3) Dedication of an access easement or fee title as a condition of project approval.

Provide appropriate assistance with State or private legal action to acquire access easements to access corridors for which prescriptive rights to the Sonoma County coast may exist. (EXISTING LCP REVISED)

Policy C-PA-1f: Use the California Coastal Commission's *Standards and Recommendations for Accessway Location and Development (2007)* or successor document in siting and locating new or expanded public accessways and other recreation facilities. (NEW)

Commented [A15]: As above, consider including qualifiers for "new development" such as is outlined in Section 30212 of the Coastal Act.

Commented [A16]: Please do not cite other documents within LCP as documents may evolve and change, especially since the standards set in this document: <https://sccrtc.org/wp-content/uploads/2012/10/appendix+g+-+coastal+conservancy+accessibility+standards.pdf> are recommendations and not policy language. However, incorporating these standards as is relevant as explicit policies within this document would be a great goal, with some modifications regarding mitigation and adaption to sea level rise. In addition, please provide a citation as to where this appendix came from, as it does not appear to be an official memo from the Coastal Commission.

Determining Access and Recreation Needs

Policy C-PA-1g: Use the Public Access Plan as the guide for determination of undeveloped (passive) park needs in the Coastal Zone, including County Regional Open Space Parks, Regional Trails, and State Parks in order to support coastal recreation. (NEW)

Commented [A17]: For this plan to be a guidance, it needs to stand on its own. Please provide more specifics from the Public Access Plan (PAP) here, and central points around the guidance coming from the PAP.

Policy C-PA-1h: Use the following standards for determination of developed (active) park needs: 5 acres of Community Parks, Neighborhood Parks, and Regional Recreation Areas per 1,000 residents in the Coastal Zone. Developed park acreage within private residential areas shall count towards meeting the acreage standard. (NEW)

Commented [A18]: This is a bit unclear, please provide more details on what and where these standards are for and from?

Maintaining and Managing Public Access

Policy C-PA-1i: Sonoma County shall either accept or assist in finding another public agency to accept Offers of Dedication which increase opportunities for public access to the coast consistent with the County's ability to assume liability and maintenance costs. (NEW)

Commented [A19]: That contain easements or other measures to allow access to the park acreage to the public? Park acreage that doesn't provide public access opportunities should not be counted the same as park acreage that is accessible to the public.

Commented [A20]: What other public agency is being considered? Sonoma Land Trust? Please state here.

Policy PA-1j: Encourage owners of fee and non-fee private accessways which provide access to the public to continue to provide access to the public. If a landowner closes an access point to the public, measures to maintain the maximum amount of public access shall be assessed and feasible measures to maintain equivalent access implemented, including but not limited to negotiating an easement. Closures of public access must be consistent with Policy C-PA-5e. (NEW)

Commented [A21]: This policy should include a trigger for when they should encourage owners to keep private accessways open. A note here: closing an accessway would constitute a change of intensity of use, which would require a CDP.

Policy C-PA-1k: All Offers to Dedicate easements for public access shall be subject to the procedures in the California Code of Regulations Title 14, Division 5.5, Section 13574 (Procedures for Open Space Easements and Public Access Documents). (NEW)

Commented [A22]: What is this policy in reference to? This seems more like a definition of a lateral accessway more than anything. Will this be mandatory/priority for new development?

Policy C-PA-1l: A lateral accessway shall extend from the mean high tide line landward to a defined line, such as the intersection of the sand with the toe of a revetment, vertical face of a seawall, toe of a bluff, or other feature. (NEW)

Commented [A23]: Braided seems unclear here in this context, is there another word that can be used?

Commented [A24]: Consider adding an objective or a policy to minimize potential impacts of trails. This is language that has been used in other land use plans:

"Multi-use trails, associated amenities, and passive recreational features shall be located to minimize impacts to sensitive habitats and other sensitive surrounding land uses, such as residences and agriculture."

GOAL C-PA-2: Create a continuous braided California Coastal Trail system of walking, hiking, and bicycling access routes and trailhead connections that maximizes coastal access, ocean views, and educational opportunities while minimizing adverse environmental impacts.

Commented [A25]: New California Coastal Trail Segments need to take into account erosion and Sea Level Rise. Consider adding a policy such as the one in the HMB 2021 certified LCP

Objective C-PA-2.3: Identify, prioritize, and develop California Coastal Trail sections as described in the Public Access Plan and outlined in figures C-PA-1(a-k).

Objective C-PA-2.4: Provide a safe, continuous walking and hiking trail within the sight, sound, and smell of the ocean to the maximum extent feasible.

Objective C-PA-2.5: Provide maximum access to the California Coastal Trail for a variety of non-motorized uses by using alternative trail segments where feasible.

5-36 Long-term California Coastal Trail Alignment.
Study, identify and implement future alignments of the California Coastal Trail that would be sufficiently protected from the highest projection of erosion and sea level rise scenarios and would preserve or establish native vegetation between the trail and the bluff edge.

Objective C-PA-2.6: Maximize connections to existing and proposed regional and local trail systems.

Objective C-PA-2.7: Ensure the California Coastal Trail has connections to trailheads, parking areas, interpretive kiosks, and inland trail segments at reasonable intervals.

Objective C-PA-2.8: Maximize ocean views and scenic coastal vistas from the California Coastal Trail where possible.

Objective C-PA-2.9: Provide an educational experience through interpretive facilities where feasible.

Trail Location and Alignment

Policy C-PA-2a: Provide a safe, continuous walking and hiking trail as close to ~~the~~ the sight, smell and sound of the ocean as possible, or using the following standards:

Where it is not feasible to locate the trail along the shoreline due to natural landforms or legally authorized development that prevents passage at all times, inland bypass trail segments located as close to the shoreline as possible should be used.

Shoreline trail segments that may not be passable at all times, or that are not passable by bicycles, should be augmented by inland alternative routes that are passable and safe for pedestrians and bicycles.

Where erosion and sea level rise are anticipated to reduce the life of the trail, develop a planned retreat strategy for the trail segment. (NEW)

Policy C-PA-2b: Where gaps in a continuous alignment are identified, employ interim trail alignments to ensure continuity of the California Coastal Trail. Interim segments should be noted as such, with provisions that as opportunities arise, the trail shall be realigned to its optimum location. Interim segments should meet as many of the California Coastal Trail objectives and standards as possible for a range of X number of years. (NEW)

Policy C-PA-2c: Avoid locating the California Coastal Trail along or on roads with motorized traffic where feasible. In locations where it is not possible to avoid siting the trail along or on a roadway, the trail should be located off of the pavement, and separated from traffic by a safe distance or by physical barriers that do not obstruct, or detract from, the scenic views and visual character of their surroundings. In locations where the trail must cross a roadway, safe under- or over-crossings or other alternative at-grade crossings should be considered in connection with appropriate directional and traffic warning signage. (NEW)

Policy C-PA-2d: The California Coastal Trail should use existing oceanfront trails and recreational support facilities to the maximum extent feasible. (NEW)

Commented [A26]: Consider adding a policy for new trails being set-back from bluff faces and stabilized with native vegetation. Consider including a policy (From the HMB LCP) such as:

5-33. Trail Setbacks. New lateral trails along the bluff edge shall be set back a sufficient distance from the bluff edge to avoid impacts from erosion and sea level rise, generally 50 feet, and native vegetation shall be established and maintained between the trail and the edge to stabilize the blufftop. Outlooks and other trail amenities shall be incorporated to discourage damage from informal trails.

Commented [A27]: What does interim mean here? Consider adding some sort of timeline to this to ensure that interim trail segments are actually temporary. In addition, this seems like it would create sections of potentially "bad" trail that would never be realigned to an optimum location. Is there another solution?

Trail Design and Construction

Policy C-PA-2e: Provide adequate parking and trailhead facilities for the California Coastal Trail. Consider public safety concerns, protection of environmentally sensitive habitat areas, and use patterns including the proximity of other nearby parking and trailhead facilities when determining locations. (NEW)

Commented [A28]: Please include the effects of climate change when considering new trail design and construction

Commented [A29]: Please define what adequate parking means in this instance.

Policy C-PA-2f: Provide low cost overnight camping and lodging facilities at periodic reasonable intervals along the California Coastal Trail corridor to support long term hiking and bicycling excursions. (NEW)

Policy C-PA-2g: The Coastal Trail should be designed and located to minimize impacts to environmentally sensitive habitat areas to the maximum extent feasible. Where necessary to prevent disturbance to sensitive species, sections of the trail may be closed on a seasonal basis. Alternative trail segments shall be provided where feasible. For situations where impact avoidance is not feasible, appropriate mitigation measures should be incorporated, including but not limited to, use of boardwalks, reducing trail width and protective fencing. (NEW)

Commented [A30]: Please reference Policy C-OSRC-5b(6) here.

Commented [A31]: "Appropriate mitigation" seems undefined here Reference Policy C-OSRC-5b(6) to list mitigation measures

Policy C-PA-2h: The Coastal Trail should be designed to maximize compatibility with agricultural lands and uses. (NEW)

Policy C-PA-2i: Require construction of California Coastal Trail segments as conditions of approval for coastal development along the alignment involving other new or major replacement infrastructure, such as realignment of Highway 1. (NEW)

Policy C-WR-1n: Remove abandoned, deteriorated piers and associated buildings in Bodega Bay, particularly those within the alignment of future trails. Consider preserving portions of these structures may remain if they provide coastal access and can be maintained in safe condition. (NEW – MOVED FROM WATER RESOURCES ELEMENT)

Commented [A32]: Please provide an explanation as to why this is relevant for trails. In addition, fix labeling convention.

4.2 ACCESS PLANNING AND DEVELOPMENT

Facility Improvements. Each facility will have an adopted long-range plan or Master Plan that identifies and describes the location of the various improvements. Necessary facilities at a particular site depend on the expected use and the availability of facilities nearby. Because the level of use is expected to increase over time, facilities may be developed in several phases with new or expanded facilities added as needed. Among the facilities needed for public access and outdoor recreation destinations are: safe trails, restrooms, parking areas, trash receptacles, and signs.

Commented [A33]: This section appears to have policy language incorporated into the body of this paragraph. To avoid confusion and incorrect interpretation, specific policy language should either be pulled out as defined policies or edited to read more as a description or background information. Below some, but not all sentences are highlighted as reading as policy language.

Commented [A34]: Policy?

Quality of Destination. The desirability and capacity of coastal destinations are important considerations in locating public access points. Areas with few attractions and limited space may not justify the cost of development and operation. However, as the population expands and overuse impacts the existing destinations, the importance of every potential public access point increases.

Impacts on Environment. The environmental carrying capacity, protection of wildlife habitat, protection of views, and the psychological and social capacity of recreational lands are important factors to consider in planning and developing recreational facilities. Quantifying and measuring recreational carrying capacity is difficult and each site is unique.

The Local Coastal Plan generally supports distributing recreational facilities where compatible with the sensitivity and suitability of an area. Distributing recreational facilities throughout the Sonoma County coast helps prevent overuse and damage to the coastal environment in any one location. Often it is most efficient to utilize existing park service centers and consolidate significant developed park infrastructure to support the facilities. The existing park service centers are well-situated to serve additional dispersed recreation.

In planning for recreational activities, substantial modifications of the natural environment for a specific activity should be first avoided, then minimized when avoidance is not possible, minimized and avoided if possible. The Coastal Act specifies that coastal dependent uses permitted on the coast have priority over non-coastal dependent recreational uses. While oceanfront sites enhance coastal facilities such as hotels, restaurants, and campgrounds, such locations may affect important coastal views from the highway and adjacent recreation areas.

Development of park facilities must also include consideration of water supply and wastewater disposal. As the Sonoma County coast is a water scarce area, all facility planning should include an early evaluation of water supply capability if water is required to support the development.

Peak Use. Peak use issues can be addressed through a variety of approaches. Visitors can be encouraged to use Sonoma County Transit, Mendocino County Transit, and carpool, reducing the need for new parking areas (see California Coastal Act Section 30252.1). Interpretive materials and programs can be provided to help connect visitors with lightly used access points they may not have known about such as Shorttail Gulch or Bodega Dunes Beach that provide alternatives to crowded locations such as Doran Beach or Salmon Creek Beach.

Completion of the California Coastal Trail will connect most access points, allowing visitors to park wherever parking is available and use the trail to reach their preferred access point. Heavy use at particular access points can be distributed by creating additional trails with coastal views on parkland east of State Highway 1. The Dr. Joseph Trail (Pomo Trail) is a good illustration of a popular trail with coastal views east of the highway. Measures to address use patterns at specific access points are in the Public Access Plan.

Parking. Outside of the developed area of Bodega Bay, parking along State Highway 1 is primarily used by visitors accessing the coast. Parking management influences the capacity of Highway 1 since visitors slow down while searching for parking spaces and the numerous parking lots and turnouts tend to slow traffic. Between Bodega Bay and Jenner, State Highway 1 is adjacent to the Sonoma Coast State Beaches. Roadside parking in this area is heavy and often supported by paved, striped parking lots. North of Jenner Russian Gulch and Vista Trail provide the only off road parking, although there are numerous small turnouts. Further north, Fort Ross State Historic Park, Stillwater Cove Regional Park, and Salt Point State Park provide some off-highway parking for developed park areas only. Gualala Point Regional Park and The Sea Ranch Coastal Access Trails all have off-highway parking.

Parking improvements needed on the Sonoma County coast include developing new and enlarging existing parking facilities to reduce hazardous parallel parking, improving signs and entrances to and exits from parking facilities, and increasing capacity by delineating parking spaces. Parking improvements are most needed in the Sonoma Coast State Park area between Bodega Bay and North Jenner Beach, where traffic levels and demand for parking spaces are greatest. The Public Access Plan recommends parking improvements for various access points.

Residential Conflicts. Access facilities must be designed and managed to minimize conflicts with residential development. The distance between coastal access trails and residences should be as large as possible to protect the quality of the user experience and the privacy of the occupants of the residence.

Commented [A35]: Policy?

Liability. Liability is a concern of both public agencies and private property owners regarding public access. State laws do provide some immunity from liability. California Government Code Sections 831.2 and 831.4 provide immunity to public agencies for public recreational use of public lands and recreational trails and roadways, releasing agencies from liability if a person is injured while using the facility. California Civil Code Section 846 grants immunity to private landowners who allow people to use their property for recreational purposes. However, if a fee is collected the private landowner loses this immunity.

Coastal Permit Findings. The California Coastal Act requires that every coastal development permit issued for new development located between the nearest public road and the sea (i.e., west of State Highway 1) or the shoreline of any body of water located within the Coastal Zone include a specific finding that such development is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act. This policy does not apply to types of development not considered new development, as outlined in Coastal Act Section 30212.

Commented [A36]: Policy?

New development that is in conformance with the Public Access Plan of the Local Coastal Plan is not required to provide access as the Public Access Plan is certified as being in conformance with access requirements of the Coastal Act.

If the new development is not in conformance with the Public Access Plan, public access from the nearest public roadway to the shoreline and along the coast (i.e., granting of an easement to allow vertical access to the mean high tide line or lateral access) shall be provided on the project site with the following exceptions:

- (1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources; or
- (2) Adequate access exists nearby; or
- (3) It would have a significant adverse impact on agriculture as determined by the California Coastal Commission (Coastal Act Section 30212).

Access Planning and Development | Goals, Objectives, and Policies

GOAL C-PA-3: Maximize public access to and along the Sonoma County coast. Minimize adverse impacts from public access on people and the environment; and minimize adverse impacts from development on public access. (NEW)

Objective C-PA-3.1: Maintain and enhance public access to and along the Sonoma County coast.

Objective C-PA-3.2: Provide adequate facilities at public accessways.

Objective C-PA-3.3: Develop and maintain public accessways so as to protect public health and safety, protect sensitive visual and natural resources, and prevent adverse impacts on adjacent properties.

Objective PA-3.4: Ensure that development does not adversely affect existing and potential public accessways.

Objective PA-3.5: Prioritize development of specific public accessways.

Objective PA-3.6: Provide enough camping to meet the latent demand, and to provide a range of camping experiences.

Public Access Development Priorities

Policy C-PA-3a: Implement the Public Access Plan as the set of primary policies for development of public access on the Sonoma County coast. (EXISTING LCP REVISED)

Policy C-PA-3b: All proposed public access in the Public Access Plan has been designated from the highest to lowest priority for development as Development Priority I, II, or III. The emphasis for development priority is different than that for acquisition priority. Developing accessways distant from existing developed access points are given higher priority. Public safety and the costs of development and operation are principal concerns.

Implement the Development Priorities for the Public Access Plan as follows:

- (1) **Development Priority I:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing Priority I public access facilities within their purview;
- (2) **Development Priority II:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing Priority II public access facilities only when all Priority I public access facilities within their purview have been developed or if funding specific to a site becomes available; or
- (3) **Development Priority III:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing

Commented [A37]: Consider adding a policy on public access and sea level rise. Example language from the Half Moon Bay 2021 Certified LCP:

5-4. Public Access and Sea Level Rise. Require new development adjacent to public access and recreation areas vulnerable to coastal bluff erosion or sea level rise to be sited and designed to anticipate eventual loss and necessary replacement of such public access and recreation areas.

Commented [A38]: There may be a good opportunity here to insert a policy that balances public access impacts with temporary events, or other "development" that changes the intensity of use of an area, such as road closures.

Commented [A39]: This should go into more detail and perhaps have some policies associated with it.

1. Per previous comments, are all new development projects required to provide coastal access?

2. Are there requirements to include measures offsetting potential loss of access during construction? This seems to be partially covered in **Policy C-PA-3c** but should be clarified.

Commented [A40]: Please include an explanation on how these development priorities were established. What is the relationship between development and acquisition? Consider grouping all policies that relate to the Public Access Plan together.

Commented [A41]: Integrate the Public Access Plan as much as possible here and include details. Given that the public access plan is a to-do list of access points and a trails, it may not be accurate to say it is the primary set of policies on development of public access on the coast. Perhaps primary policies on access points, trails, visitor serving centers, etc? It also seems strange to have a policy that sets the baseline for all public access halfway through the chapter. Consider a different placement for this section.

Commented [A42R41]: What do you mean by: Perhaps primary policies on access points, trails, visitor serving centers, etc? Please clarify.

Priority III public access facilities only when all Priority I and II public access facilities within their purview have been developed. (EXISTING LCP REVISED)

Development Review

Policy C-PA-3c: Consider alternative mitigation measures for the impact of new development on public access in cases where development of certain public access facilities or improvements are found to be infeasible due to potentially significant impacts on public safety, agriculture, Environmentally Sensitive Habitat Areas, or cultural resources. Alternative mitigation measures include but are not limited to development of off-site public access points of equivalent public access opportunities. If off-site public access points are developed as mitigation for the impact of new development on public access, these access points shall be as close as feasible to the location of the impact on public access. Feasible is defined here as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” (NEW)

Commented [A43]: Please rephrase this policy, as the language is unclear as written. For guidance, from the HMB 2021 Certified LCP:

5-10 Mitigation for Impacts to Public Coastal Access.
Where adverse impacts to existing public coastal access cannot be avoided by new development and no feasible alternative exists, ensure that impacts are mitigated such as through the dedication of a new access or trail easement in perpetuity or the provision of improvements to other public coastal access points in Half Moon Bay.

Commented [A44]: Please clarify, does this mean in lieu of? (off-site/similar character)

Policy C-PA-3d: Require a Coastal Permit for all new public or private access facilities. (EXISTING LCP REVISED)

Commented [A45]: Please provide the reasoning this policy and its placement.

Policy C-PA-3e: Conduct public hearings for review of the Coastal Permits for an existing coastal access trail if there is evidence of degradation of resources in the area of the facility or significant public interest in the facility. Any proposal to reduce or close an existing public coastal access point or trail as a result of such review shall be reviewed by the California Coastal Commission. (EXISTING LCP REVISED)

Policy C-PA-3f: Use the *California Coastal Commission's Standards and Recommendations for Accessway Location and Development (2007)* or successor document in designing and constructing new or expanded public access facilities and other recreation facilities where appropriate. (EXISTING LCP REVISED)

Commented [A46]: Please combine this policy with Policy C-PA-1f, as they deal with very similar areas.

Policy C-PA-3g: Conduct visual analysis prior to siting parking areas for accessways. (EXISTING LCP REVISED)

Policy C-PA-3h: ~~Protect and~~ encourage a range of accommodations in parks, including the provision of low cost accommodations where appropriate, including tent or small vehicle campgrounds, hike-in and primitive campgrounds, and hostel and sleeping cabin facilities. Use existing buildings and structures for these accommodations where feasible. (EXISTING LCP REVISED)

Policy C-PA-3i: Locate campgrounds, whenever possible, in areas that have already been disturbed by prior uses and consequently where cultural and biotic resources are typically limited. Campgrounds should be sited in a manner that protects visual resources and

consistent with County development standards. Provide separate walk-in, tent, and recreational vehicle camping areas. (EXISTING LCP REVISED)

Policy C-PA-3j: Scale the capacity of planned public access facilities to be consistent with available water supply and available septic or sewer capacity. (EXISTING LCP REVISED)

Public Access Facilities

Policy C-PA-3m: Provide safe and clear public access trails. ~~The trail surface could be dirt, gravel, paved, or a stairway.~~ Improvements should be designed to be safe, minimize impacts to sensitive resources, minimize maintenance costs, and provide disabled accessibility to the extent feasible without substantially impacting sensitive resources. (NEW)

Commented [A47]: Instead consider including a statement that the trails should be pervious and low impact.

Policy C-PA-3o: Provide trash and recycling receptacles and their servicing at all major public access facilities. (NEW)

Policy C-PA-3q: Provide clear directional signs at all public access facilities to indicate the location of trail heads and public parking. If the trail begins on State Highway 1, only one directional sign on the highway is necessary. Signs shall be compatible with surrounding views and visual resources, consistent with County Visual Resource Assessment Guidelines. If the trail begins off the highway, there should be a directional sign on State Highway 1 and other directional signs to the trail head. (NEW)

Policy C-PA-3r: At trailheads provide information about regulations, contacts in case of an emergency, natural resources, the potential for fires, and the need for user cooperation. (NEW)

Policy C-PA-3s: Provide bicycle racks or locked bicycle storage areas at State and County Regional Parks, beaches, and other developed parklands. (EXISTING LCP REVISED)

GOAL C-PA-4: Establish a parking system with adequate parking facilities for parkland visitors throughout the Sonoma County coast, with minimal impacts on views, public safety, and natural resources.

Commented [A48]: Please specify that parking should be no- or low- cost.

Objective C-PA-4.1: Ensure that adequate parking facilities, including no-or -low cost parking improvements, are provided for each new or expanded public access facility.

Commented [A49]: Please specify no- or low- cost

Objective C-PA-4.2: Identify, prioritize, and implement parking improvements, including no-or -low cost parking improvements at parklands.

The following policies, in addition to policies in the Circulation and Transit Element, shall be used to achieve these objectives:

Locating and Developing Parking Improvements

Policy C-PA-4a: Encourage new parking facilities in conjunction with development of new public access facilities. Parking may be developed in phases as use levels increase. At public

access facilities, provide the maximum parking capacity that does not reduce public safety or significantly impact the environment. (NEW)

Policy C-PA-4b: Locate parking areas to directly connect with trails if possible. In locating new, large parking lots, consider the landward (east) side of State Highway 1 to reduce impacts to ocean views if safe trail crossings of the highway can be provided. (NEW)

Policy C-PA-4c: When feasible locate parking in areas screened from public view. (EXISTING LCP REVISED)

Facilitate Access for All

Policy C-PA-4d: Maintain and provide free parking, subject to reasonable restrictions, at all public access points on the coast which do not contain special facilities in excess of restrooms, parking, gated access, trash enclosures, informational kiosks, and other minor amenities. If user fees are implemented for any coastal park areas, encourage discounts to County residents. (NEW GP2020 REVISED)

Temporary Events on Public Beaches

Policy C-PA-4e: Until completion of Program C-PA-3 continue to apply zoning permit standards for temporary private events on public beaches that do not involve structures or other coastal development. (NEW)

4.3 FACILITY MANAGEMENT AND OPERATION

Facilities that provide public access must be managed. An agency or organization must be willing to accept responsibility for maintaining and operating the facility before it is opened to the public. Appropriate public agencies include State Parks, County Regional Parks, and California Department of Fish and Wildlife. The County would give preference to public agencies for accepting and operating facilities. If it is not feasible for a public agency to accept a particular facility, an organization may do so after a public hearing has been conducted.

In some cases, the managing entity is different than the property owner. For example, State Parks has an agreement with County Regional Parks to operate several parcels adjacent to Stillwater Cove Regional Park on the north. This is because these parcels are close to the County Park facility. Other possibilities are public ownership of a facility which is leased back to a private party for operation, and ownership and operation of a public access facility by a private owner such as a business or non-profit group.

Allowable Activities

Allowable activities at coastal access facilities are governed by easement or deed conditions and the general plan or master plan for the specific facility. Typically, in passive use areas, allowed recreational uses include activities normally associated with beach use but do not include organized sports activities, campfires, or vehicular access.

Commented [A50]: What reasonable restrictions? Please provide more details on the planned restrictions.

Commented [A51]: This policy should not just be limited to county residents, but to lower-income folks in general. Generally, this chapter seems to lack important policies on environmental justice. Consider adding more policies around EJ from the HMB Certified LCP such as:

5-3. Environmental Justice. *Minimize barriers to public coastal access to the maximum extent feasible, including ensuring that public access and recreational opportunities account for the social, physical, and economic needs of all people.*

Commented [A52]: This should be based on CCC temporary event guidance adopted in 1993. Can be seen here, starting on page 4:

<https://documents.coastal.ca.gov/reports/1997/11/T9c-11-1997.pdf>

In addition, until a more comprehensive list of polices are written, consider adding a policy on temporary guidance such as this policy from the HMB Certified LCP:

Policy 5-67. Temporary Events. *Ensure that temporary events minimize impacts to public access, recreation, and coastal resources through the special events permitting process. Require a coastal development permit for temporary events that have the potential to result in significant adverse impacts to public access or coastal resources during the peak summer months.*

Commented [A53]: Consider expanding this not just for beaches but for all Public Access and Public Recreational facilities

Commented [A54]: This section appears to have policy language incorporated into the body of this paragraph. To avoid confusion and incorrect interpretation, specific policy language should either be pulled out as defined policies or edited to read more as a description or background information. Below some, but all sentences are highlighted as reading as policy language.

Commented [A55]: Policy?

Funding

The funding for the operation and maintenance of public park facilities can be difficult for public agencies and private businesses and nonprofits to support during challenging economic times. Because of the numerous access points to existing facilities, temporary closures are often ineffective at preventing access to facilities and can cause additional issues.

Maintenance

Properly maintaining access facilities is essential to protect natural resources and public safety and to prevent adverse impacts on adjacent properties. Coastal Permit conditions and renewals help ensure that maintenance is adequate.

Commented [A56]: Needed?

Policing

Policing of recreational facilities is provided by the operating agency or private organization. The two public agencies that police most of the public recreational facilities on the Sonoma County coast are State Parks and County Regional Parks. In addition, the California Highway Patrol, State Department of Fish & Game, and County Sheriff play an important role. Current staffing levels for public agencies and many private organizations is limited.

Commented [A57]: Needed?

Private Fee Access

A few landowners charge minimal day use access fees that permit the general public the opportunity to reach the shoreline. By controlling access by fee and location, the property owner can operate trails, parking, and boat launching in a manner that affords minimum interference with other land uses. Unfortunately, several of these access points have been closed. The Public Access Plan encourages owners of fee accessways to continue to provide access to the public. Private fee accessways require a Coastal Permit and can be subject to sanitary, parking, and other conditions similar to those applied to public accessways.

Commented [A58]: As written the Public Access Plan does not contain any polices encouraging owners of fee accessways to continue to provide access, please provide policy language or an explanation in this chapter as to how the Public Access Plan establishes this.

Facility Management and Operation | Goals, Objectives, and Policies

GOAL C-PA-5: Ensure that public access facilities are operated and maintained to protect natural resources and public safety and to prevent adverse impacts on adjacent properties.

Commented [A59]: This is phrased differently than the rest of the goals and should be re-phrased

Objective C-PA-5.1: Require that the public access facilities are properly operated and adequately maintained to maximize public access.

Public Access and Recreation Planning

Policy C-PA-5a: California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) environmental analyses on proposed State Parks or County Regional Parks projects shall include estimates of current and future visitor use and analyses of adequacy of the proposed facilities to meet county-wide current and future visitor demand.
(NEW)

Commented [A60]: Please provide an explanation as to what the estimates are based off of and what is establishing the demand.

Policy C-PA-5b: Planning for new, expanded, or improved State Park and County Regional Park facilities shall take into consideration the balance of distribution of facilities between the North Coast and South Coast. (NEW)

Commented [A61]: Please provide the reasoning behind including just north and south as opposed to an equal distribution across the county

Public Access and Recreation Operations and Maintenance

Policy C-PA-5c: When new recreation facilities are proposed, assess proposed staffing plans to ensure adequate staffing for maintenance and security. (NEW)

Commented [A62]: Is this specific to state parks facilities?

Policy C-PA-5d: Use Coastal Permit conditions and renewals to ensure that recreation and access facilities are properly maintained to protect natural resources and public safety and to minimize adverse impacts on adjacent properties. (NEW)

Public Access Facility Closures

Policy C-PA-5e: The following guidelines shall be applied to closures of public access facilities:

- (1) A beach closure or curfew cannot apply to the area of original jurisdiction of the California Coastal Commission (State tidelands, submerged lands, and public trust lands), including but not necessarily limited to the area seaward of the mean high tide line.
- (2) Public access to the water's edge and at least 20 feet inland of the wetted substrate (sand and rocks) of all beaches shall be ~~permitted~~ allowed at all times.
- (3) Closure to public use of any portion of the beach inland of the mean high tide line is not encouraged, and would require a coastal development permit, a condition of which must include maintenance of the public's right to gain access to State tidelands.
- (4) Measures that limit public use of the beach shall be limited to those necessary to address documented events that could create a risk or hazard to public safety of the environment, and shall be the minimum necessary to address that potential risk or hazard. The need for continuation of measures that provide public safety but that limit public access to the beach shall be reassessed on a periodic basis to assure maximum feasible public access to the beach is provided. (NEW)

4.4 RECREATIONAL BOATING

The California Coastal Act of 1976 supports coastal-dependent development stressing protection of recreational boating and necessary support facilities. While Bodega Harbor is known primarily for its commercial boating, recreational boating is also important at the harbor.

GOAL C-PA-6: Provide adequate recreational boating facilities at parks, harbors, and marinas on the Sonoma County coast.

Objective C-PA-6.1: Identify and develop the recreational boating facilities needed at parks, harbors, and marinas.

Objective C-PA-6.2: Develop a sustainable economic approach to support the boating facilities in Bodega Bay.

Policy C-PA-6a: Encourage public and private harbor and marina operators to accommodate existing and future demand for recreational and commercial boating facilities. (NEW)

Policy C-PA-6b: Encourage continuing the existing boat rental and launch facilities at the coast and coastal waterways and providing additional facilities that provide new recreational opportunities compatible with natural resources. (NEW)

Policy C-PA-6c: Provide the maximum public access feasible to new boat wharves and piers. (NEW)

Policy C-PA-6d: Encourage the establishment of waterway trails for non-motorized boating to promote environmentally sensitive water based education, recreation, and tourism. Provide information at launch sites for safe and responsible boating. (NEW)

5 IMPLEMENTATION PROGRAMS

5.1 PUBLIC ACCESS PROGRAMS

Program C-PA-1: Prepare a long-range plan or Master Plan for each State or County Park or Preserve consistent with priorities in the Public Access Element in conjunction with park development planning. (EXISTING LCP REVISED)

Program C-PA-2: Encourage the provision of transit, bicycle and pedestrian pathways, and other vehicle use reduction measures such as carpooling to reduce vehicle use to and between public and private access facilities on the coast to reduce the number of vehicles on State Highway 1 and the demand for parking spaces. (NEW)

Program C-PA-XX: Evaluate feasibility of providing bus shuttle service from inland areas to popular coastal destinations. (NEW)

Program C-PA-3: Consider developing policies for review of applications for temporary private events on a public beach that consider: public or private use; type of associated coastal-dependent activities; displacement of public use; number of people; season, weekday or weekend, and hours; location and area relative to size of beach and public accessways; pedestrian access; transportation and parking; amplified music and other noise; equipment;

Commented [A63]: Implementation programs should be tied into relevant preceding policy sections, similar to other chapters organizations.

Commented [A64]: Please correct this.

Commented [A65]: When these are written they should be based on the Commission's 1998 memo "Regulation of Temporary Events in the Coastal Zone"

Commented [A66]: This should be for all public access in the coastal zone, not just for public beaches

temporary structures and enclosures; food service; warming fires; signage; admission fee; wastewater and solid waste disposal; and required mitigation measures. (NEW)

Program C-PA-4: Evaluate the feasibility of a Bodega Bay water taxi to connect existing recreational and commercial facilities and reduce automobile dependency. (NEW)

5.2 OTHER INITIATIVES

Other Initiative C-PA-1: Encourage partnerships between public agencies and private organizations that maximize the efficiency of operating and maintaining public facilities and preventing public access facility closures. (NEW)

Other Initiative C-PA-2: Work with Regional Parks to evaluate the reuse of Mason's Marina to concentrate the County's marina services and to support other boating related uses. (NEW)

Other Initiative C-PA-3: Encourage the formation of a harbor district at Bodega Bay to improve recreational and commercial boating. The harbor district could facilitate the economic basis for providing improved boating facilities and public outreach. (NEW)

Figure C-PA-1a. Public Access – SubArea 1 – The Sea Ranch North
(11x17)

DRAFT

Figure C-PA-1b. Public Access – SubArea 2 – The Sea Ranch South
(11x17)

DRAFT

Figure C-PA-1c. Public Access – SubArea 3 – Stewarts Point/Horseshoe Cove
(11x17)

DRAFT

Figure C-PA-1d. Public Access – SubArea 4 – Salt Point
(11x17)

DRAFT

Figure C-PA-1e. Public Access – SubArea 5 – Timber Cove/Fort Ross
(11x17)

DRAFT

Figure C-PA-1f. Public Access – SubArea 6 – Highcliffs/Muniz-Jenner
(11x17)

DRAFT

Figure C-PA-Ig. Public Access – SubArea 7 – Duncans Mills
(11x17)

DRAFT

Figure C-PA-1h. Public Access – SubArea 8 – Pacific View/Willow Creek
(11x17)

DRAFT

Figure C-PA-I.i. Public Access – SubArea 9 – State Beach/Bodega Bay
(11x17)

DRAFT

Figure C-PA-1j. Public Access – SubArea 9 – Bodega Bay Vicinity
(11x17)

DRAFT

Figure C-PA-1k. Public Access – SubArea 10 – Valley Ford
(11x17)

DRAFT

CALIFORNIA COASTAL COMMISSION

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November 3, 2021

County of Sonoma
Planning Department
Attn: Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Water Resources Chapter

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 6: Water Resources.

1. **Coastal Act Policies.** Please insert relevant Coastal Act Policies into this chapter, including:
 - a. Section 30230 "Marine resources, maintenance";
 - b. Section 30231 "Biological productivity; wastewater"; and
 - c. Section 30236 "Water Supply and flood control."

2. **Actionable Policies.** Several policies in this chapter contain language such as "encourage," "actively encourage," and "consider." This type of language makes these policies less actionable as written, and thus may not provide for the needed protection and conservation of water resources. As such, we would suggest changing this language to make the policies more actionable, and therefore Coastal Act consistent. These policies include but are not limited to:
 - a. Policy C-WR-2e
 - b. Policy C-WR-3b
 - c. Policy C-WR-3c
 - d. Policy C-WR-3e
 - e. Policy C-WR-4d
 - f. Policy C-WR-4f
 - g. Policy C-WR-4g
 - h. Policy C-WR-4i
 - i. Program C-WR-11

3. **Needed Detail and Context.** There are a number of sections and policies that are missing necessary additional detail and context to allow the policies to be carried out as intended. For example, Policy C-WR-1d references “Some Developments” when talking about development that may have a greater potential for adverse impacts to water quality. Instead, this policy should provide guidelines that specifically lay out what might qualify as a high-impact development or project.
4. **Effects of Climate Change on Water.** The future effects of climate change on the availability of water and effects of increased flooding and drought should be included in the introduction sections of 3.3 “Groundwater Availability” and 3.7 “Water Conservation and Re-use.”
5. **Removed 2015 Policies.** Since the Commission staff reviewed the 2015 draft LUP update, important policies and objectives have been omitted. The County should consider re-adding these policies and objectives to the LUP update, as they provide significant coastal resource protections grounded in Coastal Act consistency. The full list of these policies is included as a supplemental document, but the key policies we identified to include are listed here, below:
 - a. **Policy C-WR-1j:** Define and identify priority watersheds as those watersheds discharging to Critical Coastal Areas, Areas of Biological Significance or other Marine Protected Areas, surface waters listed on the State Water Resources Control Board 303(d) list of impaired surface waters, and/or watersheds which have the most development pressure. (New)
 - b. **Policy C-WR-1k:** Work with the North Coast Regional Water Quality Control Board, California Coastal Commission, California Department of Fish and Game, Resource Conservation Districts, and other agencies and organizations to develop and implement a watershed plan for each priority watershed. A watershed plan shall address the activities that impair water quality in that watershed and provide measures to avoid, minimize, or mitigate sources of impairment. (New)
 - c. **Policy C-WR-1o:** Deposition and discharge of sediment, debris, waste, and other pollutants into the stormwater runoff, drainage systems, water bodies, and groundwater shall be minimized. (New)
 - d. **Policy C-WR-1p:** Public education, outreach, and technical assistance shall be used whenever possible to minimize pollution in stormwater runoff. (New)
 - e. **Policy C-WR-1x:** New development shall be designed and managed to minimize non-storm discharges (e.g., dry weather flow) and eliminate such flow where discharges may adversely impact the biological productivity or diversity of marine organisms. (New)
 - f. **Policy C-WR-1y:** Encourage the use of permeable pavements such as bricks,

gravel, porous asphalt, or porous concrete by providing educational materials about these alternative pavements to development contractors and homeowners. (New)

- g. **Policy C-WR-1ee:** Applicants for new development that would disturb one or more acres of land shall be notified that the State Water Resources Control Board (SWRCB) requires a National Pollutant Discharge Elimination System General Construction Stormwater Permit, filing a Notice of Intent (NOI), and preparing a Stormwater Pollution Prevention Plan. Such development shall be conditioned to demonstrate proof that an NOI has been filed and the SWRCB has issued a Waste Discharge Identification Number. (New)
- h. **Policy C-WR-1ii:** Support communities in addressing the impacts of failing septic systems on surface water quality. (New)
- i. **Policy C-WR-1II:** Operators of commercial and industrial uses shall be required to reduce and pretreat wastes prior to their entering sewer systems. (GP2020 Revised)
- j. **Policy C-WR-1oo:** Develop and require specific Best Management Practices to avoid or minimize polluted stormwater runoff from parking lots, commercial developments, restaurants, and automotive facilities. (New)
- k. **Policy C-WR-1vv:** Identify and evaluate the water pollutants associated with agricultural operations which have the greatest impact on surface water quality, and implement measures to avoid, minimize, or mitigate the impact to water quality from agriculture. (New)
- l. **Policy C-WR-1ww:** Require that Confined Animal Feeding Operations (CAFOs) have nutrient management plans complying with United States Department of Agriculture, Natural Resources Conservation Service Standard 590. Develop and require specific Best Management Practices for CAFOs. (New)
- m. **Policy C-WR-1xx:** Continue to implement erosion and sediment control standards for vineyards and orchards in accordance with Vineyard Erosion and Sediment Control Ordinance (VESCO). (GP2020 Revised)
- n. **Policy C-WR-1zz:** Control discharge of non-point source pollutants from aquaculture facilities, including contents of storage tanks, unconsumed food, excrement, antibiotics, and wash water, into surface waters, particularly in or near Environmentally Sensitive Habitat Areas. Develop and require specific Best Management Practices for aquaculture facilities. (New)
- o. **Policy C-WR-1bbb:** Require that permits and approvals for new development include evaluation and consideration of naturally-occurring and human caused contaminants in groundwater. (New)

- p. **Policy C-WR-1ccc:** Where area studies or monitoring find that saltwater intrusion into groundwater has occurred, support analysis of how the intrusion is related to groundwater extraction; and support development of a groundwater management plan or other appropriate measures to avoid further intrusion and, where feasible, reverse past intrusion. (GP2020)
- q. **Policy C-WR-2f:** Discretionary projects in Urban Service Areas, where the density of development thus extent of impervious surface area is greater than in Rural Communities, shall be required to maintain the site's pre-development recharge of groundwater to the maximum extent feasible. Develop voluntary guidelines for development in Rural Communities that would accomplish the same purpose. (GP2020 Revised)
- r. **Policy C-WR-2h:** In cooperation with the Sonoma County Water Agency, California Department of Water Resources (DWR), and other public agencies, establish and maintain a groundwater data base from available application data, well tests, monitoring results, study reports, and other sources; analyze the data collected in an annual report to the Board of Supervisors; provide the data to DWR; and use the data along with other available information to refine the mapping of groundwater availability classifications. Protect the proprietary nature of well drilling data and release it only in summary form. (GP2020)
- s. **Policy C-WR-2j:** Cooperate with the unincorporated Coast communities, Sonoma County Water Agency, California Department of Water Resources, U.S. Geological Survey, well drillers, and all water users and purveyors in developing a comprehensive groundwater assessment for each major groundwater basin in the County; and the priorities, sequence, and timing for such studies. Such assessments shall be prepared to meet the applicable requirements of the California Water Code for a Agroundwater management plan and, where appropriate, include the following:
 - (1) Computer models of groundwater recharge, storage, flows, usage and sustainable yield;
 - (2) Assessment of nitrates, boron, arsenic, saltwater and other water quality contaminants;
 - (3) Analysis of resource limitations and relationships to other users for wells serving public supply systems and other large users;
 - (4) Opportunities for changing the sources of water used for various activities to better match the available resources and protect groundwater;
 - (5) Possible funding sources for monitoring, research, modeling, and development of management options; and

(6) Provisions for applicant fees and other funding of County costs.

If a basin assessment indicates that future groundwater availability, water quality, and surface water flows may be threatened and there may be a need for additional management actions to address groundwater problems, a plan shall be prepared for managing groundwater supplies which may require limitations on water extraction and use and other special standards for allowed development, wells, extraction, or use. Consideration of new management actions shall include involvement by the interests and parties stated above in developing alternatives addressing specific problems and a review of legal and fiscal issues for each alternative. (GP20202 Revised)

- t. **Policy C-WR-2n:** Where area studies or monitoring find that land subsidence has occurred, support analysis of how the subsidence is related to groundwater extraction and develop a groundwater management plan or other appropriate actions, where practicable, to avoid further subsidence. (GP2020)
- u. **Policy C-WR-3n:** Encourage public water suppliers to avoid or minimize significant adverse impacts on the environment resulting from water supply, storage, and transmission facilities, including impacts on other water users. (GP2020)
- v. **Policy C-WR-4c:** Support programs to monitor and determine per capita or per unit water use in each community and area, and use these data in groundwater management plans, master facilities plans, and wastewater treatment plans. (GP2020)
- w. **Policy C-WR-4g:** Development projects shall be required to retain stormwater for on-site use that offsets the use of other water where feasible. (GP2020 Revised)

The list above is intended as a complement to the in-line edits and comments provided for the Water Resources Element, but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff. Again, we thank you for your efforts to-date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office

Water Resources Element: Table of Contents

Water Resources Element	2
1 Introduction	2
1.1 Purpose.....	2
2 Regulatory Framework.....	2
2.1 National Pollutant Discharge Elimination System.....	3
2.2 Total Maximum Daily Load Program.....	3
3 Water Resources and Regulation	4
3.1 Water Cycle	4
3.2 Watersheds	4
Russian River Watershed.....	5
Frontal Pacific Ocean Watershed.....	5
Goals, Objectives, and Policies	5
3.3 Groundwater Resources	10
Groundwater Availability.....	10
Goals, Objectives, and Policies	11
3.4 Water Rights.....	12
Reasonable and Beneficial	12
Types of Water Rights.....	13
Sustainable Groundwater Management Act (SGMA).....	13
3.5 Biotic Resources and Water.....	13
3.6 Public Water Systems	13
Goals, Objectives, and Policies	14
3.7 Water Conservation and Re-Use.....	16
Goals, Objectives, and Policies	16
3.8 Water Importing and Exporting.....	18
Goals, Objectives, and Policies	18

Watershed Management 18

4 Implementation Programs 19

4.1 Water Resources Implementation Programs 19

4.2 Other Initiatives 22

Water Resources Element

I INTRODUCTION

I.1 PURPOSE

The primary purpose of this element is to ensure that coastal water resources are protected. Water resource management should consider the amount of quality water that can be used over the long-term without exceeding the replenishment rates over time or causing long-term declines or degradation in available surface water or groundwater resources. ~~Water Resources is an optional element to the Sonoma County Local Coastal Plan.~~ The Water Resources Element establishes goals, objectives, and policies to protect and sustainably manage coastal water resources. Programs needed to implement proposed policies are also identified. In addition, the ~~e~~Element calls out Other Initiatives—ongoing or potential future County initiatives that support ~~public safety~~ water quality efforts and promote inter-agency and community collaboration. Nothing in this ~~Element~~ element should be construed to encourage or condone illegal use of water.

2 REGULATORY FRAMEWORK

Development and land use in the Coastal Zone has the potential to create erosion, sedimentation, and degrade surface water quality in coastal waterways, estuaries, and coastal waters. Surface water quality concerns include low levels of dissolved oxygen; elevated water temperatures; pesticide runoff, and high levels of pollutants such as coliform bacteria, ammonia, toxic metals, and residual pharmaceuticals. These watershed conditions will impact coastal waters, especially in sensitive areas such as bays, lagoons, and coastal estuaries.

Watersheds in the Coastal Zone are regulated by the North Coast Regional Water Quality Control Board (Regional Water Board). Waste discharge requirements are set by the Regional Water Board

Commented [A1]: Please include CA policies on water quality, including Section 30230 and Section 30231

for point sources of pollution, including industrial and commercial uses, community wastewater and storm water management systems, and individual septic systems.

California's Non-point Source Pollution Control Program (CA NPS Program) addresses federal requirements under both the Clean Water Act and the Coastal Zone Management Act (Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990), by implementing California's Coastal Nonpoint Pollution Control Program on a statewide basis. The lead State agencies responsible for implementing the CA NPS Program are the State Water Resources Control Board (designated as the lead water quality agency) and the California Coastal Commission (designated as the lead coastal zone management agency), along with the nine Regional Water Boards. The California Coastal Act also mandates protection and restoration of water resources in the Coastal Zone.

The Local Coastal Program provides water quality protection measures in accordance with Coastal Act requirements for development in the Coastal Zone, which supplement the State Board's regulations. The Local Coastal Program is the standard of review for the Coastal Act Development Permits, issued by Sonoma County, including appeals to the Coastal Commission of Coastal Development Permits issued by Sonoma County.

2.1 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

The focus of regulatory efforts has expanded in recent years to address surface runoff and pollutants entering into drainage channels, streams, and groundwater. The National Pollutant Discharge Elimination System (NPDES) program requires individual permits for construction sites that disturb more than one acre of land, and for certain industrial and commercial activities such as fish processing and boat repair yards.

2.2 TOTAL MAXIMUM DAILY LOAD PROGRAM

The other major Clean Water Act program affecting the County in the future is the Total Maximum Daily Load (TMDL) program. The Regional Water Board is required to determine which surface water bodies are impaired, assess pollutant sources, determine acceptable levels, allocate allowable pollutant loads to various sources, and establish implementation programs. Impaired water bodies are those where beneficial uses of water are limited due to certain pollutants. Water bodies in the Sonoma County Coastal Zone that have been identified as impaired are the Russian River, Gualala River and Estero Americano. Pollutants of concern typically in Sonoma County are sediment/siltation, nutrients, pathogens, and temperature but also include low dissolved oxygen, mercury, other metals, herbicides and exotic species. The listing of impaired water bodies is periodically re-evaluated by the Regional Water Board, and TMDLs are being developed by the Regional Water Board for surface waters in the Coastal Zone.

Commented [A2]: Please add more context as to what the Total Maximum Daily Load program is, what the program requires, and what the program includes.

3 WATER RESOURCES AND REGULATION

3.1 WATER CYCLE

Sonoma County has a Mediterranean climate where most precipitation falls as rain during the winter; there is very little measurable precipitation during the summer. Most rainfall arrives with storms characterized as atmospheric rivers, relatively narrow atmosphere currents of air with high water vapor content. Precipitation across Sonoma County is highly variable—flatter areas near Petaluma receive an average of roughly 25 inches annually while mountainous areas in the northern Coastal Zone receive over 70 inches.

Rain may either be absorbed into soil or runoff directly into surface water (streams, rivers, lakes, etc.) that drain back to the sea. Rain that is absorbed into the soil may be retained in the soil, flow along shallow subsurface flow paths to surface waters, or infiltrate into groundwater. Groundwater moves slowly through subsurface layers to streams, lakes, and the ocean, or may be extracted through wells for irrigation or human uses. Soil water is absorbed by plants and evapotranspired.

3.2 WATERSHEDS

The term “watershed” refers to the area of land that includes a particular river or lake and all the rivers, streams, and creeks that flow into it. Most land in Sonoma County falls within the three main watersheds: Russian River, Gualala River, and San Pablo Bay. **Table C-WR-1** and **Figures C-WR-1a-c** show the areas and locations, respectively, of the watersheds and sub-watersheds of the Sonoma County Coastal Zone, which lay both inside and outside Sonoma County.

Table C-WR-1. Area of Watersheds and Sub-Watersheds of the Sonoma County Coastal Zone

<i>Watershed</i>	<i>Sub-Watershed</i>	<i>Total Area (square miles)</i>	<i>Area Within Coastal Zone (square miles)</i>
<i>Abbotts Lagoon-Frontal Pacific Ocean</i>	n/a	107	<1
<i>Gualala River</i>	n/a	299	2
<i>Gualala River</i>	South Fork Gualala River	44	2
<i>Lower Russian River</i>	n/a	148	15
<i>Lower Russian River</i>	Dutch Bill Creek-Russian River	55	<1
<i>Lower Russian River</i>	Willow Creek-Russian River	24	15
<i>Salmon Creek-Frontal Pacific Ocean</i>	n/a	256	52
<i>Salmon Creek-Frontal Pacific Ocean</i>	Bodega Harbor-Frontal Pacific Ocean	55	11
<i>Salmon Creek-Frontal Pacific Ocean</i>	Russian Gulch-Frontal Pacific Ocean	166	36
<i>Salmon Creek-Frontal Pacific Ocean</i>	Salmon Creek	35	4
<i>Tomaes Bay-Bodega Bay</i>	n/a	160	17
<i>Tomaes Bay-Bodega Bay</i>	Bodega Bay	16	1
<i>Tomaes Bay-Bodega Bay</i>	Bodega Harbor	9	7
<i>Tomaes Bay-Bodega Bay</i>	Estero Americano	38	9

Russian River Watershed

Most of central Sonoma County is part of the Russian River watershed and ultimately drains west to the Pacific Ocean. This area has moderate topography and lies in the ancient alluvial floodplain of the Russian River. Much of the suburban and urban development of Sonoma County is located inland within sub-watersheds, including Healdsburg, Windsor, Santa Rosa, Sebastopol, Rohnert Park, and Cotati. These inland sub-watersheds drain to, and have the potential to impact, coastal surface waters and groundwater.

Frontal Pacific Ocean Watershed

The Coastal Zone includes many small watersheds which are drained by stream segments that flow a short distance from the first coastal ridgeline directly to the Pacific Ocean. These individual small coastal drainage basins are collectively referred to as the Frontal Pacific Ocean watershed. Streams in these watersheds flow through areas of steep terrain and marine terraces. Coastal streams typically enter the ocean at small sandy beach inlets along steep rocky coastal bluffs.

Goals, Objectives, and Policies

GOAL C-WR-1: Protect, restore, and enhance the quality of surface and groundwater resources to meet the needs of all reasonable beneficial uses.

Objective C-WR-1.1: Protect and, where feasible, restore the quality of coastal waters to implement Coastal Act policy (in particular Sections 30230 and 30231). Coastal waters include (including ocean, rivers, streams, wetlands, estuaries, lakes, and groundwater).

Objective C-WR-1.2: Protect pristine waters and improve water quality of impaired surface waters, prioritizing watersheds which contain surface waters that are the most impaired, have the highest value for fish and wildlife, or are at most risk from future development.

Objective C-WR-1.3: Plan, site, and design development to minimize the transport of pollutants in runoff from the development, to avoid pollution of coastal waters.

Objective C-WR-1.4: Plan, site, and design development to minimize post-development changes in the site's runoff volume, flow rate, timing, and duration, to prevent adverse changes in the hydrology of coastal waters.

Objective C-WR-1.5: Reduce the degradation of surface water quality from the failure of septic and other wastewater treatment systems.

Objective C-WR-1.6: Educate the public about practices and programs to minimize water pollution, and provide educational and technical assistance to agriculture in order to reduce sedimentation and increase on-site retention and recharge of storm water.

Objective C-WR-1.7: Secure funding sources for development of Sonoma County Coastal Zone groundwater quality assessment, monitoring, remedial and corrective action, and awareness/education programs.

Commented [A3]: Please include a definition of pristine water, or the process that allows a body of water to be identified as pristine.

Commented [A4]: Impaired surface waters should be defined in the introductory text of this section. Are there specific impaired water bodies in Sonoma County that this is referencing?

Commented [A5]: Several objectives have been removed from the 2015 version previously reviewed by the commission. Please include these objectives or explain why they were removed. They are:
Objective C-WR-1.8: .
Require treated water to conform with beneficial water use standards to the maximum extent feasible.
Objective C-WR-1.9: .
Minimize the pollution of stormwater runoff and the degradation of surface water quality from roads and other paved surfaces, commercial development, waterfront development, and agricultural facilities.
Objective C-WR-1.11: .
Encourage new groundwater recharge opportunities and protect existing groundwater recharge areas.
Objective C-WR-1.12: .
Require consideration of naturally occurring and human caused contaminants in groundwater in development projects. Educate the public on evaluating groundwater quality.
Objective C-WR-1.14: .
Protect groundwater from saltwater intrusion.

Policy C-WR-1a: The approval for any project proposed within 200 feet of an impaired surface water shall include as conditions of approval design features and mitigation measures to prevent impacts to the quality of such waters. (New)

Commented [A6]: Please confirm that this is the correct buffer amount.

Policy C-WR-1b: New development and redevelopment shall include measures to minimize post-development changes in the runoff flow regime, control pollutant sources, and, where necessary, remove pollutants. Such measures shall take into account existing site characteristics that affect runoff (such as topography, drainage, vegetation, soil conditions, natural hydrologic features, and infiltration conditions). In addition, these measures should be considered early in site design planning and through alternative analysis. Such measures include, but may not be limited to the following:

~~(1)~~ Give precedence to a Low Impact Development (LID) approach to stormwater management in all development. LID integrates Site Design strategies with small-scale, distributed BMPs to replicate the site's natural hydrologic balance through infiltration, evapotranspiration, harvesting, detention, or retention of stormwater close to its source. Incorporate storm water management measures.

Commented [A7]: Edited to incorporate 2015 in-line edits.

~~(2)~~(1) Use pollutant Source Control Best Management Practices (BMPs), which can be operational actions (during construction) or structural features (post construction) in all development to minimize the transport of pollutants in runoff from the development.

~~(3)~~(2) Incorporate Treatment Control BMPs to remove pollutants of concern when the combination of site design and source control BMPs are not sufficient to protect water quality, or to meet State and Federal water quality objectives.

~~(4)~~(3) Plan, site, and design development to maintain or enhance on-site infiltration of runoff, where appropriate and feasible. Minimize the installation of impervious surfaces, especially directly-connected impervious areas, and, where feasible, increase the area of pervious surfaces in re-development, to reduce runoff.

~~(5)~~(4) Plan, site, and design development to protect and, where feasible, restore natural hydrologic features such as groundwater recharge areas, natural stream corridors, floodplains, and wetlands.

~~(6)~~(5) Plan, site, and design development to preserve or enhance non-invasivenative vegetation. When feasible, native species should be selected to achieve water quality benefits such as transpiration, interception of rainfall, pollutant uptake, shading of waterways to maintain water temperature, and erosion control.

~~(7)~~(6) In areas adjacent to an Environmentally Sensitive Habitat Area (ESHA), plan, site, and design development to protect the ESHA from any significant disruption of habitat values resulting from the discharge of storm water or dry weather flows. (NEW)
(MODEL LCP)

Policy C-WR-1c: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate. (NEW)

Policy C-WR-1d: Avoid construction of new storm water outfalls and direct storm water to existing facilities with appropriate treatment and filtration, where feasible. Where new outfalls cannot be avoided, plan, site, and design outfalls to minimize adverse impacts to coastal resources from outfall discharges, including consolidation of existing and new outfalls where appropriate. (NEW) (MODEL LCP)

Policy C-WR-1e: Some developments have a greater potential for adverse impacts to water quality and hydrology due to the extent of impervious surface area, type of land use, or proximity to coastal waters or tributaries. As determined by Permit Sonoma, on a case-by-case basis, such developments may require Treatment Control Best Management Practices (BMPs) for post-construction treatment of storm water runoff. Applicants for these types of developments shall do the following:

- (1) Conduct a polluted runoff and hydrologic site characterization by a qualified licensed professional, early in the development planning and design stage, and document the expected effectiveness of the proposed BMPs.
- (2) Conduct an alternatives analysis to demonstrate that there are no appropriate and feasible alternative project designs that would substantially improve on-site runoff retention, if a proposed development will not retain on-site the runoff volume from the appropriate design storm using a Low Impact Development (LID) approach.
- (3) Use treatment control BMPs or suites of BMPs designed to treat, infiltrate, or filter the amount of storm water runoff produced by all storm events up to and including the 1st inch of a 24 hour storm event, and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.
- (4) Use treatment control BMPs or suites of BMPs to remove pollutants from any portion of the design storm runoff volume that will not be retained on-site, or if additional pollutant removal is necessary to protect coastal waters.
- (5) Use a runoff control BMP or suites of BMPs including LID and minimization of impervious surfaces for the design storm, consistent with Regional Water Quality Control Board storm water permits or applicable State Water Resources Control Board requirements, to minimize adverse post-development changes in the runoff flow regime. (NEW) (MODEL LCP)

Policy C-WR-1f: Permits for new development shall be conditioned to require a mechanism for verification of require an inspection, monitoring, repair, and maintenance of Source Control and Treatment Control Best Management Practices (BMPs) as necessary so that they

Commented [A8]: The reference to “some developments” here is too vague to make this policy actionable. Please, at minimum reference or list specific development types that might have greater potential for adverse impacts.

Commented [A9]: Instead of a case-by-case basis there should be minimum parameters set defining the type of impact a development might have, such as, distance from water way, percentage of coverage for pervious surfaces. Sample Language from the Marin LCP states:

C-WR-14 Design Standards for High-Impact Projects. For developments that have a high potential for generating pollutants (High-Impact Projects), incorporate treatment control Best Management Practices (BMPs) or ensure that the requirements of the current NPDES Municipal Stormwater permit are met, whichever is stricter. The applicant shall submit a preliminary plan with a post-construction element prepared by an appropriately licensed California professional. The plan shall address erosion, sedimentation, and pollutants of concern. Developments to be considered as High-Impact Projects shall include the following:

1. Development of commercial facilities shall incorporate BMPs to minimize polluted runoff from structures, landscaping, parking areas, repair and maintenance areas, loading/unloading areas, vehicle/equipment wash areas, and other components of the project.

2. Development of automotive repair shops and retail motor vehicle fuel outlets shall incorporate BMPs to minimize oil, grease, solvents, car battery acid, coolant, petroleum products, and other pollutants from entering storm water runoff from any part of the property including fueling areas, repair and maintenance areas, loading/unloading areas, and vehicle/equipment wash areas.

3. Development of restaurants and other food service establishments shall incorporate BMPs to minimize runoff of oil, grease, solvents, phosphates, suspended solids, and other pollutants.

Commented [A10]: Please explain if this policy meant to just address the first inch of rain. Will there be BMP defined for when there is more than one inch of rain in 24hours? This is important to consider in the context heavier rain events due to climate change.

Commented [A11]: This should be qualified. What specific types of design storms?

Commented [A12]: Please define the individual or organization who might do this inspection.

function properly for the economic life of the development. The condition shall specify that this requirement runs with the land, such that the burden for implementing this requirement becomes the responsibility of the new owner upon transfer of the property.

(NEW) (MODEL LCP)

Policy C-WR-1g: Approvals for new development and redevelopment shall ensure water quality impacts from construction are minimized ~~by~~ through the following siting and design requirements:

- (1) Limiting the project footprint, phasing grading activities, implementing soil stabilization and pollution prevention measures, and preventing unnecessary soil compaction;
- (2) Limiting land disturbance from construction (e.g., clearing, grading, and cut-and-fill), especially in erosive areas (including steep slopes, unstable areas, and erosive soils);
- (3) Requiring soil stabilization Best Management Practices be implemented over disturbed areas as soon as feasible;
- (4) Requiring that grading plans include measures to avoid soil erosion and sedimentation of storm water to the maximum extent feasible;
- (5) Requiring as a condition of grading permit approval for all new development, regardless of the area of land to be disturbed, that soil stabilization and erosion control measures be installed in erosive areas of construction sites (e.g., steep slopes, unstable areas, and erosive soils);
- (6) Requiring treatment control BMP's adequate to avoid adverse impacts to habitat and water quality be identified and implemented for new development in or adjacent to Environmentally Sensitive Habitat Areas on sites that drain directly to surface waters, regardless of the area of land to be disturbed;
- (7) Requiring inspection of construction sites to verify implementation of approved erosion control plans and Storm Water Pollution Prevention Plans; and
- (8) Requiring BMPs be implemented for constructing, maintaining, and repairing roads and trails in County parks, including stabilizing erosion, clearing vegetation, resurfacing, and removing slide debris. (NEW) (MODEL LCP)

Policy C-WR-1h: All projects which involve construction of new storm drain inlets or maintenance of existing inlets shall be required to add a sign or stencil to each inlet with the equivalent of this language: "No dumping, drains into creek/ocean." (NEW)

Commented [A13]: The following siting and design requirements were removed from the 2015 version. Please include in a separate policy:

1. Preserve the existing hydrologic conditions and drainage system to the maximum extent feasible.
2. Preserve the existing stormwater runoff infiltration, filtration, and retention functions to the maximum extent feasible.
3. Maintain the volume and velocity of stormwater and dry weather runoff as close to existing levels as feasible.
4. Incorporate source control Best Management Practices (BMPs) appropriate to the site.
5. Incorporate treatment control BMPs to remove pollutants of concern when the combination of site design and source control BMPs are not sufficient to protect water quality, or to meet State and Federal water quality objectives.
6. Maximize the use of vegetated strips of land or other techniques of increasing stormwater infiltration and filtration before reaching storm drain inlets.
7. Maximize percent cover by pervious surfaces, and minimize percent cover by impervious surfaces, especially those that are directly connected

Commented [A14]: Please define this timeline. Is this during development? Post Development? During construction window?

Policy C-WR-1i: For new development and redevelopment projects that could affect water resources of Sonoma County’s Coastal Zone, as a condition of permit approval and prior to permit issuance, require the applicant to:

- (1) Provide proof that all applicable local, state, and federal approvals related to water resources protection have been obtained. Such permits may include, but are not necessarily limited to the following:
 - a. National Pollutant Discharge Elimination System Permits (State and Regional Water Quality Control Boards)
 - b. Lake and Streambed Alteration Agreement (California Department of Fish and Wildlife)
 - c. Clean Water Act Section 404 Permit (U.S. Army Corps of Engineers)
- (2) Submit final project designs that demonstrate incorporation of applicable regulatory requirements, resource agency conditions of permit approval, and associated best management practices related to water resources protection. (NEW)

Policy C-WR-1j: The abatement of failing septic systems that pose a risk to public health or the environment shall be actively pursued. (GP2020)

Commented [A15]: Is abatement the right word here? Removal perhaps?

Policy C-WR-1k: Initiate a review of any sewer system when it persistently fails to meet applicable standards. ~~If necessary to assure that such standards are met,~~ On the basis of the failure of applicable standards, the County may deny new development proposals or impose moratoria on building and other permits that would result in a substantial increase in demand, and may impose strict treatment and monitoring requirements. (GP2020)

Commented [A16]: Please tie this policy into water quality, not just public health and water quality.

Commented [A17]: This policy is not specific enough, in a protection of water quality context. It might be helpful here to cross reference with the public facilities chapter.

Commented [A18]: Which standards? Please state here.

Policy C-WR-1l: Ensure that agricultural operations reduce non-point source pollution through the development and implementation of California Water Resource Control Board-approved ranch plans and farm plans that demonstrate how the applicant intends to avoid, minimize, or mitigate the impact to water quality from agriculture. (GP2020)

Policy C-WR-1m: Design, construct, and maintain County buildings, roads, bridges, drainage, and other facilities to avoid or minimize sediment and other pollutants in storm water runoff. Implement Best Management Practices for their ongoing maintenance and operation. (GP2020)

Commented [A19]: Please define which facilities are being referenced here. Public works facilities?

3.3 GROUNDWATER RESOURCES

Groundwater Availability

The amount of groundwater in an area varies by the recharge from rainfall, the surface runoff in streams and drainage channels, and the local underground geology. The alluvial soils, sand, and gravel found in valleys generally can hold large amounts of water and thus constitute the largest aquifers in the County. Sandstone and some other sedimentary rocks can still absorb some water.

The climate of coastal Sonoma County provides abundant rainfall during the winter months, and potentially abundant groundwater recharge on an annual basis. Most of the County’s groundwater basins are centered along major creek and river valleys. However, many upland areas and the Coastal Zone are comprised of harder Franciscan rock formations that lack water storage capacity that underlie the area. The Franciscan Formation is a large area of mixed sedimentary, metamorphic, and igneous rocks. Groundwater is stored in the fractures, joints, cavities, and bedding planes of the rocks. The Franciscan Complex is generally considered to be non-water bearing; water availability largely depends on the nature of the fractures and their interconnection. Rainfall that would otherwise percolate into the aquifer simply runs off into creeks and streams and then to the ocean for lack of storage space in most of the rocks.

Chert, greenstone, and sandstone members of the Franciscan may possess water-bearing fractures that yield sufficient and occasionally abundant water in some locations. The location of water-bearing bedrock is difficult to predict, so water availability is uncertain.

Water Availability Classification

Using information on geology and water yields, the County uses a four-tier classification system to indicate general areas of groundwater availability.

Class 1	Major Groundwater Basins
Class 2	Major Natural Recharge Areas
Class 3	Marginal Groundwater Availability Areas
Class 4	Areas with Low or Highly Variable Water Yield

Sonoma County’s Coastal Zone is within the Class 4 Groundwater Availability Area, with some exceptions shown below.

Groundwater Quality

Poor groundwater quality can be the result of geologic conditions, such as the highly mineralized water extracted from the Sonoma Volcanics or brackish water from the Petaluma Formation. Some groundwater naturally contains dissolved substances that can cause health problems, depending on the concentrations and combinations of the substances present, such as arsenic, boron, selenium, mercury or radon (a gas formed by the natural breakdown of uranium in the soil).

According to the State Water Resources Control Board, groundwater is also often polluted by human activities that generate contaminants such as microorganisms, gasoline and diesel fuels, solvents, nitrates, pesticides, pharmaceuticals, and metals. The underground flow and concentration of these contaminants, as well as the intrusion of ocean saltwater into groundwater, can be influenced by the extraction of groundwater and changes in levels of groundwater and surface water.

Commented [A20]: Please include in this overview a section on Comment the effects and future effects of SLR on saltwater intrusion and how that might affect groundwater in the future.

Commented [A21]: This does not seem accurate in the context of climate change. Please also comment on the impacts climate change on weather including variable weather that might create more drought conditions and heavier rainfall and storms.

Commented [A22]: If pharma or other human caused contaminants is a concern there should be a policy about it. Consider returning:

“Policy C-WR-1bbb: Require that permits and approvals for new development include evaluation and consideration of naturally-occurring and human caused contaminants in groundwater. **(New)”**

The California Department of Water Resources (DWR) has identified the groundwater basins and subbasins in the Sonoma County Coastal Zone as follows:

Name and DWR Identifier	Size	Classification
Bodega Bay Area (DWR 1-57)	2,680 acres	Class 4
Wilson Grove Formation Highlands (DWR 1-59)	size unavailable	Class 2
Lower Russian River Valley (DWR 1-60)	10 square miles	Class 1
Fort Ross Terrace Deposits (DWR 1-61)	3.5 square miles	Class 3

Source: Department of Water Resources Bulletin 118

In addition to County mapping, the State regularly updates the maps of groundwater basins and prioritizes groundwater basins for sustainable management in the County.

Figures C-WR-2a-c shows the locations of the groundwater basins in the Coastal Zone. None of these groundwater basins are currently designated by DWR as medium- or high-priority groundwater basins.

Groundwater Depletion

Public concerns over depletion of groundwater supplies have increased as development that relies on groundwater supply has increased. The County fully participates in the California Statewide Groundwater Elevation Monitoring (CASGEM) and continues to collect data about existing groundwater levels, water quality, and water use to best inform planning decisions.

In response to reports that groundwater levels have declined in some areas, the County has initiated a long-term program to increase the available data on groundwater resources and to systematically organize and use it as development is planned and new well permits are sought. Programs are underway to assess the available groundwater in the County’s three major basins, Santa Rosa Plain, Sonoma Valley, and Petaluma Valley. In the fractured rock areas of the Coastal Zone, data from monitoring will improve our understanding of available groundwater resources. This growing body of data will produce better information for County decision makers to determine what further measures may be appropriate in order to properly manage groundwater resources.

Goals, Objectives, and Policies

GOAL C-WR-2: Manage groundwater as a valuable and limited shared resource.

Objective C-WR-2.1: Conserve, enhance, and manage groundwater resources on a sustainable basis that assures sufficient amounts of clean water required for future generations, the uses allowed by the Local Coastal Plan, and the natural environment.

Objective C-WR-2.2: Develop a scientifically based program to collect the data needed to assess and understand groundwater conditions.

Objective C-WR-2.3: Encourage new groundwater recharge opportunities and protect existing groundwater recharge areas.

Objective C-WR-2.4: Increase institutional capacity and expertise within the County to competently review hydrogeologic reports and data for critical indicators and criteria

Commented [A23]: Objective 2.5 “Avoid additional land subsidence caused by groundwater extraction.” Was removed. Please include this objective or provide an explanation as to why it was removed.

Policy C-WR-2a: Ensure sufficient groundwater quantity and quality for existing and proposed uses reliant upon groundwater wells through application of County standards for pump tests, well yields, pollutant levels, and water storage, particularly for higher capacity wells. (GP2020)

Policy C-WR-2b: Continue the County program to require groundwater monitoring for new or expanded commercial and industrial operations using wells. Where justified by the monitoring program, establish additional monitoring requirements for other new wells. (GP2020)

Policy C-WR-2c: Proof of groundwater with a sufficient yield and quality to support proposed uses in Class 3 and 4 Groundwater Availability Areas shall be required for discretionary permits. Test wells may be required in Class 3 Groundwater Availability Areas. Test wells or the establishment of community water systems to support new development in Class 4 Groundwater Availability Areas shall be required.

Policy C-WR-2d: Permit applications for new development that result in a net increase in groundwater use in a Class 3 and 4 Groundwater Availability Areas, or within a watershed that is designated as critical habitat for Steelhead or Coho Salmon shall be denied unless the applicant can demonstrate through a hydrogeologic report that the proposed use will not cause an adverse effect on groundwater resources of the groundwater basin, subbasin, or fractured rock aquifer, and associated stream levels. The hydrogeologic reports shall consider the following when evaluating impacts to groundwater resources: lowering of groundwater levels, reduction in groundwater storage, seawater intrusion, degradation of water quality, land subsidence, and depletion of interconnected surface water. The hydrogeologic report shall discuss if the development is consistent with an adopted groundwater sustainability plan or groundwater management plan, as applicable to the project site. ~~The expense of such study in relation to groundwater demand of the project shall be considered in defining the scope of the study~~ (GP2020 REVISED TO FOR CONSISTENCY WITH SGMA CRITERIA)

Policy C-WR-2e: Encourage public water suppliers to monitor and report groundwater levels, yields, and other information on groundwater conditions. (GP2020 REVISED)

3.4 WATER RIGHTS

Reasonable and Beneficial

The Reasonable and Beneficial Use Doctrine in the California Constitution requires that water be used in a reasonable and beneficial manner and prohibits misuse and waste of water. Water is used beneficially when, for example, it is used to drink, grow crops, ~~or wash cars~~. What is reasonable water use depends on the circumstances. For example, it could be unreasonable ~~to wash cars during a severe drought~~ for some water usages during a drought. All types of water rights are subject to this

Commented [A24]: Missing additional details on the need for a Hydrologic study and some of the details on what is needed in that study. Language from previous versions: "Test wells may be required in Class 3 Groundwater Availability Areas. Discretionary applications in Class 3 and 4 Groundwater Availability Areas shall be denied unless a hydrogeologic report establishes that groundwater quality and quantity are adequate and will not be adversely impacted by the cumulative amount of development and uses allowed in the area, so that the proposed use will not cause or exacerbate an overdraft condition in a groundwater basin or subbasin or fractured rock aquifer. Procedures for proving adequate groundwater shall consider streamflow, groundwater overdraft, land subsidence, saltwater intrusion, and the expense of such study in relation to the water needs of the project."

constitutional provision, and the State Water Resources Control Board is authorized to take action to prevent unreasonable uses of water.

Types of Water Rights

There are two principal types of surface water rights in California: riparian rights and appropriative rights. A riparian water right allows a landowner bordering a watercourse to share the water flowing past his property with other riparian landowners. An appropriative right is a use-based right dependent upon physical control and beneficial use of the water, rather than any special relationship between land and water. Since 1914, all new appropriations of surface water require a permit from the State.

Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act of 2014 (SGMA) provides for establishment of Groundwater Sustainability Agencies in designated groundwater basins and grants these agencies new authorities to manage groundwater use, recharge, and environmental impacts. The Act requires development of sustainable groundwater management plans for groundwater basins designated by Department of Water Resources as medium- or high-priority groundwater basins. There are no medium- or high-priority basins in the Coastal Zone, but as of 2020, Sonoma County is in the process of complying with SGMA.

3.5 BIOTIC RESOURCES AND WATER

Biotic resources include vegetation, trees and other natural vegetation that depend on water, but their presence also affects the long-term quality and quantity of water resources in several ways. The natural vegetation found around wetlands, streams, and lakes benefits water quality by filtering out sediment and pollutants from stormwater runoff before it enters surface water bodies. Vegetation can also block stream flows and increase the retention of stormwater, thereby recharging groundwater, absorbing pollutants, and modifying peak flood levels. Vegetation on stream banks reduces bank erosion as a source of sediment. Trees and shrubs provide shade which can lower the temperature of the water and increase its value as fishery habitat in a warm climate. Streamside trees that fall into stream channels may aid fishery habitat by providing shelter, diverting flood flows, and scouring deep holes.

The policies in the Water Resources Element recognize the importance of natural vegetation and wildlife habitat, both as beneficial water uses whose needs must be considered but also as factors in maintaining adequate water quality and quantity. The supporting biotic resource goals, objectives, and policies are contained in the Open Space and Resource Conservation Element.

3.6 PUBLIC WATER SYSTEMS

An adequate and sustainable water supply is essential if Sonoma County is to serve projected increases in population, housing, employment, business, and agriculture. The main purpose of this section is to address what the County can do to help maintain the long-term adequacy of water supply services provided by public and private entities, given the legal limitations on the County's authority over such services.

Commented [A25]: Please include Section 30231 Biological productivity; water quality, and Section 30236 Water Supply and Flood Control

The Sonoma Coast has about 16 water systems which fall under the regulatory authority of the SWRCB as a public water system.

The large public water systems on the coast are The Sea Ranch Water Company with 1,857 connections and the Bodega Bay Public Utilities District with 1,058 connections. The small public water systems range from the Sereno del Mar Mutual Water Company with 168 connections to the Blue Heron Restaurant with a single connection. The small public water systems supply water to a wide variety of uses such as businesses, residences, schools, and small unincorporated communities. Most are owned by mutual companies or other private entities, and a few are operated by special districts. These systems have small revenue bases and relatively high per capita costs and often have difficulty financing major capital investments needed to replace aging facilities or accommodate growth. Additional information about public water systems on the coast is provided in Public Facilities and Services Element Section 3.1 (Water Services) and **Table C-PF-1**.

All public water systems must meet and maintain water quality standards established by the Sonoma County Department of Health Services and the Regional Water Quality Control Boards. The suppliers are required to prepare and adopt wellhead protection plans that will avoid future contamination, and policies should avoid unnecessary restrictions on development associated with protecting public water wells.

In light of concerns over the future availability of water from surface and groundwater sources, water conservation, re-use, and alternative resources are increasingly important to providing adequate water supplies in the future.

Commented [A26]: Please add more context on availability concerns

Goals, Objectives, and Policies

GOAL C-WR-3: Encourage public water suppliers to provide an adequate water supply that meets long-term needs, is consistent with the adopted Local Coastal Plan and community water management plans, and maintains water resources for other water users while protecting the natural environment.

Objective C-WR-3.1: Assist public water suppliers in collecting and disseminating surface and groundwater data, assessing available water supplies, and protecting water quality.

Objective C-WR-3.2: Work with public water suppliers in developing and implementing long-term plans for water supply, storage, and delivery necessary to first meet existing water demands; and secondly to meet planned growth within the designated service areas, consistent with the sustainable yield of water resources.

Objective C-WR-3.3: Work with public water suppliers to balance reliance on groundwater and surface water to assure the sustainability of both resources.

Policy C-WR-3a: Assist public water suppliers in complying with Federal and State water quality standards by assuring that water sources used for public water systems are not contaminated by land uses or pollutants in the watershed, by supporting continued study and monitoring of water quality, and by encouraging acquisition of critical watershed areas by the water suppliers or the Sonoma County Agricultural Preservation and Open Space

Commented [A27]: Please reference the specific standards here, or provide a link to an appendix with these standards.

District. In furtherance of this initiative, work with public water suppliers in developing and implementing wellhead protection plans. (GP2020)

Policy C-WR-3b: Encourage local public agencies that are public water suppliers, including county-dependent districts, special districts, and other local public agencies, to consult with the County prior to acquiring a site or developing any well or facility for public water supplies in the unincorporated area; and require a determination of consistency with the Local Coastal Plan and supporting technical documentation for development of any such well or facility. (GP2020)

Commented [A28]: Please change this language to make this policy more actionable.

Policy C-WR-3c: Encourage the preparation of master facilities plans and urban water management plans for all public water suppliers to design and construct all facilities in accordance with sustainable yields. A master facilities plan should contain, but not be limited to the following:

Commented [A29]: Please change this language to make this policy more actionable.

- (1) Maps showing future service area boundaries;
- (2) Forecasted growth and relationship to Local Coastal Plan projections and limits;
- (3) Projected service and facility needs;
- (4) Estimated costs and revenues for needed improvements;
- (5) System design parameters and assumptions;
- (6) Monitoring and mitigation measures to assure long-term adequacy of sources, including during possible drought conditions; and
- (7) Water conservation measures.

Commented [A30]: A master facilities plan should have a priority plan for water usages, with priority and non-priority usages in cases where water is limited. This is referenced in the Public Facilities and Services Chapter as well.

In the event that a master plan or monitoring fails to show adequate public water facilities or supplies for planned growth, consider moratoria on plan amendments, zoning changes, building permits, or other entitlements in order to protect services to existing residents. (GP2020)

Policy C-WR-3d: Support the actions and facilities needed by public water suppliers to meet the demands estimated in adopted master facilities plans, consistent with the adopted Local Coastal Plan, community water management plans, and in a manner that protects the natural environment. (GP2020)

Policy C-WR-3e: Encourage public water suppliers to avoid or minimize significant adverse impacts on the environment resulting from water supply, storage, and transmission facilities, including impacts on other water users. (GP2020)

Policy C-WR-3f: Support cooperative inter-regional planning efforts by the public water suppliers, their contractors, and other existing water users, to consider future demand projections concurrently with the availability of sustainable water supplies. (GP2020 REVISED)

3.7 WATER CONSERVATION AND RE-USE

Water conservation has long been a practice in Sonoma County households, businesses, and agriculture. The rise of environmental consciousness in the 1970s and a prolonged drought in 1976 and 1977 led to the early efforts by some water suppliers to reduce demand. Planned re-use of treated water in the Santa Rosa Plain was initiated by the City of Santa Rosa during this same period as part of its regional wastewater system. Most of these earlier conservation efforts were not well publicized and, due to the relative abundance of fresh water sources (outside the Coastal Zone), were not thought to be significant as a water supply strategy.

In recent years, both water conservation and re-use programs have expanded considerably. As advanced treatment has become an increasingly standard practice, re-use programs are becoming even more viable. Meeting peak water demands in the future may require increased water conservation efforts and water recycling by water users in both urban and rural areas.

The Sonoma Coast has always been a water-scarce area. As described above in Section 3.32 (~~Groundwater~~) **Groundwater Resources**, most of the County's Coastal Zone is in a Class 4 Groundwater Availability Area. Therefore, there is an even greater need in the Coastal Zone to increase the efficiency of water use and reduce demand for water by applying new water conservation and re-use technology and implementing water conservation programs.

Goals, Objectives, and Policies

GOAL C-WR-4: Increase the role of water conservation and safe, beneficial water re-use in meeting water supply needs of both urban and rural users.

Objective C-WR-4.1: Increase the use of recycled water where it meets appropriate standards of quality and quantity for the intended use.

Objective C-WR-4.2: Promote and encourage the efficient use of water by all water users.

Objective C-WR-4.3: Conserve and recognize stormwater as a valuable resource.

Policy C-WR-4a: Require stormwater and wastewater disposal methods in accordance with all applicable Federal, State, and local regulations to avoid or minimize reliance on discharges into natural waterways. Where applicable, comment on projects and environmental documents to ensure that low impact development practices and reclamation, conservation, and reuse programs are protective of surface and groundwater resources. (GP2020)

Policy C-WR-4b: Water conserving plumbing and water conserving landscaping shall be required in all new development projects. Prior to building permit issuance, the applicant shall submit to Permit Sonoma for review and approval a Water Conservation Plan for all

Commented [A31]: Given future forecasts in changes to local precipitation patterns due to climate change and future and increased usage/development, water conservation strategy research should be continued.

Commented [A32]: Cite these regulations so that the user can reference.

Commented [A33]: Please provide more information as to which agency or group comments on these projects. Also please define what "comments" means in this context. Is it feedback or requirements?

buildings and landscaping. The Water Conservation Plan shall include all reasonably feasible measures to reduce water demand to the maximum extent feasible and enhance water resource recovery to maintain sustainable water supplies. Measures that must be evaluated include: installation of low-flow fixtures, best available conservation technologies for all water uses, rainwater and stormwater collection systems and graywater reuse. Landscaping plans must comply with the County Water Efficient Landscape Ordinance. Verification from a qualified irrigation specialist that landscaping plan complies with the County Ordinance shall be provided. The measures in the plan shall be implemented by the applicant and verified by Permit Sonoma staff prior to Certificate of Occupancy or operation of the use. (GP2020 REVISED)

Policy C-WR-4c: County operated water systems shall be required to minimize water loss and waste and promote programs to minimize water loss and waste by public water suppliers and their customers. (GP2020 REVISED)

Policy C-WR-4d: Encourage and support conservation for agricultural activities that increase the efficiency of water use for crop irrigation, frost protection, and livestock. (GP2020)

Policy C-WR-4e: Ensure that public wastewater disposal systems are designed to reclaim and reuse recycled water for agriculture, geothermal facilities, landscaping, parks, public facilities, wildlife enhancement, and other uses to the extent practicable, provided that the water meets the applicable water quality standards and is supplied in appropriate quantities for the intended uses. (GP2020)

Commented [A34]: Are there public waste water systems in Sonoma County? These were not described in the Public works and facilities section.

Policy C-WR-4f: Encourage graywater systems, roof catchment of rainwater, and other methods of re-using water; and minimizing the need to use potable surface water or groundwater. (GP2020)

Policy CWR-4g: Encourage property owners to incorporate only native, drought-tolerant, and low water use plants to conserve water and reduce the potential for runoff and erosion. (NEW)

Commented [A35]: Not actionable as written.

Policy C-WR-4h: Support programs to monitor and determine per capita or per unit water use in each community and area, and use these data in groundwater management plans, master facilities plans, and wastewater treatment plans. (GP2020)

Policy C-WR-4i: Encourage monitoring for all water use and water metering for public water suppliers that require water users to pay for costs of the amount of water used. Encourage tiering and other pricing mechanisms for public water suppliers that provide incentives for water users to employ conservation and reuse programs. Actively encourage public water suppliers to maximize water re-use and conservation prior to increasing net water use for new development. (GP2020)

Commented [A36]: Not actionable as written.

Policy C-WR-4j: Promote programs for retrofitting plumbing, providing cost rebates, identifying leaks, changing landscaping, irrigating efficiently, and other methods of reducing water consumption by existing users. (GP2020)

Commented [A37]: Are there any existing programs to date?

3.8 WATER IMPORTING AND EXPORTING

For many years, Sonoma County has relied to some degree upon importation of water from sources outside of the County borders. Since 1908, water has been diverted from the Eel River watershed in Mendocino County through a hydroelectric power plant into the Russian River watershed. This water has increased dry season flows in the Russian River and supplemented water supplies for downstream users.

Goals, Objectives, and Policies

GOAL C-WR-5: Ensure that new proposals for surface and groundwater imports and exports are consistent with Sonoma County's ability to sustain an adequate supply of high quality water for all its water users and dependent natural resources.

Objective C-WR-5.1: Protect the interests of current and future water users of Sonoma County in the review of proposals to export water from Sonoma County.

Objective C-WR-5.2: Ensure consideration of the environmental impacts of all proposed water imports and exports.

Policy C-WR-5a: Assess the environmental impacts and the impacts on current and future Sonoma County water users of any proposals to physically export water outside of Sonoma County, or to substantially increase existing out-of-County exports. Consideration of any proposal to export additional water shall prioritize benefit of and need for the water in Sonoma County, and assure that water needed by Sonoma County's urban, rural, and agricultural water users will not be exported outside the county. (GP2020)

Policy C-WR-5b: Full assessment of the environmental impacts shall be required for any proposals to import additional water into Sonoma County. (GP2020)

Policy C-WR-5c: Where allowed by State law, require that trucked water be tracked and reported to the County. (GP2020 REVISED)

Watershed Management

Watershed management is a holistic approach to managing water resources and other watershed functions such as fish and wildlife, riparian functions, and ecological services. Watershed management allows for an integrated approach to surface water, groundwater, and water supply management taking into account effects on stream flow, groundwater levels, water quality and habitat conditions.

GOAL C-WR-6: Improve the understanding, valuation, and sound management of the water resources in the diverse watersheds of the Sonoma County coast.

Objective C-WR-6.1: Seek and secure funding for addressing water resource issues on a watershed basis.

Objective C-WR-6.2: Ensure consideration of the environmental impacts of all proposed water imports and exports.

Policy C-WR-6a: Prioritize a watershed management approach to remediating identified water related problems. (GP2020)

Policy C-WR-6b: Utilize the North Coast Integrated Coastal Watershed Management Plans for the Salmon Creek and the Russian River Watersheds where appropriate and feasible. (NEW)

4 IMPLEMENTATION PROGRAMS

4.1 WATER RESOURCES IMPLEMENTATION PROGRAMS

Program C-WR-1: Develop and provide educational, outreach, or technical assistance programs focusing on water quality to owners and managers of agricultural operations and timberlands. Inform owners and managers of agricultural lands, including vineyards, orchards, row crops, grazing, ranches, and dairies, about the Agricultural Commissioner’s Best Management Practices for erosion and sediment control, including on-site retention of storm water, maintenance of natural sheetflow and drainage patterns, and avoidance of concentrated runoff, particularly on steep slopes; and for protection of streams and other surface waters from the effects of livestock grazing. (NEW)

Program C-WR-2: Develop and require compliance with standards for the siting and design of harbors, marinas, and other waterfront development, regardless of the size of the area to be disturbed. Require stormwater source control Best Management Practices to minimize polluted runoff including installation of trash receptacles with lids, posting of No Littering signs; and installation and maintenance of filters in storm drains. (NEW)

Program C-WR-3: Consider developing guidelines for development in Rural Communities that would provide for retention of the site’s pre-development rate of groundwater recharge. (GP2020 REVISED)

Program C-WR-4: Initiate and support educational programs to inform residents, business and agriculture owners and operators, and other groundwater users of best management practices in the areas of efficient water use, water conservation, and increasing groundwater recharge. (GP2020)

Commented [A38]: Previously this policy included a comment “on steep slopes, particularly greater than 35 degrees” Please include this additional detail or provide an explanation as to why it was removed.

Commented [A39]: Previously these filters were defined as hydrocarbon filters, please include this additional detail or provide an explanation as to why it was removed.

Commented [A40]: In addition to groundwater recharge in Rural Communities, previously this policy included: “Discretionary projects in Urban Service Areas, where the density of development thus extent of impervious surface area is greater than in Rural Communities, shall be required to maintain the site’s pre-development recharge of groundwater to the maximum extent feasible.” Please include this additional detail or provide an explanation as to why it was removed.

Program C-WR-5: In cooperation with the Sonoma County Water Agency, California Department of Water Resources, other public agencies, and well owners, establish and maintain a system of voluntary monitoring of wells throughout the County, using public water system wells and private wells where available. Encourage participation in voluntary monitoring programs and, if funds are available, consider funding of well monitoring where determined necessary in order to stimulate participation. (GP2020)

Program C-WR-6: In order to assess groundwater resources, review well permit data, monitoring data and identify special study areas where additional groundwater studies are needed. In each such special study area that is approved by the Board, develop a comprehensive groundwater assessment that includes the following:

- (1) Existing system of monitoring wells and stream gauges;
- (2) Locations of water wells;
- (3) Available data on groundwater and surface water levels and contamination;
- (4) Maps and graphs that show past and present data and changes in precipitation, imports, groundwater levels, groundwater quality, rates of extraction, and the relationship of groundwater to surface water;
- (5) Drillers' logs, geologic data and monitoring data needed to estimate water yields in the area;
- (6) A water budget for the area under existing and foreseeable conditions that estimates inputs, outputs, and the total amount of water gain or loss in the area;
- (7) Consideration of the following groundwater sustainability indicators: lowering of groundwater levels, reduction in groundwater storage, seawater intrusion, degradation of water quality, land subsidence, and depletion of interconnected surface water;
- (8) Recommendations for well monitoring, data collection and reporting; and
- (9) Provisions for applicant fees and other funding of County costs.

If an assessment, as defined above, demonstrates a need for additional management actions to address existing foreseeable groundwater problems, a groundwater management plan shall be prepared. The groundwater management plan shall define groundwater sustainably for the basin, include recommendations for sustainable yield and sustainable management criteria with minimum thresholds and measurable objectives, and include recommendation for groundwater management policy necessary to achieve groundwater sustainability, pursuant to the California Water Code or the County's land use or other legal authority. Include

involvement by the affected water users, well drillers, local agencies, private water companies and landowners. (GP2020)

Program C-WR-7: Work with the State Water Resources Control Board, California Department of Water Resources, California Department of Health Services, California Environmental Protection Agency, public water suppliers, and applicable County agencies to secure funding sources for developing groundwater assessment, protection, enhancement, and management programs. (GP2020)

Program C-WR-8: Develop a program to facilitate the tracking and maintenance of consistency between the adopted Local Coastal Plan, adopted groundwater sustainability plans, urban water management plans, and the master facilities plans of public water suppliers. Such a program should include meetings between Permit Sonoma and public water suppliers, Permit Sonoma review of proposed master facilities plans, and referral of Local Coastal Plan changes to all public water suppliers. (GP2020)

Program C-WR-9: Use water effectively and reduce water demand by developing programs to:

- (1) Increase water conserving design and equipment in new construction, including the use of design and technologies based on green building principles;
- (2) Educate water users on water conserving landscaping and other conservation measures;
- (3) Encourage retrofitting with water conserving devices;
- (4) Design wastewater collection systems to minimize inflow and infiltration; and
- (5) Reduce impervious surfaces to minimize runoff and increase groundwater recharge. (GP2020)

Program C-WR-10: Assess water use by County buildings and facilities and reduce water consumption to the maximum extent feasible. (GP2020)

Program C-WR-11: Consider amending County codes to increase the use of recycled water for new commercial, residential, and agricultural development. (GP2020 REVISED)

Commented [A41]: Does not seem actionable as written.

Program C-WR-12: Where a problem related to water is identified, promote and seek funding for evaluating and remediating the problem through a watershed management approach. (GP2020)

4.2 OTHER INITIATIVES

Other Initiative C-WR-1: Work with the California Coastal Commission, Regional Water Board, Sonoma County Water Agency, public water suppliers, and other interested parties to minimize polluted runoff from development, and to continue to develop and implement effective water quality plans and measures. (GP2020)

Other Initiative C-WR-2: Work with the Regional Board in development of TMDLs, TMDL Implementation Plans, water quality monitoring, and programs and projects for water quality restoration and remediation for impaired water bodies to improve water quality. (GP2020)

Other Initiative C-WR-3: Continue to cooperate with Mendocino County, the Regional Water Board, and CalFire to reduce water quality impacts of timber harvest in the Gualala River watershed. (NEW)

Other Initiative C-WR-4: Coordinate with the North Coast Regional Water Quality Control Board, California Coastal Commission, watershed focus groups, and stakeholders in collecting, evaluating, and using coastal watershed-specific water resource information. (GP2020)

Other Initiative C-WR-5: Work with the Regional Water Board and coastal communities to evaluate and monitor impacts on surface and groundwater quality caused by the operation of septic systems in existing and suspected problem areas. (NEW)

Other Initiative C-WR-6: Coordinate with the U.S. Army Corps of Engineers, NOAA Greater Farallones National Marine Sanctuary, the Regional Water Quality Control Board and the Coastal Commission to continue maintenance dredging in Bodega Bay and other areas on the Sonoma Coast in accordance with the California Coastal Act. Dispose of dredge spoils in a manner that protects habitat and water quality and in accordance with all local, state, and federal permit requirements. (NEW)

Other Initiative C-WR-7: Support the Sonoma County Water Agency with development of flood control design criteria that considers stream geomorphic analysis, and the use of biotechnical bank stabilization methods for the purpose of preventing erosion and siltation in drainage swales and streams. (GP2020)

Other Initiative C-WR-8: Work with public water suppliers in assessments of the sustainable yield of surface water, groundwater, recycled water, and conserved water, including during possible drought periods. This work should include the exploration of potentially feasible alternative water supplies. Surface and groundwater supplies must remain sustainable and not exceed sustainable yield. (GP2020)

Other Initiative C-WR-9: Request technical assistance and water resource data from public water suppliers and share available water resource information with them and the public. (GP2020)

Other Initiative C-WR-10: Help public water suppliers disseminate information on the limits of available water supplies, how the supplies can be used efficiently, the possible effects of drought conditions, acceptable levels of risk of shortage for various water users, priorities for allocation of the available water supply, conditions for use of limited supplies, and limits of alternate sources that could be used or developed. Towards this end, support water conservation and education programs which provide measurable targets for public water suppliers. (GP2020)

Other Initiative C-WR-11: Cooperate with public water suppliers in planning, developing, and constructing storage and transmission facilities needed to supply water pursuant to adopted Local Coastal Plan policies, urban water management plans, water supply agreements, master facilities plans and, where applicable, programs to mitigate identified groundwater overdraft conditions. (GP2020)

Other Initiative C-WR-12: Coordinate with the North Coast Regional Water Quality Control Board and California Department of Water Resources to promote stormwater impoundments for agricultural uses. (GP2020)

Other Initiative C-WR-13: Encourage and support research on and monitoring of local groundwater conditions, aquifer recharge, watersheds, and streams where needed to assess groundwater quantity and quality. (GP2020)

Other Initiative C-WR-14: Encourage and support comprehensive studies of long-term changes in climate and precipitation patterns in the County and region. (GP2020)

Other Initiative C-WR-16: Policy C-WR-4d: Encourage and support conservation for agricultural activities that increase the efficiency of water use for crop irrigation, frost protection, and livestock, including developing off-stream storage to reduce use of groundwater wells or direct diversions from streams during the dry season. (NEW - WAS POLICY C-WR-4D)

Commented [A42]: From our understanding, this was previously (in part) Policy C-WR- 4h

Policy C-WR-4d was: "Encourage monitoring for all water use and water metering for public water suppliers that require water users to pay for costs of the amount of water used. Encourage tiering and other pricing mechanisms for public water suppliers that provide incentives for water users to employ conservation and reuse programs. Actively encourage public water suppliers to maximize water re-use and conservation prior to increasing net water use for new development. (GP2020)"

Please explain why this policy was removed.

CALIFORNIA COASTAL COMMISSION

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September 27, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Public Safety Chapter

Dear Ms. Condon and Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. We anticipate this letter to be the first of several as we provide in-line edits and comments on each chapter. The comments and recommendations below summarize the overarching feedback on Chapter 7: Public Safety.

The list below is intended as a complement to the in-line edits and comments provided for the Public Safety Chapter but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff:

1. **Redevelopment.** The Public Safety chapter uses three related terms to describe redevelopment: *redevelopment*, *coastal redevelopment*, and *blufftop redevelopment*, only the latter of which is defined. To avoid confusion regarding this term, we would strongly recommend using only one term (either "redevelopment" or "coastal redevelopment"), which should measure redevelopment from the effective date of the Coastal Act (January 1, 1977). "Existing development" should also be defined as development that was in existence prior to passage of the Coastal Act. (See Policies and Objectives: C-PS-1g, C-PS-2i, C-PS-2m, C-PS-1, C-PS-4; Pages: PS-13, 14, 32).

Below is sample language for the definition of redevelopment, per the 2021 certified Half Moon Bay LCP:

Redevelopment" means alteration, demolition, or replacement of 50 percent or more of the major structural components of any structure or an addition of 50 percent or more to the floor area of such structure. Incremental changes that cumulatively amount to

replacement of 50 percent or more over time shall also be considered redevelopment. In all cases, policies that apply to “new development” shall also apply to “redevelopment.” (California Code of Regulations Section 13252(b) and California Coastal Commission 2015 Sea Level Rise Policy Guidance).

2. **Acceptable Risk.** “Acceptable risk” and “acceptable level” are mentioned frequently in the Public Safety chapter as a standard by which to allow development, however, the “Determination of Acceptable Risks” section does not require that “acceptable” classification should require the applicant to provide evidence that the development would not cause substantial adverse impacts on coastal resources, as is required by policy C-PS-1e. The County should explicitly define this term as stated or define what is *acceptable* under each of the varying scenarios rather than relying on this vague terminology. (See Policies and Objectives: C-PS-1e, C-PS-2.1, C-PS-2f, C-PS-2h, C-PS-3.1, C-PS-3g, C-PS-4.1, C-PS-4.2, C-PS-4.5, and C-PS-5.2).
3. **Redevelopment in Unique Circumstances.** We recommend the County consider adding a policy to complement Policy C-PS-2k that addresses the prospect of redevelopment in unique situations where properties cannot be adequately or safely setback or are already occupying lands in the public trust. Alternatively, the County could add a policy that allows development within the 100-year setback, provided that development is minimized and set back to the extent possible, with an absolute minimum setback defined, and combined with removal conditions. This approach assures development is safe for a limited number of years, less than the full 100-year life the policies would otherwise require, with assurances that should the development be imminently threatened the owner is required to accept liability and assure removal.
4. **Shoreline Protective Devices.** Specific policies on Shoreline Protective Devices need to be added to complement Objective C-PS-2.3 which describes minimizing the need to construct shoreline protective devices including defining when such devices are allowed and incorporating related policies on required monitoring, mitigation, and allowable duration for such devices. Sample language from the 2021 certified Half Moon Bay LCP is included below:

7-28. Shoreline Protective Device Limitations...*Shoreline protective devices shall be permitted only to serve a coastal-dependent use or to protect an existing structure in imminent danger from erosion (i.e., when substantial evidence indicates that the structure will be significantly damaged by coastal flooding or erosion hazards within two to three storm cycles, or approximately three years); when found to be the least environmentally damaging feasible alternative (e.g., if relocation or soft armoring approaches cannot mitigate the hazard); and when all coastal resource impacts are appropriately and proportionally mitigated.*

7-20. Redevelopment Standards. *Redevelopment in areas subject to shoreline hazards shall not be approved unless the entire structure meets the current standards for new development, including beach or blufftop setback requirements, based on an up-to-date, site-specific shoreline hazards evaluation. If the structure proposed for redevelopment is protected by a shoreline protective device, require the device to be removed and the site*

to be restored as a condition of redevelopment.

In addition, language from the Coastal Commission's draft Coastal Adaptation Planning Guidance for Residential Development is provided here as guidance for reframing Policy C-PS-2m which currently describes the authorizing the removal of a shoreline protective device after a structure has been removed.

F.6 Shoreline Armoring Duration. *Shoreline protective devices shall only be authorized until the time when the existing principal structure that is protected by such a device: 1) is no longer present; 2) no longer requires armoring; or 3) is redeveloped. Permittees shall be required to submit a coastal permit application to remove the authorized shoreline protective device within six months of a determination that the shoreline protective device is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring and the device is not needed to protect adjacent development that is still entitled to shoreline armoring. In the case of redevelopment, any potential rights to protection are terminated and removal of the shoreline protective device shall be required as part of demolition and alteration of the structure being redeveloped.*

5. **Hazards-Related Conditions of Approval.** Several policies including Policies C-PS-1e, C-PS-2g, C-PS-4i (which provide xxx, xxx, and xxx, respectively) are missing key elements regarding deed restrictions, risk disclosure, no future armoring requirements, and future adaptation/removal language. Please at a minimum add these as required conditions of approval for *all* coastal development permits that may be subject to shoreline hazards. The County should also include a general policy or policies requiring assumption of risk for hazardous development based on the language contained in the draft Coastal Adaptation Planning Guidance for Residential development:

As a condition of coastal permit approval for new development in an area subject to current or future hazards, applicants shall be required to acknowledge and agree, and private applicants must also record a deed restriction on the property to acknowledge and agree [modify following list as necessary to address specific case]: 1) that the development is located in a hazardous area, or an area that may become hazardous in the future; 2) to assume the risks of injury and damage from such hazards in connection with the permitted development; 3) to unconditionally waive any claim of damage or liability against Sonoma County, and Coastal Commission, if permit is appealed, its officers, agents, and employees for injury or damage from such hazards; 4) to indemnify and hold harmless Sonoma County, and Coastal Commission, if permit is appealed, its officers, agents, and employees with respect to approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; 5) that they have no rights under Coastal Act Section 30235 and related LCP policies to shoreline armoring in the future; 6) that sea level rise could render it difficult or impossible to provide services to the site (e.g., maintenance of roadways, utilities, sewage or water systems), thereby constraining allowed uses of the site or rendering it uninhabitable; 7) that the boundary between public land (tidelands) and private land may shift with rising seas, the structure may eventually be located on public trust lands, and the development approval does not permit

encroachment onto public trust land; 8) any future encroachment must be removed unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and any future encroachment would also be subject to the State Lands Commission's (or other trustee agency's) leasing approval; and 9) that the structure may be required to be removed or relocated and the site restored if it becomes unsafe or if removal is required pursuant to [insert LCP policy specifying adaptation planning requirements (i.e., Model Policy B.2 Removal Plan Conditions for New Development in Hazardous Areas)].

Sample language from the 2021 certified Half Moon Bay LCP provides a helpful example of effectively incorporating the draft residential guidance excerpted above into a policy:

***7-18. Assumption of Risk.** As a condition of approval for all coastal development permits that may be subject to shoreline hazards, require a deed restriction to ensure that property owners understand and assume the risks, and mitigate the coastal resource impacts, of new development and redevelopment in a hazardous area. Recorded assumptions of risk shall include a waiver of claim of damage or liability against the City of Half Moon Bay, waiver of rights to future shoreline armoring, acknowledgement that the development may need to be removed and the site restored in response to future hazard conditions, and any other acknowledgements and mitigation measures necessary to internalize risk decisions. In the event that development is threatened by shoreline erosion or other hazards and needs to be removed or relocated, the owner shall bear full responsibility for all costs and must work with the City to implement the mitigation in a timely manner.*

6. **Siting and Designing Development.** The siting and design policies for blufftop development and development in areas at risk of flooding and/or sea level rise impacts should be strengthened. Edits made to Policies C-PS-1e, C-PS-4d, and C-PS-4e (xxx-briefly summarize what these do in case numbering changes) should be incorporated to ensure Coastal Act consistency.

7. **Best Available Science.** "Best available science" is referenced multiple times in this chapter and should be defined. On a policy-specific basis, when possible, details should be given as to the source and quality of the science. Sample language for describing the best available science for coastal hazards and sea level rise is shown below:

The best available, up-to-date scientific information about coastal hazards and sea-level rise shall be used in vulnerability assessments, the evaluation of coastal development permit applications that present hazard risks, and the preparation of technical reports and related findings. Analyses shall include multiple sea-level rise scenarios, one of which is a worst-case "high" projection for the planning horizon or expected duration of the proposed development [insert the minimum anticipated duration of development, e.g., (minimum 100 years unless otherwise specified)], based on best available scientific estimates of expected sea-level rise at the time of the analysis. Sources of information may include, but shall not be limited to, state and federal agencies, research and academic institutions, and non-governmental organizations, such as the California Coastal Commission (CCC), Ocean Protection Council (OPC), National Oceanic and Atmospheric Administration (NOAA), the National Research

Council, and the Intergovernmental Panel on Climate Change.”

8. **Flood Risk.** Policies in Section 4.2 “Regulatory Setting” do not appear to address areas subject to SLR flood zones aside from those that are located in FEMA flood zones. Flood hazard zones as defined by the FEMA Flood Insurance Rate Maps do not include consideration of sea level rise, and so will not ensure the safety of development over its anticipated lifetime as sea levels rise. As such, additional consideration should be given to incorporating policies to address areas at risk of flooding from sea level rise.

Finally, we want to re-iterate some general comments from the “County of Sonoma Draft Local Coastal Program Land Use Plan Update” letter sent to Sonoma County from North Central District Manager, Stephanie Rexing, on July 23, 2021. These comments are not specific to only the Public Safety Chapter but are generally applicable to the entire document, as well as this chapter, and should be incorporated.

- **Organization and Clarity:** To improve organization and clarity each section should contain the implementation programs that pertain to their chapter. In addition, consider changing the format of the document so that chapter numbers align with their policy numbers
- **Coastal Act Policies:** Include all applicable and relevant Coastal Act policies and reference such policies in full.
- **Referencing External Documents:** The LUP should be drafted as a standalone document rather than including references to numerous external documents on which the policies rely (See Program C-PS-3 and Policies C-PS-2a thru 2d.).
- **Policy Language:** Consider changing policy language like “encourage” or “consider” in policies as the use of this type of terminology will make these policies not actionable.

Again, we thank you for your efforts to-date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Public Safety Element: Table of Contents

Public Safety Element.....	3
1 Introduction	3
1.1 Purpose.....	3
California Coastal Act	3
1.2 Relationship to Other Elements	4
1.3 Relationship to Other Plans and Regulations.....	4
United States Coast Guard Sector San Francisco Area Contingency Plan	4
Sonoma County Hazard Mitigation Plan	5
Sonoma County Climate Action Plan	5
California Environmental Quality Act.....	6
Other Laws and Regulations.....	6
1.4 Scope and Organization	6
1.5 Determination of Acceptable Risks.....	7
2 General Hazards Policy	8
3 Geologic Hazards Policy.....	10
3.1 Background	10
Seismic Hazards	10
Other Geologic Hazards.....	12
3.2 Regulatory Setting	14
Alquist-Priolo Earthquake Fault Zoning Act	14
Seismic Hazards Mapping Act	15
Other Seismic Safety Regulations.....	15
Shoreline Protection Structures	15
4 Flood and Inundation Hazards Policy.....	19
4.1 Background	19
Stream and River Flooding	20
Dam Failure Inundation Zones	21

Coastal Flooding and Storm Surge.....	21
Tsunamis	21
Floodplain Management	22
4.2 Regulatory Setting	23
5 Sea Level Rise Hazards Policy	25
5.1 Background	25
California Coast Sea Level Rise.....	25
Projected Sea Level Rise on the Sonoma County Coast.....	27
Exposure to Inundation and Erosion.....	31
Adaptation to Sea Level Rise	31
6 Wildland Fire Hazards Policy	35
6.1 Background	35
Hazards and Risk Assessment	36
Land Use Planning	36
The Sea Ranch Fuels Management.....	36
Fire Safety Standards.....	37
Public Education	37
6.2 Regulatory Environment	38
7 Hazardous Materials.....	39
7.1 Background	39
7.2 Regulatory Setting	40
Federal Hazardous Materials and Waste Programs.....	40
State of California Hazardous Materials and Waste Programs	41
California Coastal Act	41
Sonoma County Hazardous Materials and Waste Lead Agencies and CUPAs	41
8 Implementation Programs.....	43
8.1 Public Safety Implementation Programs	43
8.2 Other Initiatives	47
9 References	49

Public Safety Element

Commented [A1]: We recommend reorganization of policies within each section – first, include all required studies/application materials, followed by the relevant "implementation programs" (e.g. C-PS-1 re managed retreat and rolling setbacks should be in Geologic Hazards instead of in a separate section)

I INTRODUCTION

I.1 PURPOSE

California Coastal Act

The Sonoma County coast contains 3,755 dwelling units as of 2018 (Permit Sonoma GIS Community Profile) and, due to its outstanding natural beauty and recreational opportunities, hosts millions of visitors every year. However, many areas of the Coastal Zone are exposed to hazards related to earthquakes, geologic instability, flooding, sea level rise, tsunamis, coastal bluff erosion, wildland fire, and hazardous materials. The Public Safety Element establishes goals, objectives, and policies to protect the coastal residents and visitors from unreasonable risks from these hazards. The Element also identifies ongoing County initiatives, "Other Initiatives," that support public safety and promote inter-agency and community collaboration. Programs to implement proposed policies are also identified at the end of this element.

The 1976 California Coastal Act directs that new development minimize risks to life and property from environmental hazards and to avoid substantial alteration of natural land forms. Below is Section 30253, the applicable section of the Coastal Act.

Section 30253: Minimization of Adverse Impacts.

New development shall do all of the following:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluff and cliffs.*
- (3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*
- (4) Minimize energy consumption and vehicle miles traveled.*
- (5) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*

The Public Safety Element establishes goals, objectives, and policies to minimize potential human injury and property damage by guiding future development to reduce the exposure of persons and property to the above hazards. The policies in this Element are intended to avoid development which would result in unacceptable risks to the residents, visitors, private property, public facilities, and infrastructure in the Coastal Zone; and to minimize risks for existing development already located in

hazard areas. Acceptable levels of risk are based on the nature of each hazard, the frequency of exposure, the number of persons exposed, and the potential damage.

Commented [A2]: Please consider specific standards for “acceptable risk” as discussed in cover letter.

The policies in the Public Safety Element are intended to avoid development which would adversely affect existing and future residents, visitors, and property; and to not place an undue financial burden on property owners and taxpayers by allowing development in hazard areas which may have unusually high costs for public services and disaster relief. The Public Safety Element is based on the best available science and information and official data sources to delineate areas potentially at risk from various hazards. It includes maps of known high hazard areas to not only guide development but also to increase awareness of inhabitants and aid in disclosure of potential hazards in real estate transactions.

The Public Safety Element is only one part of a comprehensive countywide approach to address hazards that also includes emergency response plans, pre-disaster preparation and training, pre-disaster mitigation, design and construction standards, and education.

1.2 RELATIONSHIP TO OTHER ELEMENTS

The hazards addressed in the Public Safety Element and the sensitivity of various land uses have been considered in preparing the Land Use Element. Policies in the Land Use Element limits the range of land uses allowed in high hazard areas to reduce the number of people and structures exposed to risk. The Public Safety Element policies are also coordinated with the policies of the Open Space and Resource Conservation, Public Facilities and Services, Circulation and Transit, and Land Use Elements.

1.3 RELATIONSHIP TO OTHER PLANS AND REGULATIONS

The Local Coastal Plan, and Coastal Zoning Ordinance that implement it, are not the only means to minimize risks to public safety and property from hazards in the Coastal Zone. Local Coastal Plan policies are intended to be complementary to federal, state, and local laws, regulations, and plans that impose siting and design or other regulatory requirements to minimize risks from natural hazards to public safety and property and increase community resilience to these hazards. Implicit in the Public Safety Element is the assumption that the County will continue to comply with these laws, regulations, and plans.

United States Coast Guard Sector San Francisco Area Contingency Plan

The Federal Water Pollution Control Act (Clean Water Act) prohibits discharges of oil and hazardous substances into or upon the Nation’s waterways, shorelines, and adjoining areas. The Act mandates development of a National Contingency Plan, providing for coordinated federal response to releases of such materials. The Act also provides for the preparation of Area Contingency Plans (ACPs) for specific geographic regions.

The Sector San Francisco ACP covers the land masses and waters of Northern California, including Sonoma County and describes the authorities, roles, and responsibilities of parties involved in National Contingency Plan development and implementation. The ACP includes an inventory, along

with maps and descriptions where appropriate, of notable sensitive resources that could be damaged by a release of oil or other hazardous material. The inventory includes biological and cultural resources at dozens of sites along the Sonoma Coast. For each site, the ACP describes resources of concern, known natural hazards in the area, response strategies specific to the site, and an overview of response logistics.

The U.S. Coast Guard has authority and jurisdiction to coordinate spill responses within the Coastal Zone. In the event of a spill or release, a U.S. Coast Guard representative, or Federal On-Scene Coordinator, evaluates the severity of the event and coordinates the response with other federal, state, and local agency representatives, in accordance with the ACP and other applicable plans, laws, and regulations. Sonoma County Departments that could be involved in the response effort include the Fire and Emergency Services Department, Sherriff's Office, and Department of Health Services, among others.

Sonoma County Hazard Mitigation Plan

The Federal Disaster Mitigation Act of 2000 requires local governments to adopt and implement a local hazard mitigation plan in order to be eligible for various types of pre-disaster and post-disaster community aid and grant programs from the Federal Emergency Management Agency (FEMA). Unlike an emergency response plan, a hazard mitigation plan focuses on identifying mitigation actions that can be taken before disasters occur to reduce the level of property damage, personal injury, and community disruption that might otherwise result. It is based on the premise that many of the losses that could result from hazards could be avoided, prevented, or minimized through better planning, construction, design, and education.

In April 2017, the County adopted the most recent Sonoma County Hazard Mitigation Plan (Hazard Mitigation Plan) to help reduce the level of injury and property damage resulting from hazards including seismic hazards, landslides, floods, wildfires, and hazards resulting from climate change. The Hazard Mitigation Plan also addresses erosion, erosion is the loosening and transportation of rock and soil debris by wind, rain, or other running water or the gradual wearing away of the upper layers of the earth, sea-level rise, and tsunamis, as secondary hazards. The Hazard Mitigation Plan includes hazard maps and a five-year implementation plan. The implementation plan identifies community policies, actions, and tools to reduce the public's exposure to hazards, minimize potential property damage and disruption, and reduce the costs of disaster relief. The Hazard Mitigation Plan implementation plan as amended is incorporated by reference into this Public Safety Element to ensure consistency as it is updated and revised every five years.

Sonoma County Climate Action Plan

Sonoma County has long recognized the need for local action to help meet the global challenge of climate change. In July 2016 the Regional Climate Protection Authority adopted the *Climate Action Plan 2020 and Beyond (Climate Action Plan 2020)*. The Climate Action Plan 2020 recommendations will be implemented by local jurisdictions.

The Climate Action Plan 2020 is the outcome of a coordinated, multi-partner planning effort to reduce greenhouse gas emissions in Sonoma County. It builds on previous efforts, and provides a

framework for implementing measures to reduce greenhouse gas emissions adopted by the County and the nine cities.

The Climate Action Plan 2020 contain regional and project-level measures to support the County's effort to achieve the reaffirmed statewide reduction targets of 25 percent below 1990 levels by 2020, with long-term goals of 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. It includes a backcast of 1990 greenhouse emissions and a robust inventory of 2010 levels.

California Environmental Quality Act

Under the California Environmental Quality Act (CEQA), prior to any action on a project subject to CEQA, the lead agency which is the public agency that has the principal responsibility for carrying out or approving a project, must prepare an analysis of the impacts of the proposed project. The analysis must include an assessment of whether it would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; landslide; flooding in the 100-year floodplain; inundation by a seiche, tsunami, or mudflow; or hazardous materials. A seiche is a standing wave that oscillates in a lake as a result of seismic or atmospheric disturbances creating huge fluctuations of water levels. A seiche has to occur in an enclosed body of water such as a lake, bay or gulf. The hundreds year flood is the magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any given year.

The assessment must identify potential mitigation measures and project revisions or alternatives which may be considered to reduce the risks from such hazards to a level of less than significant. Most development projects in the Local Coastal Zone are subject to analysis under CEQA.

Other Laws and Regulations

A number of other state and federal laws and regulations complement the Local Coastal Plan's public safety intent by establishing siting constraints, study requirements, and building standards for specific types of development such as essential services buildings, dams, schools, hospitals, power plants, pipeline and transmission lines, and water supply and water treatment facilities. In addition, new construction in the Coastal Zone must comply with and meet the applicable standards of the California and Sonoma County Building Codes to increase resistance to or reduce risks from seismic events, geologic hazards, flooding, fires, and hazardous materials. The County will continue to apply and enforce all applicable design and siting requirements established by state and County Codes to increase the safety and disaster resistance of new or existing buildings whether private or public through the permit review process.

1.4 SCOPE AND ORGANIZATION

Goals, objectives, and policies applicable to risks from all general types of hazards are in Section 2, followed by sections on the specific hazard types – Geologic Hazards (Section 3), Flood and Inundation Hazards (Section 4), Sea Level Rise Hazards (Section 5), Wildland Fire Hazards (Section 6), and Hazardous Materials (Section 7). Each of these sections summarizes the extent of the hazard and the risk to public safety and property; and includes goals, objectives, and policies to reduce the

exposure of persons and property to the hazard. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as “Other Initiatives,” that support public safety and promote inter-agency and community collaboration.

1.5 DETERMINATION OF ACCEPTABLE RISKS

Acceptable levels of risk are based upon the nature of each hazard, the frequency of exposure, the number of persons exposed, and the potential damage. The County is not able to guarantee that any particular development will not, at some time in the future, be adversely affected by the hazards identified in this Element because such hazards, by their nature, defy precise prediction. Acceptable levels of risk may vary depending on the type of hazard, degree of certainty of hazard exposure, and state of existing development. Acceptable risk can only be determined after all effort has been made to reduce the risk and does not include development that increases known risks to human health and safety in identified hazard areas.

Maps included in the Public Safety element are for illustrative purposes only and are not a suitable basis for parcel-specific decisions. The map scale and reproduction methods limit precision in physical features displayed. The parcels boundaries and physical features are not intended to represent surveyed data. Site-specific studies are required to draw parcel-specific conclusions.

Although there are significant regulatory requirements and controls to regulate the location and design of new construction or development and minimize the hazard risks to acceptable levels, it may not be possible to reach the same level of hazard avoidance or risk reduction for existing development, which has already been located in hazard areas or constructed prior to the enactment of applicable building and zoning codes designed to minimize hazard risk and vulnerability. Additionally, many sites within the coastal zone are subject to potential risks for multiple hazards, as such policies for all of the applicable hazards must be addressed, with the most restrictive or specific regulation applied.

Even with adequate planning, regulation, and mitigation, natural hazards and disasters cannot be prevented from occurring and the risk of impacts from such events cannot be eliminated altogether. Natural hazards and disasters will continue to occur. Although the County will take actions to guide future development, considerable development has already occurred in areas subject to hazards. The County will work to increase public and private disaster preparedness and response and plan accordingly to reduce the potential for harm and damage from such events, however, the potential for significant harm and damage arising from natural hazards and disasters remains.

Existing development and future development potential of parcels may be lost as a result of natural hazards and disasters. There is no obligation on the part of the County to compensate property owners for their losses or to allow rebuilding and development on parcels which cannot meet current building and zoning standards.

Commented [A3]: Please consider specific standards for “acceptable risk” as discussed in cover letter.

2 GENERAL HAZARDS POLICY

Commented [A4]: Change chapters numbers to align with goal numbers

GOAL C-PS-1: Prevent unnecessary exposure of people and property to risks of injury or damage from earthquake, geologic, flood, inundation, and wildland fire hazards and hazardous materials.

Objective C-PS-1.1: Comply with all applicable land use, building, and development regulations codified by federal, state, and local government to minimize risks of personal injury and property damage from hazard events.

Objective C-PS-1.2: Make fully-informed decisions on land use, development, and real estate regarding hazards through the use and dissemination of the best available science, information, and analysis.

Objective C-PS-1.3: Implement pre-disaster mitigation actions identified in the most recent California Governor's Office of Emergency Services approved Hazard Mitigation Plan implementation plan to help reduce the level of risk and the level of personal injury and property damage that could result from hazards.

Objective C-PS-1.4: Minimize public costs for development in high hazard areas that are associated with high costs for public services and disaster relief.

The following policies, in addition to those in this Public Safety Element and the Open Space and Resource Conservation, Water Resources, and Land Use Elements shall be used to achieve these objectives:

Policy C-PS-1a: Continue to apply, update, and enforce all applicable design, siting, and construction requirements and standards established by federal, state, and the County government to increase the safety and natural disaster resistance, resilience, and accommodation of new or existing public or private buildings through the permit review process. Where a parcel is subject to multiple hazards the most restrictive or specific regulation will be applied. (NEW/GP2020)

Policy C-PS-1b: Make natural hazard maps, data, and information available for public use and review at the County permit office and County website. Provide maps, data, and information in order to guide land use, development, and real estate decisions that affect risks to public safety and property from natural hazards. Post notices at the offices of the Sonoma County Recorder, Sonoma County Assessor, and Permit Sonoma that identify the location of these maps, data, and information.

Update hazard data as necessary to reflect any changes made by various responsible agencies including, but not limited to, the FEMA, United States Geological Survey (USGS), California Geologic Survey and /or California State Geologist, National Oceanic and Atmospheric Administration (NOAA), [California Ocean Protection Council](#), [California Coastal Commission](#), and California Department of Forestry and Fire Protection (CAL FIRE). In the

Commented [A5]: We recommend establishing a required frequency for updating hazard data.

event of conflicting information among these sources, Permit Sonoma staff shall determine which is most appropriate. Provide locally generated hazard data to these agencies involved in hazard mapping. (NEW/GP2020)

Policy C-PS-1c: Use and consider available natural hazard data, maps, analyses, and impact and vulnerability assessments from appropriate agencies; and require preparation of additional site-specific or project-specific hazards analyses when necessary to ensure full consideration of risks from natural hazards in the design and development review processes. (NEW/GP2020)

Policy C-PS-1d: Where new hazard data or information, analyses, or maps become available as a result of agency research, database updates, or more detailed site specific analyses, the best available science and information shall be used and considered consistent with the Local Coastal Plan even if it departs from the hazard maps and policies adopted with the Local Coastal Plan. (NEW)

Policy C-PS-1e: Where there is a significant factual question about whether a particular development has sufficiently mitigated the potential risks from natural hazards to an acceptable level, the applicant shall provide evidence that the development would not cause damage or substantial adverse impacts on coastal resources. If the development is consistent with the Local Coastal Plan, and the property owner wishes to proceed in the face of a factual question regarding risks from natural hazards, the property owner provide indemnification to the County in the form of a deed restriction, insurance or other security, assume the risks of injury and damage from such hazards in connection with the permitted development, stipulate that they have no rights under Coastal Act Section 30235 and related LCP policies to shoreline armoring in the future, and provide a recorded notice which will protect the interests of the County and notify future purchasers of the property of the potential problem. (NEW/GP2020)

Policy C-PS-1f: Property owners shall be responsible for conducting their own research, and determining, and understanding the vulnerabilities and risks to their real estate investments from hazard events. Property owners shall be encouraged to develop an emergency response plan and mitigation plan to address those hazards before emergency conditions occur, and to carry their own hazards insurance. In developing such plans, property owners shall be encouraged to consider the FEMA's National Flood Insurance Program and Community Hazard Rating System, as well as the State of California Multi-Hazard Mitigation Plan. (NEW)

"Best available science" is the best available, up-to-date scientific information about coastal hazards and sea level rise shall be used in vulnerability assessments, the evaluation of coastal development permit applications that present hazard risks, and the preparation of technical reports and related findings. Analyses include multiple sea level rise scenarios, one of which is a worst-case "high" projection for the planning horizon or expected duration of the proposed development [insert the minimum anticipated duration of development, (minimum 100 years unless otherwise specified)], based on best available scientific estimates of expected sea level rise at the time of the analysis. Sources of information may include, but shall not be limited to, state and federal agencies, research and academic institutions, and non-governmental organizations, such as the California Coastal Commission (CCC), Ocean Protection Council (OPC), National Oceanic and Atmospheric Administration (NOAA), the National Research Council, and the Intergovernmental Panel on Climate Change."

Commented [A6]: "Best available science" needs to be described in this chapter:

"The best available, up-to-date scientific information about coastal hazards and sea level rise shall be used in vulnerability assessments, the evaluation of coastal development permit applications that present hazard risks, and the preparation of technical reports and related findings. Analyses shall include multiple sea level rise scenarios, one of which is a worst-case "high" projection for the planning horizon or expected duration of the proposed development [insert the minimum anticipated duration of development, e.g., (minimum 100 years unless otherwise specified)], based on best available scientific estimates of expected sea level rise at the time of the analysis. Sources of information may include, but shall not be limited to, state and federal agencies, research and academic institutions, and non-governmental organizations, such as the California Coastal Commission (CCC), Ocean Protection Council (OPC), National Oceanic and Atmospheric Administration (NOAA), the National Research Council, and the Intergovernmental Panel on Climate Change."

Commented [A7]: This shows a good policy specific definition of what "acceptable" would be. We recommend something like this that follows each mention of "acceptable levels" or "acceptable risk".

Commented [A8]: There seem to be several policies that address development and assumption of risk, but none are comprehensive. We strongly suggest including a separate Assumption of Risk policy that includes additional details per the Draft Residential Adaptation Guidance:

A.6 Assumption of Risk

As a condition of coastal permit approval for new development in an area subject to current or future hazards, applicants shall be required to acknowledge and agree, and private applicants must also record a deed restriction on the property to acknowledge and agree [modify following list as necessary to address specific case]: 1) that the development is located in a hazardous area, or an area that may become hazardous in the future; 2) to assume the risks of injury and damage from such hazards in connection with the permitted development; 3) to unconditionally waive any claim of damage or liability against the insert local government name, and Coastal Commission, if permit is appealed, its officers, agents, and employees for injury or damage from such hazards; 4) to indemnify and hold harmless the insert local government name, and Coastal Commission, if permit is appealed, its officers, agents, and employees with respect to approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in ...

Commented [A9]: We recommend tying this to something, as otherwise this is unlikely to be implemented. In our staff-to-staff meeting, we should discuss the intent of this policy and how the County envisions homeowners using this.

Policy C-PS-1g: Where existing development is located in a natural hazard area and is destroyed by a hazard event, there is no inherent public obligation to allow redevelopment or rebuilding which cannot meet current health and safety Codes and standards or to compensate the owner for the loss of their investment. (NEW)

Commented [A10]: As discussed in cover letter, this is not defined. There needs to be a consistent definition between blufftop redevelopment and redevelopment. Recommend using “redevelopment” or “coastal redevelopment.” This measures redevelopment from the effective of the Coastal Act.

Policy C-PS-1h: Land divisions, shall be prohibited unless all proposed parcels can be demonstrated to be safe from flooding, erosion, fire and geologic hazards; would not require the construction of shoreline protective devices; and can accommodate a safe, all-weather access. (NEW)

Policy C-PS-1i: Facilitate response and recovery from natural hazard events by improving the ability of public infrastructure and facilities to withstand and remain functional after hazard events. Where necessary, retrofit, replace, or relocate existing infrastructure and facilities to avoid unreasonable risks from hazards. (NEW)

Commented [A11]: Policy should establish how the County will determine when replacement, retrofit, or relocation of infrastructure is “necessary” in addition to how “unreasonable risk” is defined and will be determined.

3 GEOLOGIC HAZARDS POLICY

3.1 BACKGROUND

Geologic hazards result from large scale seismic events and localized occurrences of expansive soils, slope instability, landslides, mudslides, subsidence, and coastal bluff erosion.

Seismic Hazards

Earthquakes are usually caused by sudden movement along geologic faults. Sonoma County has four active or potentially active earthquake faults within its boundaries identified by the state Alquist-Priolo Earthquake Fault Maps. Known geologic faults, including the San Andreas Fault system, within the 10 SubAreas of the Coastal Zone are shown on **Figures C-PS-1a-c**.

While a seismic event along any fault in the county could result in noticeable impacts along the Sonoma County coast, a seismic event along the Northern Segment of the San Andreas Fault system would be expected to have the greatest potential impact in the Coastal Zone due to the potential for surface fault rupture and violent ground shaking. As shown on Figures C-PS-1a-c, this fault generally lies off the west coast of the County. The fault crosses land at Bodega Bay, passes offshore, then crosses land again at Fort Ross running northward, through the Sea Ranch community, and continuing north into Mendocino County. Analysis of seismic data indicates that 8.5 magnitude earthquakes can be expected along the San Andreas Fault, and that earthquakes of 8.0 or more along this fault can be expected every 200 to 400 years (Prentice, 1989).

The adverse effects of earthquakes result from the physical effects of ground shaking, surface fault rupture, liquefaction, and earthquake-induced landslides; or secondary effects such as fires, tsunamis, seiches, dam failure, and hazardous materials releases. Each of these effects is briefly discussed below.

Ground shaking. Ground shaking from earthquakes affects the greatest number of people and can cause the most damage of any geologic hazard. According to the *California Hazard Mitigation Plan*, damage due to ground shaking produces over 98 percent of all building losses in a typical earthquake.

During an earthquake, the ground can shake for a few seconds or over a minute. The amount (strength and duration) of ground shaking is affected by many factors. Distance from the earthquake epicenter, the point on Earth's surface directly above the focus point of where the earthquake is originating underground, is the most significant factor. However, geologic conditions and the direction, magnitude, and depth of the fault rupture are also critical. Shaking, particularly horizontal shaking, results in the most earthquake damage because structures often have inadequate resistance to this type of motion. Unconsolidated and poorly consolidated alluvium, which is detrital materials such as clay, silt, sand, or gravel that has been deposited by running water, and terrace deposits will undergo greater ground shaking than consolidated bedrock formations. Unstable slopes also may undergo greater ground shaking, increasing the risk of landslides after an earthquake event. Figures C-PS-1a-c show ground shaking hazard potential on the Sonoma County coast based on maps produced by the California Geological Survey.

Ground Failure. Strong ground shaking during earthquakes can also result in ground failure. This risk increases with earthquake magnitude and ground shaking intensity but is also influenced by other factors such as slope, ground moisture, and the type and content of bedrock. Ground shaking on gentle and moderate slopes of poorly consolidated surface deposits can result in differential compaction, settlement and liquefaction. Liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress such as shaking during an earthquake or other sudden change in stress condition, in which material that is ordinarily a solid behaves like a liquid. Damage from ground shaking can be increased by liquefaction and landslides. Liquefaction changes water-saturated soil to a semi-liquid state, removing support from foundations and causing buildings to sink. The most likely areas to experience liquefaction are valleys and tidal marshes with high water tables and sandy soils. Landslides, mudflows, and rock falls can result from ground shaking and are most common on steep slopes but may also occur in areas of gentle slopes due to liquefaction of subsurface materials.

Ground Displacement along Faults. Surface fault ruptures can result from large magnitude earthquakes. Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Structures located within the fault rupture zone are subjected to excessive force. Most structures are not designed to withstand such large deformations and experience major damage. Pipelines crossing the fault zones can also be damaged by ground failure. During the 1906 earthquake, horizontal displacement along the San Andreas Fault averaged 15 feet in Sonoma County. Hazards from surface fault ruptures are generally avoided or minimized by limiting development in active fault zones in compliance with the Alquist-Priolo Earthquake Fault Zoning Act discussed in Section 3 (Geologic Hazards, Regulatory Setting).

Secondary Effects of Earthquakes. Earthquakes can result in additional property damage and human injury from secondary effects. Some earthquakes can result in large tsunami waves along the ocean shoreline or seiches on lakes which can cause damage by their force and by inundation of low-lying developed areas adjacent to the shoreline. Tsunamis and seiches are discussed in greater detail in Section 4 (Flood and Inundation Hazards). In addition, damage to utilities and other public facilities can produce disastrous secondary effects. Much of the destruction from the 1906 earthquake in Sonoma County was from fires that could not be put out due to broken water lines, damaged roads, and lack of communication. In addition, seismic events could trigger slope failure resulting in landslides which block or damage roads and infrastructure. Risks resulting from the secondary effects

of earthquakes can be reduced by various methods, but locating essential facilities and dense populations within high hazard areas increase the potential for damage.

Other Geologic Hazards

The Sonoma County coast has other geologic hazards in addition to those arising from seismic events, which include expansive soils; slope instability, which can result in landslides; and coastal bluff erosion. Erosion is the loosening and transportation of rock and soil debris by wind, rain, or other running water or the gradual wearing away of the upper layers of the earth. Each of these hazards is discussed below. However, unlike other coastal communities, Sonoma County does not experience significant beach sand erosion issues.

Expansive Soils. Buildings, utilities, and roads can be damaged by underlying soils rich in clay that swell each winter and shrink each summer depending on rainfall. This is a less obvious geologic hazard than earthquakes or landslides, but the gradual cracking, settling, and weakening of buildings over time could be significant.

Slope Instability. Slope instability includes landslides and other shallow soil slippage events that involve various forms of mass earth and rock movement downslope. The most common type of slope instability in Sonoma County is landslides. Landslide potential is generally greater on areas of steeper slope and can be triggered by heavy rainfall; earthquakes; road cuts; and construction activities such as grading and filling, placing culverts, and installing septic tanks. Logging, grazing, and removing vegetation may also adversely affect slope stability. Landslides and shallow soil slippage are prevalent in the Coastal Zone. **Figures C-PS-2a-c** show the areas on the Sonoma County coast subject to slope instability.

Landslides and coastal bluff erosion play a role in threatening development along the Sonoma County coastline. Development of homes, septic systems, landscape irrigation, and drainage as well as heavy rainfall and tidal action impact the rate of coastal erosion. Intensive grazing, tilling of slopes, and road construction have resulted in erosion on the Sonoma County coast through shallow slippage, gullying, sheet wash, and wind action. Ongoing coastal erosion has contributed greatly to historic sedimentation of Bodega Harbor, the Estero Americano, and other water bodies. State Highway 1 on the North Coast experiences landslides and erosion to the extent that the road is frequently closed for repair.

Coastal Bluff Erosion. According to the National Academy of Sciences (2012), most of the damage along the California coast is caused by storms, particularly by the confluence of large waves, storm surges, and high astronomical tides during a strong El Niño event; and a rising sea level would magnify the impacts of high waves and storm surges on the coastline. Storms and sea level rise are causing California coastal bluffs, beaches, and dunes to retreat at rates from a few centimeters to several meters per year. Coastal bluff erosion could increase abruptly from an episodic event such as a tsunami or an unusually severe winter storm. The National Academy of Sciences (2012) projects that California coastal bluffs could retreat more than 100 feet by 2100.

While the entire Sonoma Coast is subject to high rates of erosion and frequent landslides, the greatest hazards located between Bodega Bay and the Russian River. This section of the coast is characterized by a broad coastal prairie terminating in a steep bluff that drops 50 to 100 feet down to narrow rocky beaches. In the early 1900's the Bodega-Jenner Highway, later to become Highway 1, was

constructed along the western edge of the coastal prairie. Beginning in the late 1920's, hundreds of small parcels were created in the land west of Highway 1 and sold as vacation home sites. The majority of this development occurred before passage of the Coastal Act, with a substantial number of homes constructed before Sonoma County first required building permits in 1963.

Geologically, the coastal prairie is a thick layer of Franciscan mélangé, which is highly fractured, easily erodible, and unstable. The combination of weak bedrock geology, high rainfall, and direct exposure to storm waves generates one of the highest rates of shoreline retreat in California. As bluff retreat began to threaten existing development west of Highway 1, property owners modified drainage and armored the shoreline, which failed to protect homes and actually accelerated erosion rates.

As of 2019, the greatest hazards from coastal erosion are at Gleason Beach, north of Scotty Creek. When these lots between Highway 1 and the ocean were created in 1927, the average lot was 300 feet deep. Twenty-one homes were developed on these lots. Over time, the ocean eroded the shoreline and finally reached the homes during the winter of 1997-1998, when development was severely damaged by storm wave run up. By February 2006, bluff retreat had reached the developed portions of the lots and five homes partially collapsed and were demolished. By the spring of 2017, only seven houses remained, and the edge of the bluff reached the fog line on Highway 1. Recognizing that previous attempts to stabilize Highway 1 were unsuccessful, Caltrans is now planning to realign this section of Highway 1 approximately 450 feet inland from the current location. The strategy of planned retreat, rather than hardening shoreline protections, will likely be applied more frequently as sea level rise, climate change, and erosion continue to threaten development west of Highway 1. In addition to the risk to existing development, public safety for people accessing the beach would also be at risk from coastal bluff erosion. If official or prescriptive paths or trails to the beach are eroded, people may decide to use unofficial or non-prescriptive routes over unstable bluffs to reach the beach.

Avoidance is the preferred method for minimizing the risk to and vulnerability of development from coastal bluff erosion. In cases where existing development is threatened, the first priority should be to evaluate the feasibility of relocating the development. Only when all other options are deemed infeasible should shoreline protection structures be considered. By appropriately siting new development, the need for a seawall, revetment, or other shoreline protection structure or alteration to the coastal bluff may be avoided.

If a bluff is determined to be stable, the setback from the top of the bluff should be calculated by the bluff retreat times the life expectancy of the house or building to be protected. If the bluff is determined to be unstable, a buffer should be added as a safety factor to the setback from the top of the bluff. The buffer should be calculated through a site-specific quantitative slope stability analysis that incorporates historic data and considers the potential for increased bluff retreat in response to sea level rise. However, due to the unpredictability of episodic erosion, a minimum buffer from the setback from the top of the bluff would be appropriate in all cases.

For purposes of this Local Coastal Plan, the terms bluff, bluff edge, bluff top, embankment, and blufftop redevelopment all have specific meanings, which are defined below and in the Glossary.

Bluff: A high bank or bold headland with a broad, precipitous, sometimes rounded cliff face overlooking a plain or body of water. A bluff may consist of a steep cliff face below and a more sloping upper bluff above.

Commented [A12]: Recommend updating this language to reflect current actions.

Commented [A13]: Please make slope stability analysis a separate policy or define it explicitly as: "A quantitative slope stability analysis prepared by a geotechnical engineer demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, $k=0.15$): Safety and stability must be demonstrated for the predicted position of the bluff and blufftop edge following bluff recession over at least 100 years, considering both historical data and the influence of future sea level rise."

Commented [A14]: See previous comments on redevelopment.

Bluff Edge: The line of intersection between the steeply sloping bluff face and the flat or more gently sloping bluff top; or the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the bluff is rounded away from the face of the bluff as a result of erosion processes related to the presence of the steep bluff face, the bluff line or edge shall be defined as that point nearest the bluff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the bluff. In a case where there is a step-like feature at the top of the bluff face, the landward edge of the topmost riser shall be taken to be the bluff edge. Bluff edges typically retreat landward due to coastal erosion, landslides, development of gullies, or by grading (cut). In areas where the bluff top or bluff face has been cut or notched by grading, the bluff edge shall be the landward most position of either the current or historic bluff edge. In areas where fill has been placed near or over the historic bluff edge, the original natural bluff edge, even if buried beneath fill, shall be taken to be the bluff edge.

Bluff Top: The upper surface of a bluff or cliff.

Blufftop Redevelopment: Structures located between the sea and the inland extent of the sea and the first public road paralleling the sea (or lagoon) that consist of additions, exterior or interior renovations, or demolition of an existing blufftop home or other principal structure which result in:

- (1) Alteration of 50 percent or more of an existing structure, including but not limited to, alteration of 50 percent or more of the roof, foundation, exterior walls, interior load-bearing walls, or a combination of both types of walls, or a 50 percent increase floor area; or
- (2) Demolition, renovation or replacement of less than 50 percent of an existing structure where the proposed remodel would result in cumulative alterations exceeding 50 percent or more of the existing structure taking into consideration previous additions approved on or after the effective date of the Coastal Act (January 1, 1977).

Commented [A15]: See previous comments on redevelopment.

3.2 REGULATORY SETTING

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture by preventing the construction of buildings used for human occupancy on the surface trace of active faults. The Act does not address hazards associated with earthquakes such as ground shaking, landslides, or liquefaction.

Alquist-Priolo Earthquake Fault Zoning Act requires counties to designate Earthquake Fault Zones where movement of the earth's surface has taken place during the last 11,000 years; and to require a geologic report for projects proposed within these zones. The State Geologist has identified active faults and mapped Earthquake Fault Zones around the surface traces of the faults. The maps are provided to local agencies which must regulate development projects within the Earthquake Fault Zones. Figures C-PS-1a-c show the San Andreas Earthquake Fault Zones along the Sonoma County coast.

Seismic Hazards Mapping Act

The 1991 Seismic Hazards Mapping Act seeks to protect the public from the hazards caused by earthquakes. The Act requires the State Geologist to delineate and designate areas subject to strong ground shaking, landslides, and liquefaction as Seismic Hazard Zones; and for the California Geological Survey to prepare maps of these Hazard Zones. Counties must regulate certain types of development projects and withhold the development permits for sites within Seismic Hazard Zones until the geologic and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into the project plans. Counties must also take these Seismic Hazard Zones into account when adopting and revising land use planning and permitting ordinances and reviewing building permits. California Civil Code Sections 1103-1103.14 require disclosure through a Natural Hazard Disclosure Statement in real estate transactions if the property is located in an Earthquake Fault Zone or Seismic Hazard Zone.

Other Seismic Safety Regulations

In addition to the above, several other seismic safety regulations have been developed over the last century. A summary of these regulations is provided below:

- (1) The 1933 Field Act and Other School Seismic Safety Legislation requires thorough reviews of plans, strict inspections, and quality control standards for school construction.
- (2) The 1968 Geologist and Geophysicist Act requires geologic or seismic assessments to be carried out by qualified geologists and geophysicists.
- (3) The 1973 Alfred E. Alquist Hospital Seismic Safety Act requires all hospitals built after 1973 to be built to higher seismic standards so they can be reoccupied and remain functional after major earthquakes.
- (4) The 1979 Beverly Act authorizes creation of a Geologic Hazard Abatement District (GHAD) as a means to reduce geotechnical problems associated with development in geologically active areas such as erosion and failure of coastal bluffs. A GHAD is an independent public entity (public agency) formed as a Board of Directors which oversees the prevention, mitigation, and abatement of geologic hazards. Funding of a GHAD is through supplemental property tax assessments. A GHAD was proposed for shoreline protection and bluff stabilization for the Gleason Beach community in 2003, but was not adopted.
- (5) The 1986 Unreinforced Masonry Building Act requires local jurisdictions to address the life safety risks posed by Unreinforced Masonry (URM) buildings that were constructed before the adoption of seismic-resistant building codes.
- (6) The 1986 Essential Services Building Seismic Safety Act requires that essential services buildings be designed and constructed to be capable of providing essential services to the public after a disaster.

Shoreline Protection Structures

Seawalls, [groins](#), [breakwaters](#), and other shoreline protection structures are hardened structures installed along the coast which provide a physical barrier that armors and stabilizes the shoreline

landward of the structure from the erosive forces of wave action. Shoreline protection structures are typically installed by private landowners or local, state, and federal governments in order to provide stabilization and protection of coastal development from floods, storms, and sea level rise. The use of shoreline protection structures is [acceptable allowable](#) in some circumstances to serve coastal-dependent uses or to protect existing structures or public beaches when designed to eliminate or mitigate adverse impacts.

Although shoreline protection structures can be used to protect coastal development they are not appropriate to use in most circumstances due to the large amount of adverse environmental impacts that they generate. Shoreline protection structures prevent beaches from migrating inland and induce erosion in adjacent unprotected shoreline. These structures also have adverse impacts on recreational beach uses, scenic resources, and the natural supply of sand to shoreline areas [which will be exacerbated by sea level rise](#). [In addition, they also have potential ecological impacts including loss of habitat, creation of habitat for invasive species and effects on dune habitat by preventing natural sand movement](#). Shoreline protection structures also have a [relatively](#) short structural lifespan relative to the high cost of installing and removing the structures. Despite the significant cost of installation, there are instances where the performance of such structures has been inadequate and the erosion and damage they were installed to prevent or reduce still occurs. Remnants of failed shoreline protection structures and collapsed private buildings degrade the natural beauty of the Sonoma County coastline. Clean-up of these structures on the beach can pose a problem due to the high cost of funding a full clean-up or if equipment access to the beach is limited.

Section 30235 of the California Coastal Act allows seawalls and other shoreline protection structures only to protect existing development or public beaches or to serve coastal-dependent uses, and only in certain situations. [Section 30610 allows reconstruction of a shoreline protection structure destroyed by a disaster without a coastal permit under certain conditions, including where the replacement structure is no more than 10 percent larger than the destroyed structure. Section 30611 allows, in the case of a disaster or other emergency, work to protect life and public property not including permanent erection of structures, valued at more than \\$25,000 without a permit.](#)

GOAL C-PS-2: Prevent unnecessary exposure of people and property to risks of injury or damage from earthquakes, landslides, coastal erosion, and other geologic hazards.

Objective C-PS-2.1: [Locate and design new development to reduce the risks of human injury and property damage from existing and anticipated geologic hazards, including coastal bluff erosion, to acceptable levels.](#)

Objective C-PS-2.2: [Minimize the risks of human injury and property damage from existing and anticipated geologic hazards.](#)

Objective C-PS-2.3: [Minimize the need to construct seawalls or other shoreline protection structures to reduce impacts to natural shoreline processes, cultural and biological resources, views, and coastal access.](#)

Commented [A16]: Use full text of coastal act policies instead of paraphrasing, e.g.:

[Section 30235](#) Construction altering natural shoreline. "Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible"

Commented [A17]: See previous comments on acceptable levels.

Commented [A18]: These two policies seem very similar. Please differentiate between the two by clarifying policy language.

Commented [A19]: This should better mirror Coastal Act Section 30235 to provide details on when SPD is allowable, avoidance measures, and required mitigation for such devices.

The following policies, in addition to those in this Public Safety Element and the Open Space and Resource Conservation, Water Resources, and Land Use Elements shall be used to achieve these objectives:

Policy C-PS-2a: Design and construct all structures for human occupancy, including mobile homes, in accordance with Zone 4 standards of the Uniform Building Code. (EXISTING LCP)

Policy C-PS-2b: Enforce the geologic provisions of Chapter 70 of the Uniform Building Code. (EXISTING LCP)

Policy C-PS-2c: Encourage strong enforcement of seismic safety requirements and regulations for design and construction of buildings and facilities subject to state and federal standards, such as bridges, dams, power plants, hospitals, schools, and essential services buildings. (GP2020)

Policy C-PS-2d: Structures intended for human occupancy as defined in the Alquist-Priolo Special Studies Zones Act and related Administrative Code provisions shall be prohibited within 50 feet of the surface trace of any fault in Earthquake Fault Zones. (GP2020)

Policy C-PS-2e: Encourage the consolidation of lots and new structures in high hazard areas. (EXISTING LCP REVISED)

Policy C-PS-2f: A site-specific geologic hazards report prepared by a licensed Geotechnical Engineer, Engineering Geologist, or Geophysicist shall be required for development projects proposed within Geologic Hazard Areas, as shown in **Figures C-PS-1a-cand C-PS-2a-c**. A geologic hazards report shall also be prepared where a site evaluation conducted for a Coastal Permit, building permit or grading permit application has identified that such a report is required. The geologic hazards report shall include the following information:

- (a) Description of the types and locations of the geologic hazards on the project site.
- (b) Analyses of the risks of human injury and property damage from geologic hazards associated with the proposed development, including but not limited to site preparation, grading, installation of septic systems, installation of drainage and road improvements, construction of foundations, and construction of buildings and structures.
- (c) Design siting and construction mitigation measures for the proposed development to minimize the potential for collapse; debris falling on occupants or pedestrians; failure of critical mechanical or electrical systems; releases of large quantities of hazardous or toxic materials; and substantial economic loss from geologic hazards.
- (d) Certification from the Geotechnical Engineer, Engineering Geologist, or Geophysicist that the risks of human injury and property damage from geologic hazards associated with the proposed development have been mitigated to an acceptable level. (NEW)

Commented [A20]: These reference other documents and regulations, and the LCP should stand on its own. These regs need to be adhered to regardless of the LCP so no need to include them here.

Commented [A21]: We recommend clarifying when a site evaluation is conducted, and how is it determined to be needed.

Commented [A22]: See previous comments re: acceptable level

Policy C-PS-2g: As a condition of coastal permit approval for development in mapped Hazard Areas, require the applicant to record a document exempting the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit during the structure's economic life are prohibited. (NEW)

Policy C-PS-2h: Incorporate measures to mitigate to an acceptable level identified geologic hazards for all County road, public facility, and other projects. (GP2020)

Policy C-PS-2i: Applications for new development or redevelopment on coastal bluff property shall be required to include a site-specific coastal bluff erosion hazards report from a licensed Geotechnical Engineer, Engineering Geologist, or Geophysicist that establishes a geologic setback line for proposed new temporary (e.g., gazebos and portable spas) and permanent (e.g., roads, driveways, water lines, drainage improvements, and septic systems and leachfields) structures and infrastructure. This setback shall be no less than 100 feet and shall establish where on the bluff top stability can reasonably be assured for the economic life of the development (no less than 100 years). All new structures for human occupancy and infrastructure located on a bluff top shall be setback to ensure that it will not be endangered by coastal bluff erosion, retreat, and collapse; and thereby avoid the need for shoreline protection devices during the economic life of the development. The effect of any existing shoreline protective devices shall not be factored into the required stability analysis.

The coastal bluff erosion hazards report shall take the following factors into account in establishment of the geologic setback line:

- (1) Proposed extent of grading and site preparation.
- (2) Proposed plans for construction of roads, driveways, foundations, water lines, drainage improvements, and septic systems and leachfields.
- (3) Maximum coastal bluff retreat projected to occur within the economic life of the development (100 years). The projected coastal bluff retreat shall be calculated considering the specific geologic and hydrologic conditions on the site; historic coastal bluff retreat data; projections for future sea level rise according to the most up-to-date science; and existing and projections for changes in storm frequency, magnitude, and duration due to climate change. (NEW)

Policy C-PS-2j: Where existing development is threatened by coastal bluff erosion, the first priority shall be to evaluate the feasibility of relocating the development. The second priority shall be to consider the feasibility of less environmentally damaging alternatives than shoreline protection structures. Only when all other options are deemed infeasible should shoreline protection structures be considered. (NEW)

Commented [A23]: Should not just apply to mapped hazard areas but rather should be more general

Commented [A24]: See earlier comment re: Assumption of Risk policy; note that removal conditions should be included for development in areas that will be impacted by SLR

Commented [A25]: See previous comments re: acceptable level

Commented [A26]: This should be clearer regarding what this is in reference to.

Commented [A27]: See previous comments re: redevelopment

Commented [A28]: We are unclear whether the county wants to allow for a reduced setback for temporary structures. As written, the policy does not allow for this.

Commented [A29]: As stated previously the following should also be calculated in determining the bluff setback. Please include this standard:

A quantitative slope stability analysis prepared by a geotechnical engineer demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, $k=0.15$); Safety and stability must be demonstrated for the predicted position of the bluff and blufftop edge following bluff recession over at least 100 years.

Commented [A30]: See previous comment re: best available science

Commented [A31]: Regardless of feasibility of other alternatives, shoreline protection devices still need to go through a full coastal act review.

This is language from the 2021 certified Half Moon Bay LUP on when Shoreline Protective devices are allowable: "To protect an existing structure in imminent danger from erosion (i.e., when substantial evidence indicates that the structure will be significantly damaged by coastal flooding or erosion hazards within two to three storm cycles, or approximately three years); when found to be the least environmentally damaging feasible alternative (e.g., if relocation or soft armoring approaches cannot mitigate the hazard); and when all coastal resource impacts are appropriately and proportionally mitigated. If allowed shoreline protective devices shall be sited and designed to avoid impacts to coastal resources to the maximum extent feasible, including through preserving the maximum amount of existing beach, protecting lateral public access along the shoreline, protecting and enhancing public views, minimizing alteration of and visually blending with the surrounding natural shoreline; avoiding impacts to ...

Commented [A32]: Please define existing development. Should be defined as pre-coastal act development.

Policy C-PS-2k: Where, as a result of coastal erosion, it is no longer feasible based on size and environmental conditions for a parcel to meet the minimum requirements for development under the Sonoma County Code, the development potential of the parcel may be considered lost due to the forces of nature. There shall be no obligation on the part of the County to restore the development potential of such parcels through Code variances, lot line adjustments, transfer of development rights, or other means. (NEW)

Commented [A33]: We are discussing this proposed policy language internally with our legal staff. In the meantime, please see discussion on 'redevelopment in unique circumstances' in attached cover letter."

Policy C-PS-2l: Avoid shoreline protection device construction, reconstruction, expansion, alteration, and/or replacement unless determined necessary by and compliant with California Coastal Commission and County of Sonoma Standards (**Appendix F**). (NEW)

Policy C-PS-2m: A shoreline protection device shall only be authorized for removal when the protected structure or asset has been removed, or a more appropriate protection option has been identified. In the case of coastal redevelopment, removal of the authorized shoreline protection device shall be required prior to construction of the redeveloped structure. (NEW)

Commented [A34]: We should not be limiting circumstances when shoreline protection devices are authorized for removal; we should be encouraging removal. This language does not seem coastal act consistent. We suggest instead reframing this policy to explain the allowable duration for SPDs. For example (per the Draft Residential Adaptation Guidance):

4 FLOOD AND INUNDATION HAZARDS POLICY

4.1 BACKGROUND

Flooding along rivers and creeks on the Sonoma County coast is a natural, annual phenomenon. Many smaller creeks and drainages along the coast drain smaller areas directly into the ocean without causing the flooding problems that occur on larger watershed basins or river systems. Floods on small streams usually peak and recede quickly, while floods on larger systems like the lower Russian River may not peak for two days or more after the start of a storm and may exceed flood stage for four days or more. In larger drainage basins, streams overflow banks when runoff from the watershed exceeds the capacity of the stream channel to carry the flow. Because the Coastal Zone is a narrow band of land near the coast, most of the flood waters draining to the ocean originate from inland areas outside the Coastal Zone.

F.6 Shoreline Armoring Duration
Shoreline protective devices shall only be authorized until the time when the existing principal structure that is protected by such a device: 1) is no longer present; 2) no longer requires armoring; or 3) is redeveloped. Permittees shall be required to submit a coastal permit application to remove the authorized shoreline protective device within six months of a determination that the shoreline protective device is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring and the device is not needed to protect adjacent development that is still entitled to shoreline armoring. In the case of redevelopment, any potential rights to protection are terminated and removal of the shoreline protective device shall be required as part of demolition and alteration of the structure being redeveloped.

Flooding can move, destroy, or damage buildings, roads, infrastructure, and personal property, not only by inundation but also by the force of flowing waters. Flood damage may weaken building materials and increase mildew, mold, bacteria and other disease vectors. Floods can result in human injury and pose a threat to life. Floods can wash away soil, erode banks, destroy crops, and transport loose objects and flood debris downstream; and may end up degrading Sonoma County beaches or offshore marine habitats.

Commented [A35]: See previous comments re: redevelopment.

Although floods are primarily associated with the overflow of rivers and creeks, damage from flooding and inundation can also result from dam failure, tsunamis, seiches, ocean surges and higher waves during storms, and sea level rise. Localized flooding can also occur from blocked or undersized storm water conveyance channels and infrastructure.

Stream and River Flooding

Flooding is most often associated with an overflowing stream or river. The floodplain is the area adjacent to the watercourse that is subject to recurring inundation from floods.

The magnitude of floods can be described in terms of flow (cubic feet per second), elevation (height above a defined datum), or by the areal extent of flood water inundation. However, the more frequent and universal way of describing flood magnitudes is by their projected recurrence level - the bigger the flood, the more years that would typically be expected to pass statistically before it reoccurs. For instance, a flood level that would occur on average once every two years is referred to as the 2-year flood, and it would statistically have a 50 percent chance of occurring in any given year. A 10-year flood has a 10 percent chance of occurrence, a 50-year flood has a 2 percent chance, a 100-year flood has a 1 percent chance, and a 500-year flood has a 0.2 percent chance of occurring in any given year. Although the recurrence level is based on statistical averages, the actual occurrence of flood events varies and could occur at shorter intervals or even within the same year.

Storms are described in the same way - as the storm event of such a magnitude (amount of rainfall during a specified length of time) that it has a certain percent chance of occurring in any given year. For instance, the 100-year flood is the storm event of such a magnitude that it has a 1 percent chance of occurring in any given year. Similarly, the 10-year storm is a storm event of such a magnitude that it has a 10 percent probability of occurring in any given year.

Floodplains or flood zones are described with reference to the associated flood - as the areal extent of land that would be covered by the flood event of such a magnitude that it has a certain percent chance of occurring in any given year. For instance, the 100-year floodplain is the area that would be covered by the 100-year flood.

The FEMA and Federal Insurance Administration have assessed flood hazards for most major streams in Sonoma County. These assessments are periodically updated to reflect new data from flood studies and actual flood events. The FEMA maps show the 100-year floodplain and are commonly used as the primary source of flooding information for planning and development review and floodplain management. Where the subject river or stream has been studied by detailed hydrologic and hydraulic methods, FEMA may also designate a floodway within the 100-year floodplain. According to FEMA, the floodway is "where the water is likely to be deepest and fastest - the area of the floodplain that should be reserved (kept free of obstructions and development) to allow floodwaters to move downstream." The floodway is generally considered to be the area where the flood risk is highest and the vulnerability of development is greatest.

Currently the Russian River is the only river on the Sonoma County coast for which the 100-year flood plain has been mapped by FEMA, shown on **Figures C-PS-3f-ii, 3g-ii, 3h-ii, and 3j-ii**. It shows the land area adjacent to a watercourse, drainage way, or creek which has been or may be covered by floodwaters. The boundaries of a flood plain are typically described in terms of the magnitude of a flood event such as the "100 year flood plain". Portions of the older unincorporated communities of Duncans Mills and Jenner lie within the 100-year flood zone of the Russian River in the Coastal Zone.

Within the area covered by the 100-year floodplain of the Russian River, the risk of human injury and property damage from flooding increases with the topographic depth, frequency of flooding, and

force of the flood current. Properties within the floodway (approximate 10-year floodplain) would be subject to a greater depth and frequency of flooding and greater magnitude of cross currents than properties within the 25-year or 50-year floodplains. Development is prohibited within the river's floodway because the risk of human injury and property damage in this area is unacceptable.

The greatest threat to public safety and property exists where development is located in areas subject to recurring flooding. The Russian River has the highest frequency of flooding and greatest flood hazards in the Coastal Zone due to the size of its drainage basin and the amount of historic development in the floodplain. The Coastal Zone contains only about 237 of the 1,485 square miles (16 percent) of the Russian River Watershed. Therefore, most of the flood waters from the Russian River draining to the ocean originate from inland areas outside the Coastal Zone.

Dam Failure Inundation Zones

Flooding can also result from dam failure. The area of potential inundation resulting from the failure of a specific dam is designated as the Dam Failure Inundation Zone for that dam. The current mapping of dam failure inundation zones in the Coastal Zone shows that the areas which could be inundated by dam failure are already included in the 100-year flood zone. There are no major dams located within the Coastal Zone.

Coastal Flooding and Storm Surge

Areas designated as the VE Zone on FEMA's Flood Insurance Rate Map (FIRM) are considered to be in a Coastal High Hazard Area subject to high velocity waters from coastal flooding, tidal inundation, and tsunamis. However, FEMA has not designated all potential Coastal High Hazard Areas, and is in the process of updating its mapping of these areas.

Tsunamis

A tsunami is a series of traveling ocean waves, generated by a distant or near-shore undersea earthquake or landslide, that decrease in speed and increase in height as they enter shallow coastal waters. If these waves are much larger than usual, they can become a threat to human life and property by the force of the wave as well as by inundation. Following arrival of the first wave, subsequent waves may increase in height and arrive minutes to hours later. Factors influencing the size and speed of a tsunami include the source and magnitude of the triggering event, water depth, offshore topography, onshore topography, and coastline shape.

The National Oceanic and Atmospheric Administration (NOAA) heads the National Tsunami Mitigation Program, a federal and multi-state initiative to address tsunami hazards in the United States. The Program develops tsunami inundation and evacuation maps for at-risk communities. NOAA, the California Emergency Management Agency (CalEMA), California Geological Survey (CGS), and University of Southern California have conducted systematic analyses of all historic and possible tsunami hazards along the coast of California for the purpose of mapping tsunami run-up zones from nearshore events in these at-risk communities. Based on a comparison of historic tsunami events along the west coast of California and consideration of tidal fluctuations and other factors, a maximum tsunami wave height of 21 feet along the Sonoma County coast could be created by a large seismic event. However, given the limits of available data, and the possibility that future events may

differ from historic events, it is possible that the actual inundation from a tsunami could be greater than currently projected.

For the purposes of this Local Coastal Plan and the *Sonoma County Operational Area Tsunami Response Plan and Evacuation Plan* (part of the *Sonoma County Hazard Mitigation Plan*), a conservative approach was assumed and a maximum tsunami wave height of 25 feet (7.6 meters) along the Sonoma County coast and 5 feet (1.5 meters) in San Pablo Bay were used to identify potential tsunami inundation areas.

Tsunami inundation maps for the Sonoma County coast and San Pablo Bay were released in 2009. The tsunami inundation zone on the Sonoma County coast is shown on **Figures C-PS-3a-k**. Not all tsunamis will inundate all areas in the potential zone. Some tsunamis may be only a few inches or a few feet and affect only a portion of the potential tsunami inundation zone.

Since most of the County coastline is elevated, most areas along the coast are considered safely out of reach of a potential tsunami wave. However, the low-lying coastal communities along the southern Sonoma County coast extending from Jenner to Bodega Bay have area of significant exposure and risk of human injury and property damage because they contain low-lying public beaches, parks, and infrastructure; and residential and commercial development. Although there are no known recorded deaths from a tsunami in Sonoma County, there were small impacts from tsunamis in 1946 and 1960.

Under the California Coastal Analysis and Mapping Project (CCAMP), FEMA is initiating flood studies/mapping projects in coastal areas as a result of Congressional appropriations for flood hazards mapping. These efforts will address gaps in required engineering and mapping for high flood risk areas impacted by coastal flooding. The Open Pacific Coast Study is a component of CCAMP that involves detailed coastal engineering analysis and mapping of the Pacific coast of California. Results from the Open Pacific Coast Study will be used to remap the coastal flood risk and wave hazards for fifteen California counties, including Sonoma County.

Floodplain Management

The primary method of reducing the risk of hazards and impacts from flooding is through floodplain management. In addition to mapping flood hazards, floodplain management may include restrictions on the type and location of land uses and development in the floodplain. Land uses which can sustain periodic flooding and decrease flood hazards downstream would be encouraged. Floodplain management may also include establishing development and construction standards that minimize vulnerability to flood hazards, such as requiring the first floor of structures to be one foot above the base flood elevation. Floodplain management may also include increased retention of stormwater runoff in the watershed, acquisition of property in flood hazard zones, public education and outreach, and other methods which reduce the need for costly construction projects and disaster relief.

Floodplain management is required by federal and state law. Various incentives such as flood insurance, loans, and State funding of flood control projects are offered if flood management practices are followed including measures that are taken to increase the hydrologic capacity of a natural water course or to create new man-made channels or reservoirs to drain and contain precipitation that otherwise exceeds the capacity of the water course, in an effort to reduce flood damage, usually to man made improvements. In Sonoma County, floodplain management has reduced flood damage primarily by limiting the kind and extent of new construction in flood hazard areas and by elevating

existing structures above the base flood elevation. However, property damage from flooding is still a major and persistent problem along the Russian River, which has resulted in Sonoma County having the highest rate of repetitive property losses from flooding in California; and which indicates that a more proactive approach is needed.

The floodplain policies of this Local Coastal Plan are intended to limit development within 100-year flood plain areas; require compliance with siting, development, and constructions standards to minimize the risk of flood hazards for new development; and collaborating and participating in the County’s multi-strategy approach to reduce repetitive flood loss properties and minimize the risks for existing development.

4.2 REGULATORY SETTING

Section 30253 of the 1976 California Coastal Act, directs that new development minimize risks to life and property in areas of high geologic, flood, and fire hazard. Section 30236 of the 1976 California Coastal Act addresses the situations in which rivers and streams may be substantially altered for flood control projects – only where no other method for protecting existing structures in the floodplain is feasible, and where such protection is necessary for public safety or to protect existing structures

GOAL C-PS-3: Prevent unnecessary exposure of people and property to risks of human injury and property damage from flooding and other types of inundation hazards

Objective C-PS-3.1: Regulate new development to reduce the risks of human injury and property damage from existing and anticipated flood hazards to acceptable levels.

Objective C-PS-3.2: Minimize risks of human injury and property damage for existing development within flood hazard areas with an emphasis on reducing repetitive property losses.

The following policies, in addition to others in this Public Safety Element and those in the Open Space and Resource Conservation, Water Resources, and Land Use Elements, shall be used to achieve these objectives:

Policy C-PS-3a: Any area that would be inundated by a 100-year flood event shall be considered to be a flood hazard zone. The Flood Insurance Rate Maps (Flood Rate Maps) adopted by FEMA shall be used as the official source of flood elevation data and flood hazard zone mapping and the 100-year flood and to support the National Flood Insurance Program (NFIP) and associated flood insurance studies. Land use planning and development review shall be based on the Flood Rate Maps except where more detailed parcel-specific and site-specific analyses of flood elevations and flood hazard zones based on scaled interpretations of the Flood Rate Maps are available. Where local analyses indicate flood elevations or flood hazard zones which differ from the adopted Flood Rate Maps, such data shall be provided to FEMA so they may be amended. (NEW/GP2020)

Policy C-PS-3b: Floodplain management shall be given priority over flood control structures for preventing property damage from flooding, except where the intensity of development

Commented [A36]: Recommend explicitly noting in this section that flooding in coastal areas, including tidally-influenced portions of streams/rivers will be exacerbated by sea level rise and such areas will need to consider SLR as specified by the policies in the next section and/or adding SLR considerations to applicable policies in this section. These policies do not appear to address areas subject to SLR flood zones past FEMA flood zones. Other Initiative C-PS-2 does say to encourage FEMA to include SLR flood predictions, but until that happens, these policies should address flooding in SLR flood zones as well

Commented [A37]: Use full text of coastal act policies instead of paraphrasing

Commented [A38]: Another goal or objective should be to collaborate with neighboring coastal counties (Mendocino and Marin) to effectively leverage resources.

Commented [A39]: See previous comment re: “acceptable levels”

Commented [A40]: Policy should describe how reduction of repetitive property loss will be accomplished.

Commented [A41]: Since these maps don’t include SLR, this policy alone won’t ensure safety of development over its anticipated lifetime.

Commented [A42]: Flood hazard zones should also include potential SLR flood zones, as discussed.

Commented [A43]: Nature-based floodplain management should especially be prioritized when possible to ensure maximum services associated with these strategies.

~~requires a high level of protection for flood control projects where no other measure is feasible AND where protection is necessary for public safety or to protect existing development, justifies the costs of a bank or shoreline protection structure, and such structure complies with requirements of the California Coastal Act and shoreline protection structure requirements of this Public Safety Element. (GP2020)~~

Commented [A44]: This should be specific to relevant Coastal Act policy Section 30236.

Policy C-PS-3c: Encourage increased stormwater retention and decreased stormwater runoff both within and outside of the Coastal Zone to reduce flooding within the Coastal Zone. Floodplain storage capacity shall be preserved by avoiding fill in areas outside of the FEMA 100-year flood hazard zones which retain or could retain flood waters. (GP2020)

Policy C-PS-3d: New development, water diversion, vegetation removal, and grading shall be regulated to minimize any increase in flooding and related human injury and property damage ~~and shall comply with the provisions of the Coastal Act and Sonoma County LCP.~~ (GP2020)

Commented [A45]: If we are adding this, can you provide specific reference to which Coastal Act sections?

Policy C-PS-3e: Drainage facilities shall be designed to minimize off-site drainage and flooding according to the most current County flood control and design criteria. Alternative bio-engineered drainage designs (e.g., low impact development techniques) are preferred and shall be proposed where they provide adequate capacity and performance to handle expected stormwater flows. The cost of drainage facilities required to handle stormwater runoff from new development shall be the responsibility of the new development. (GP2020)

Commented [A46]: Not necessarily here, but would recommend addressing somewhere that drainage/stormwater mgmt. (and related policies) should account for increased water as a result of SLR and other climate change impacts.

Policy C-PS-3f: Construction of structures within 100 feet of the top of any natural or manmade embankment which defines a channel shall be prohibited, except where Permit Sonoma finds the flood hazard risk to life and property has been minimized. Reductions to building setbacks in 100-year floodplains shall be avoided. Where this policy conflicts with **C-OSRC-5c(2)** of the Open Space and Resource Conservation Element, the more restrictive of the two shall apply. (EXISTING LCP REVISED)

Commented [A47]: Should specify: 1) That floodbank setback should be adhered to unless risk has been minimized and impacts to coastal resources have been avoided or minimized to the maximum extent feasible; 2) Whether this policy would apply to redevelopment in flood hazard areas along the shoreline (ocean and riverine); and 3) Would recommend this setback be based on expected risk in the event that >100-ft setback is needed.

Policy C-PS-3g: Assess potential hazards from proposed development on a ~~case-by-case~~ site specific basis to ensure that siting, mitigation measures, or design changes are sufficient to reduce exposure to these hazards to an acceptable level. Such assessments shall consider hazards from river and creek flooding, dam failure, storm surge and high waves during storms, sea level rise, and undersized or blocked stormwater facilities. (NEW)

Commented [A48]: See previous comments re: "acceptable levels"

Policy C-PS-3h: New dwellings shall be prohibited in Tsunami Hazard Zones. (EXISTING LCP REVISED)

Policy C-PS-3i: Tentative and final subdivision maps and approved site plans shall show areas subject to flooding as designated on the Flood Rate Maps adopted by the FEMA ~~except where more detailed parcel-specific and site-specific analyses of flood elevations and flood hazard zones based on scaled interpretations of the Flood Rate Maps are available~~ (GP2020)

Commented [A49]: See previous comments on SLR not being incorporated into FEMA Flood Rate Maps.

Policy C-PS-3j: Evaluate potential flood and inundation hazards for development projects relative to potential repetitive property loss, and incorporate mitigation measures to reduce the potential for human injury and property damage to a level of less than significant. Evaluate impacts from sea level rise, and storm inundation events. Consider unique coastal characteristics, infrastructure, and adaptive capacity in project design. (GP2020 REVISED)

Policy C-PS-3k: Work with County Departments, responsible agencies, public, and other stakeholders to develop and implement a long-term plan for reducing repetitive property losses from flooding as detailed in Policy PS-2d of General Plan 2020. Conduct ongoing flood monitoring, implementation of the Local Hazard Mitigation Plan, consider participation in federal hazard programs. (GP2020)

5 SEA LEVEL RISE HAZARDS POLICY

5.1 BACKGROUND

Sea level rise has been taking place since the end of the last Ice Age, about 20,000 years ago before the beginning of human history. Recent studies suggest that as a result of global climate change, sea level rise will accelerate during the coming decades and increase significantly over the next 100 years and beyond.

Sea level rise has been recognized as a significant threat to low-lying coastal areas around the world since the issue of global climate change influenced by human activities emerged in the 1980s. People, property, and biotic resources in low lying coastal areas face a long-term threat of inundation as a result of sea level rise; and the potential damages to property, biotic resources, and infrastructure may be considerable. Many coastal communities and infrastructure will be threatened by increased frequencies and intensities of flooding and gradual inundation as sea level rises. Higher ocean levels will also increase creek and river flooding, coastal bluff and shoreline erosion, and the impacts of tsunamis.

Section 30006.5 of the California Coastal Act identifies sea level rise as one of the topics for which additional scientific and technical analysis and recommendations are necessary to aid coastal planning, conservation, and development decisions. This Local Coastal Plan includes policies to address hazards from sea level rise to enhance the safety of residents and visitors, while providing a framework for consideration and permitting of coastal development projects. This Local Coastal Plan acknowledges the threat of sea level rise and supports appropriate responses, while recognizing that sea level rise is a global rather than a purely local issue.

California Coast Sea Level Rise

Although global sea level rise has been fairly gradual, Coastal California has experienced noticeable sea level rise for at least the past century. According to the *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), sea level has risen by an average of about 7 inches along California's 1100-mile coastline during the past century. According to *The Impacts of Sea-Level Rise on the California Coast* prepared by the California Climate Change Center in partnership with the

Commented [A50]: This was greatly reduced in detail from the 2019 version, please explain why this was removed.

Where information does not exist to adequately assess the on-site and off-site flood and inundation hazards from a proposed development, to develop mitigation measures, or to determine compliance of an existing or proposed development with the Coastal Zoning Ordinance, a supplemental site-specific flood and inundation hazards analysis shall be required. The site-specific analysis may include but is not limited to:

- (1) . Topographic mapping.
- (2) . Analysis of the influence of sea level rise on flood elevations and flood and inundation hazards and zones.
- (3) . Delineation of flood and inundation hazard zones.
- (4) . Calculation of expected flood elevations.
- (5) . Calculation of expected flood velocity.
- (6) . Analysis of the impacts on on-site and off-site flooding, drainage, and stormwater runoff.
- (7) . Using construction details and specifications, analysis of compliance with the Coastal Zoning Ordinance.
- (8) . Using cost and appraisal data, analysis of when reconstruction, rehabilitation, additions, or other improvements to structures would constitute a substantial improvement under the Sonoma County Code.
- (9) . Development of mitigation measures to reduce or eliminate the potential for human injury and property loss from flood and inundation hazards, particularly in areas subject to repetitive property loss.

Commented [A51]: This should be defined.

Commented [A52]: There needs to be more details on doing a site specific hazards analysis over the course of the lifetime of development.

Sample Language from the 2021 certified HMB LCP:

"7-12. Site-Specific Shoreline Hazards Evaluation. All new development proposed in areas that may be subject to shoreline hazards, including all beaches and beachfronts, bluffs, and areas mapped in Figure 7-1, shall require the submittal of a site-specific evaluation report of shoreline hazard risks over the anticipated life of the proposed development. Analyses shall be conducted by { ...

Commented [A53]: Please explain where this fact came from. We recommend instead focusing this discussion on the fact that SLR has intensified due to anthropogenic causes

Commented [A54]: Use full text of coastal act policies instead of paraphrasing

Pacific Institute (Heberger et al. 2009; referred to as the Pacific Institute Report), under medium to medium high levels of greenhouse gas emissions, the mean sea level along the California Coast will rise from 3.3 to 4.6 feet by year 2100.

The best available science and guidance on sea level rise on the Pacific Coast is in *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (National Academy of Sciences 2012; National Academy Report). The National Academy Report clarifies that variation in land motion complicates the issue of sea level rise, because in the immediate future it is relative sea level rise at any particular location along the West Coast, combined with short-term increases in sea level during coastal storms and high tides that matter to individual communities, rather than global sea level rise alone. The National Academy Report found a steep change in projected sea level rise at Cape Mendocino in Humboldt County due to tectonic uplift. The report states that much of the land on the coast north of Cape Mendocino is rising at up to 0.1 inch per year, whereas the land on the coast south of Cape Mendocino is sinking at an average rate of about half that. As a result, relative sea level north of Cape Mendocino has been falling over the past ten decades while the level south of Cape Mendocino has been rising.

Storms and Sea Level Rise. Storms and flooding in California typically occur during the winter from November to April and are influenced by several climate patterns, most prominently the El Niño Southern Oscillation. Every two to seven years, the Southern Oscillation alternates between two phases, La Niña and El Niño. In contrast to La Niña, “El Niño years” generally result in persistently low air pressure, greater rainfall, and high winds.). The water levels reached during these large, short-term events have exceeded mean sea levels projected for year 2100, so understanding their additive effects is crucial for coastal planning.

Low air pressure during a storm causes an immediate rise in sea level above predicted tides, referred to as storm surge. It also increases wind activity, generating erosive waves on top of the already high sea level. This combination of factors during an El Niño event can cause widespread damage in coastal areas. As sea level rises, flooding from storms will become more frequent and potentially more hazardous.

Impacts. Rising sea levels, large coastal storms, and extreme high tides contribute to flooding and erosion that threatens California coastal communities. Rising seas increase the risk of coastal flooding, storm surge inundation, bluff and coastal erosion, shoreline retreat, saltwater intrusion, and wetland loss or migration. The net result of coastal storms and sea level rise is coastline retreat, ranging from a few centimeters per year for bluffs made of resistant bedrock to several meters for beaches and dunes. These rates of coastline retreat will increase with rising sea levels and are likely to further increase if waves become higher (National Academy Report). The impacts of sea level rise will vary according to local factors such as shoreline characteristics and topography, the location and extent of development, and local drainage and wind patterns.

According to the Pacific Institute Report, nearly half a million Californians will be at risk from future sea level rise. California has the nation’s largest ocean economy, valued at about \$47 billion/year, with the majority connected to coastal recreation and tourism as well as shipping and ports. Many of the facilities and much of the infrastructure supporting these industries, as well as the state’s many miles of public beaches, are within just a few feet of present sea level. Sea level rise will result in more frequent flooding and gradual inundation, as well as increased bluff, dune, and shoreline

Commented [A55]: Recommend updating this language to reflect the updated OPC SLR reports. For example:

The State of California has long-supported the development of scientific information on climate change and sea level rise to help guide planning and decision-making. Most recently, in April 2017, a working group of the Ocean Protection Council’s (OPC) Science Advisory Team released *Rising Seas in California: An Update on Sea-Level Rise Science*. This report synthesizes recent evolving research on sea level rise science, notably including a discussion of probabilistic sea level rise projections as well as the potential for rapid ice loss leading to extreme sea level rise. This study projected that there could be approximately 6 feet of sea level rise by 2100, or upwards of 10 feet under an extreme scenario. This science synthesis was integrated into the OPC’s *State of California Sea-Level Rise Guidance 2018 Update*. This Guidance document provides high-level, statewide recommendations for state agencies, local jurisdictions, and other stakeholders to follow when analyzing sea level rise. Notably, it provides a set of projections that OPC recommends using when assessing potential sea level rise vulnerabilities for various projects. Taken together, the Rising Seas science report and updated State Guidance account for the current best available science on sea level rise for the State of California, and these projections have been incorporated into the Coastal Commission’s Sea Level Rise Policy Guidance (2018 Science Update).

Commented [A56]: Indicate date associated with this report.

Commented [A57]: Indicate date associated with this report.

erosion. This flooding and erosion will affect transportation facilities, utility systems, storm water systems, ports and harbors, large wetland areas, and coastal development (i.e., homes and businesses).

Projected Sea Level Rise on the Sonoma County Coast

Climate change is affecting natural and built systems around the world, including the California coast. In the past century, average global temperature has increased about 1.4°F, and average global sea level has increased 7 to 8 inches. Sea level at the San Francisco tide gauge has risen 8 inches over the past century, and the National Research Council (NRC) projects that by 2100, sea level in California south of Cape Mendocino may rise 66 inches. The Sonoma County Focused Vulnerability Assessment for Bodega Bay research shows that in the worst case scenario, sea-level could rise 78 inches by 2100 as shown in **Table C-PS-1**. The two major causes of global sea level rise are thermal expansion of warming oceans and the melting of land-based glaciers and polar ice caps. While Sonoma County’s ocean coast regularly experiences erosion, flooding, and significant storm events, sea level rise would exacerbate these natural processes, and lead to significant social, environmental, and economic impacts. The third National Climate Assessment cites strong evidence showing that the cost of doing nothing exceeds the costs associated with adapting to sea level rise by 4 to 10 times. Therefore, it is critically important that Sonoma County plan and prepare to adapt to sea level rise to ensure public resources and coastal communities are resilient for present and future generations. Future Development considerations should include future vulnerabilities to sea level rise and corresponding habitat migration.

Table C-PS-1. Focused Vulnerability Assessment Sea Level Rise Projections

Scenario	Projected Sea Level Rise	
	feet	cm
1 - 2016	0	0
2 - 2030	0.83	25
3 - 2050	1.67	50
4 – 2100 Best Case	3.33	100
5 – 2100 Worst Case	6.56	200

Sea level rise inundation maps were prepared for Sonoma County using the Pacific Institute Report’s projected sea level rise, together with 100-year fluvial flood events for year 2100. **Figures C-PS-4a-c** illustrate the areas along the Sonoma County coast at risk from erosion, and **Figures C-PS-3a-k** illustrate the areas at risk from permanent inundation and temporary flooding as a result of sea level rise during a 100-year storm event by year 2100.

Sonoma County Planning staff examined the digital data from the Pacific Institute Report that was used to prepare **Figures C-PS-3a-k**. **Table C-PS-2** shows, by SubArea, the public roads, State facilities, and County facilities projected to be permanently inundated or temporarily flooded as a result of sea level rise and the 100-year coastal storm event by year 2100. In addition to the public roads and facilities listed in **Table C-PS-2**, numerous residential, commercial, recreational, and vacant properties and portions of the California Coastal Trail are projected to also be inundated or flooded.

Sea Level Rise Vulnerability Assessment for the Sonoma Coast. In May 2017 Sonoma County completed a sea level rise adaptation planning effort for the Sonoma Coast. The County first conducted a general assessment of the coastal areas, communities, land uses, development, and public facilities most vulnerable to sea level rise impacts to prioritize development of community-specific

Commented [A58]: Please put dates associated with all the cited reports in this section.

Commented [A59]: This language should be updated to reflect the 2018 OPC State SLR Guidance, which projects 7.0-10.3 ft of SLR by 2100 (medium-high and extreme scenarios at the Point Reyes tide gauge)

Commented [A60]: Should specify under what scenario. At minimum? At maximum?

Commented [A61]: Reframe to explain that the high scenario analyzed in the vulnerability assessment was 78 inches, though SLR could be higher per the more recent projections

Commented [A62]: Similar to above comment, discussion of this vulnerability assessment, the above table, and the inundation maps should note that they were completed prior to the updated projections in the 2018 OPC Guidance, and therefore show lesser amounts of SLR, and may underestimate the amount of SLR that could occur by 2100.

Commented [A63]: Note the specific SLR projection used rather than the year.

focused vulnerability assessments. The *Sonoma County Coast General Vulnerability Assessment* was completed in June 2016. The *General Vulnerability Assessment* depicts the inundation from sea-level rise in 1-foot increments up to 6 feet (~~2100 scenario~~[which, based on the medium-high projection scenario in the 2018 State Sea Level Rise Guidance could occur as soon as 2095](#)). The results are those SubAreas with a relative vulnerability of “high” are Highcliffs/Muniz-Jenner (SubArea 6), Pacific View/Willow Creek (SubArea 8), and State Beach-Bodega Bay (SubArea 9).

Based on these results, the County identified the community of Bodega Bay as the subject for a focused vulnerability assessment. The *Bodega Bay Focused Vulnerability Assessment and Adaptation Strategies* (Vulnerability Assessment) and recommendations are located in **Appendix G**.

Commented [A64]: Consider adding a paragraph summary of main findings from Appendix G.

DRAFT

Table C-PS-2. Public Roads, State Facilities, and County Facilities on the Sonoma County Coast Potentially Inundated or Flooded as a Result of Sea Level Rise and the 100-Year Flood by Year 2100

SubArea	Public Roads	State Facilities	County Facilities
1 The Sea Ranch North	Highway 1	<i>Del Mar Landing State Ecological Reserve</i>	<i>Gualala Point Regional Park & Beach</i> <i>The Sea Ranch Access Trails:</i> Bluff-Top; Salal; and Walk-on Beach
2 The Sea Ranch South			<i>The Sea Ranch Access Trails:</i> Shell Beach; Stengel Beach; Pebble Beach; and Black Point Beach
4 Salt Point		<i>Salt Point State Park:</i> Fisk Mill Cove; Gerstle Cove; Horseshoe Cove; Horseshoe Point; Salt Point; and Stump Beach	
5 Timber Cove/ Fort Ross	Highway 1	<i>Fort Ross State Historic Park:</i> Fort Ross Cove; Kohlmer Gulch; Sandy Cove; and Windermere Point	<i>Stillwater Cove Regional Park:</i> Stillwater Cove & Boat Launch; Stillwater Cove Expansion: Pocket Cove and Bluff Trail – Ocean Cove to Stillwater Cove
7 Duncans Mills	Highway 1 Hwy 116 B Street Freezeout Rd Main St Moscow Rd Steelhead Blvd	<i>Sonoma Coast State Park Access Trails:</i> Duncans Mills River; Rancho del Paradiso - Freezeout River; Steelhead Boulevard River; and Willow Creek - Freezeout	
8 Pacific View/ Willow Creek	State Highway 1 Emery Rd Willow Creek Rd Wrights Beach Access Rd	<i>Sonoma Coast State Park & Beach:</i> Arched Rock; Duncans Cove, Point, & Landing; Penny Island; Blind Beach; Furlong Gulch Beach; Goat Rock Beach; Mann Beach; No Name Beach; North Portuguese Beach; Portuguese Beach; Wrights Beach; Monte Rio to Willow Creek Trail; and Willow Creek Campground & River Access Trail	<i>Doran Regional Park & Beach</i>

Commented [A65]: If there is any private development that could generally be noted in these tables, please incorporate.

Commented [A66]: This should state the specific amount of SLR rather than the year.

Sonoma County Local Coastal Plan | Public Review Draft
Public Safety Element

SubArea	Public Roads	State Facilities	County Facilities
9 State Beach/ Bodega Bay	Highway 1 Bay Flat Rd Bean Ave Brooke Rd Churchill St Doran Beach Rd Driftwood Rd Extension–Westshore to Whaleship Roads Maryana Dr Ocean View Ave Shaw Ct Smith Brothers Rd Westshore Rd	<i>Bodega Dunes Campground</i> <i>Sonoma Coast State Park:</i> North Salmon Creek Beach and South Salmon Creek Beach (<i>Doran Regional Park: U.S. Coast Guard facility</i>)	<i>Birdwalk Loop Trail</i> <i>Doran Regional Park & Beach:</i> Doran Beach; Doran Beach Road; Jetty Day Use Area; Miwok Tent Campground; boat launch & parking; and visitor’s center/ operations <i>Westside Regional Park:</i> boat launch; RV & tent campsites; and parking <i>Mason’s Marina, Spud Point Marina, Bodega Bay Sport Fishing Center:</i> onshore facilities
10 Valley Ford	Highway 1 John’s St Middle Rd School St (Main St) Valley Ford – Estero Rd Valley Ford – Freestone Rd Valley Ford Rd		<i>Gold Ridge Soil Conservation District Office</i>
<p>Notes: ¹ Pacific Institute Report (Heberger et al., 2009) ² The County’s hazards maps and tables can be used as a resource for identification of potential hazard areas and vulnerable properties; however, absence of maps alone cannot be considered absence of hazard, and local site conditions must be examined using the best available science.</p>			

Exposure to Inundation and Erosion

As part of the Sonoma County coast sea level rise adaptation planning effort funded by the Ocean Protection Council, the Center for Ocean Solutions analyzed the relative exposure of coastline areas to erosion and sedimentation caused by storms, and the role of natural habitat in reducing this exposure (Hartge et. al., 2016a).

The Center of Ocean Solutions (COS) and the National Capital Project (NCP) have conducted spatial analyses areas along the Sonoma County coastline at risk of erosion and inundation caused by storms. In addition, the analyses evaluated the role of natural habitat in reducing coastal exposure in Sonoma County. The information below summarizes the findings for the spatial analyses under a 2030 sea level rise scenario (National Academies of Science, 2012).

Figures C-PS-4a-c depict the findings of the analyses of coastal exposure for Sonoma County to erosion and inundation caused by storms under a 2030 sea level rise scenario. The coastal exposure values reflect the relative exposure of different coastline segments to erosion and inundation caused by coastal storms. The map is based on spatial data that includes the 2030 projection for sea level rise, coastal geomorphology, coastal topography and bathymetry, surge potential, wind and wave exposure, natural habitats, and human population. This mapping approach is qualitative and provides a broad overview of the spatial patterns of coastal exposure along the Sonoma County coastline to help prioritize future nature-based adaptation planning strategies for specific locations.

The habitats fringing a coastline attenuate waves and thus reduce storm-related damage to shorelines from erosion and inundation. North of the Russian River mouth to the northern extent of Sonoma County, kelp forest habitat backed by rocky cliffs dominate the landscape and are generally low exposure. In contrast, south of the Russian River mouth, a greater diversity of habitats (e.g., wetlands, beaches, dune systems) are present and are habitats that are highly exposed to erosion and inundation during storms compared to north of the River mouth. As coastal development and rising sea levels alter or damage these habitats, coastlines and nearby infrastructure become increasingly vulnerable to storms.

Coastal habitats provide an ecosystem service by reducing the impacts of storms and by increasing resilience in coastal areas. However, with ever increasing stresses on ecosystems, it is important to identify where natural habitats provide the greatest benefits to prioritize adaptation planning efforts that protect or restore those critical natural habitats. The habitat types which provide the highest level of natural protection have been identified and mapped.

Figures C-PS-5a-c depict the areas along the Sonoma County coastline in which natural habitat plays a role in reducing exposure to erosion and inundation during storms. For example, the dark brown areas in Doran Beach and south of Salmon Creek indicate locations where habitats play the largest role in reducing exposure. The lighter tones in the map also indicate where habitat areas provide a protective coastal ecosystem service.

Adaptation to Sea Level Rise

Much is at stake from sea level rise, and in order to minimize damage and losses, California's coastal communities must make adaptation to sea level rise a priority by conducting community sea level rise vulnerability and risk assessments and developing a Sea Level Rise Adaptation Plan. Developing a risk

Commented [A67]: This should note the amount of SLR analyzed rather than just the year.

Commented [A68]: Same comment.

assessment involves considering the actual or future threats or hazards of concern, the economic importance or value of public facilities and infrastructure to the community, and the certainty of projected impacts to the degree that these are known or can be expected. Developing a Sea Level Rise Adaptation Plan involves setting goals, identifying objectives and adaptation measures, developing adaptation strategies for different types of land uses and facilities. The Adaptation Plan should consider public access, unique water dependent infrastructure, inundation caused by storm events, salt water intrusion, and consistency across any state and federal sea level rise projections.

In any coastal community there are three types of areas to be considered for adaptation planning: (1) undeveloped land that is considered or zoned to be developable; (2) existing unprotected development, including residential and commercial areas as well as infrastructure; and (3) existing development that has already been armored. The major armored area along the Sonoma County coast is a portion of the residential development above Gleason Beach. The Gleason Beach Highway 1 Realignment project proposed by Caltrans is an example of a “retreat” adaptation strategy. The proposal is to realign a 3,700 foot, two-lane section of Highway 1 about 400 feet inland of the current alignment at Gleason Beach. The purpose of the project is to provide a safe transportation facility that is no longer vulnerable to advancing coastal erosion.

Adaptation strategies for private property may be different or more difficult from those appropriate for and public property. Over a longer timescale, the cost of restricting or limiting new development in areas vulnerable to the hazards or impacts from sea level rise is far lower than the cost of addressing damaged or threatened development. For existing private development in vulnerable areas, potential strategies for addressing the impacts from sea level rise include:

- (1) Develop incentives for planned retreat or relocation from vulnerable areas; establish mandatory rolling setbacks for future development or significant redevelopment in areas that are likely to be affected by the impacts from sea level rise within the anticipated lifetime of the structures.
- (2) Develop a plan and identify funding or other incentives for purchase or relocation of existing structures out of vulnerable areas.
- (3) Restrict rebuilding of structures in vulnerable areas that have been damaged by storms or the impacts from sea level rise.
- (4) Evaluate existing armored areas to determine whether additional armor or retreat is the most practical long-term approach.
- (5) Reduce and eliminate dependence on shoreline protection structures; there may be some critical structures where armoring may provide short-term protection until other long-term solutions can be implemented.

Commented [A69]: See previous comments re: Redevelopment

For existing public infrastructure or community resources including ports, and public trust uses such as navigation and recreation, strategies for addressing the impacts from sea level rise include:

- (1) Develop retreat or retrofit plans for existing infrastructure subject to future flooding, and remove and relocate or replace the infrastructure according to the plans.

- (2) Increase adaptive capacity of shoreline roads, and determine the feasibility of relocating shoreline roads and increasing culvert and roadside ditch capacity. Work with entities such as Caltrans that plan, construct, or operate infrastructure.
- (3) Modify the Local Coastal Plan Public Access Element and Public Access Plan to ensure long-term protection of the function and connectivity of existing public access and recreation resources.
- (4) Site and design all future projects and infrastructure to account for sea level rise projections based on the best available science and the projected life spans of the structures and facilities.
- (5) Reduce and eliminate dependence on shoreline protection structures; there may be some critical structures where armoring may provide short-term protection until other long-term solutions can be implemented.

Based on the costs and benefits as well as the risks, the adaptation plan should then identify the threshold at which the community should take action to prevent, reduce, or adapt to impacts from sea level rise. For example, a coastal park or parking lot can be used intermittently for a long time with periodic winter flooding, but a water or wastewater treatment plant at or near beach elevation must be retrofitted, relocated, or replaced well in advance of facility flooding or failure to ensure continued public services.

For new development in vulnerable areas, potential strategies for addressing the impacts from sea level rise include:

- (1) Consider revising Local Coastal Plan land use, siting, and design standards for new development to avoid and minimize risks.
- (2) Evaluate policies and standards for wetland, ESHA, and stream buffers to ensure protection of sensitive habitat into the future and to maximize the role natural habitats can play in reducing the impacts of sea level rise.
- (3) Consider revising bluff erosion rates and setback standards to avoid and minimize risks.

GOAL C-PS-4: Prevent unnecessary exposure of people and property to risks of injury or damage from sea level rise.

Objective C-PS-4.1: Regulate new development to reduce the risks of human injury or property damage in areas subject to projected future sea level rise and other coastal hazards to an acceptable level, incorporating adaptive capacity in design and operation when hazard risk exceeds a project-specific threshold.

Objective C-PS-4.2: Minimize the risks for existing development, of human health, and safety, injury and property damage from projected future sea level rise and other coastal hazards to an acceptable level.

Objective C-PS-4.3: Assess what existing development, and public facilities, and infrastructure, and other coastal resources are vulnerable to projected future sea level rise and other coastal hazards.

Commented [A70]: See previous comments on “acceptable levels”.

Commented [A71]: Please indicate how a project-specific threshold would be determined.

Commented [A72]: As previously discussed, existing development should be defined as pre-Coastal Act development. In addition, this objective needs to be qualified by indicating that minimization of risks will still need to be consistent with LCP and Coastal Act policies regarding when and where new development and shoreline armoring is allowable

Commented [A73]: See previous comments on “acceptable levels”.

Objective C-PS-4.4: Assess the risks to and potential impacts on existing development, ~~and~~ public facilities, ~~and~~ infrastructure, and other coastal resources from projected future sea level rise, inundation from seasonal storm events, and other coastal hazards.

Commented [A74]: Please indicate whether there is a timeline on this policy; if there is there a deliverable such as an assessment on a bi-annual basis; the intent of this policy and how it is intended to be used; and if it is tied to best available science.

Objective C-PS-4.5: Develop a plan for community adaptation to projected future sea level rise and other coastal hazards to reduce the risks and impacts to an acceptable level.

Commented [A75]: See previous comments on "acceptable levels".

The following policies, in addition to others in this Public Safety Element and those in the Open Space and Resource Conservation, Water Resources, and Land Use Elements, shall be used to achieve these objectives:

Policy C-PS-4a: For the purposes of vulnerability and risk assessments, mapping, land use planning, and adaptation planning, consider the areas projected to be inundated by sea level ~~rise by 2100~~ over the next 100 years (including under projected high tides, high water conditions in combination with high tides, and with wave and wind impacts during storm events) to be potentially hazardous areas at risk of flooding using the best available scientific estimates, aligning with projections used by regional, state and federal agencies. (NEW)

Policy C-PS-4b: Use the best available science and technical analyses available in combination with site-specific information when evaluating land use or development proposals in areas subject to sea level rise and other coastal hazards. (NEW)

Commented [A76]: See previous comment and sample language for "Best available science"

Policy C-PS-4c: Applications for Coastal Development Permits for development potentially subject to hazards from projected sea level rise, shall include a geologic/flood hazards report prepared by a licensed Geotechnical Engineer that evaluates the potential risk from inundation and/or coastal erosion over the economic life (100 years) of the development. The report shall evaluate a range projected sea level rise, including medium-high and extreme scenarios, based on the latest state guidance and include recommendations on development location, design, and construction to reduce risk from coastal hazards and enhance adaptability of the development coast. (NEW)

Commented [A77]: Indicate what the range spans.

Commented [A78]: Seems like a typo.

Policy C-PS-4d: New development shall be set back a sufficient distance landward or otherwise sited and designed to avoid or minimize, to the maximum extent feasible, impacts from inundation and/or coastal erosion resulting from the extent of projected sea level rise, storm events, and other coastal hazards based on the best available science over the expected economic life of the development (100 years) without the need for a shoreline protective device. (NEW)

Commented [A79]: There is concern that this may allow a project designed/sited "safe" from these hazards because it is proposing some form of Shoreline Protection Device which should not be allowable for new development. Language added in to correct this.

Policy C-PS-4e: For development proposed where potential inundation, flooding, and/or coastal erosion resulting from projected sea level rise cannot be completely avoided, sea level rise adaptation measures including requirements for future removal of development shall be evaluated and incorporated into the development siting, design, construction, ~~and~~ operation, and risk disclosures and deed restrictions shall be required. (NEW)

Commented [A80]: Should specify adaption measures be protective of coastal resources. In addition, it should prioritize adaptation measures that protect or enhance coastal resources when feasible (NBA), as well as avoiding shoreline protective devices

Policy C-PS-4f: New development shall be avoided on undeveloped land immediately adjacent to wetlands or other sensitive habitats that are at risk of inundation or flooding resulting from projected sea level rise so that these lands are available for wetland or other habitat restoration projects. (NEW)

Policy C-PS-4g: A buffer at least 100 feet wide from the upland edge of wetlands and riparian habitat shall be provided for new development. Buffers shall be measured from the extent of projected sea level rise in tidally influenced areas based on the best available science. In some cases, including for salt marsh wetlands, the required buffer should be greater than 100 feet. The California Department of Fish & Game, U.S. Fish & Wildlife Service, and U.S. Army Corps of Engineers shall be consulted to determine the buffer width. (NEW)

Policy C-PS-4h: As a condition of Coastal Development Permit approval for development subject to hazard risks in the Geologic Hazard Area Zone, Flood Hazard Area Zone, and areas subject to inundation from sea level rise, require the applicant to record a document approved by Permit Sonoma indemnifying the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures shall be avoided. Consider California Coastal Commission Draft Residential Adaptation Guidance, or successor document, in development of the condition. (NEW)

Policy C-PS-4i: The conditions of approval for any Coastal Development Permit on public or private property that is subject to hazards from projected sea level rise shall include the requirement that the owner shall record a deed with the following notice included: "The subject property is located in an area subject to inundation, flooding, or coastal erosion hazards as a result of projected sea level rise." (NEW)

6 WILDLAND FIRE HAZARDS POLICY

6.1 BACKGROUND

The combination of highly flammable fuel, long dry summers and steep slopes creates a significant natural hazard of large wildland fires in many areas of Sonoma County. Wildland fire results in death, injury, economic losses, and a large public investment in firefighting efforts. Woodlands and other natural vegetation are destroyed resulting in the loss of timber, wildlife habitat, scenic quality and recreation. Soil erosion, sedimentation of fisheries and reservoirs, and downstream flooding can also result.

Most damage results from a few large fires in the dry weather months. There were 21 wildland fires of 100 acres or more in the County between 1989 and 2000.

Commented [A81]: Seems like an odd place for this policy. Instead consider adding a line in **Policy C-OSRC-5d(3)** on measuring buffers from extent of projected sea level rise.

Commented [A82]: Consider requiring limitation on development duration through conditions of approval as well for shoreline, blufftop, and bluff face development as follows:

Development Duration. Development shall be removed and the affected area restored to a natural condition if: (a) the County declares the development unsafe for occupancy and/or use regardless of whether a new shoreline protective device would make the development safe for occupancy or use; (b) other than legally established development that is as of the date of LUP certification already elevated above public trust lands on Bodega Bay, the development encroaches onto current or future public trust land and the State Lands Commission or other public trust land authority, denies a grant, lease, or other legal mechanism that would otherwise allow the development to remain in place and requires the removal of the development ; (c) access and utilities are no longer available to serve the development and cannot be restored; (d) the blufftop edge erodes to the minimum setback line established via Policy xxx; and/or (e) removal is required by subsequent adaptation planning. A deed restriction consistent with Policy xxx shall be recorded requiring the applicant to assume all hazard risks and bear all costs associated with removing development and restoring the site.

Commented [A83]: This also seems to overlap closely with Policy **Policy PS-2g**, the only difference being the addition of sea level rise here.

Commented [A84]: The actual language should be in the policy, not a recommendation to develop the condition

Commented [A85]: See previous comments on including assumption of risk, waiver of right to future protection, and removal in the future if certain conditions are met.

Commented [A86]: Other Initiative C-PS-4u: "Disclose in real estate transactions whether properties are subject to inundation, flooding, and/or coastal erosion hazards as a result of projected future sea level rise" seems to have been removed. Please explain why.

Fire hazard severity has been mapped by the CAL FIRE. Areas on the County coast with a high or very high fire risk are shown on **Figures C-PS-6a-c** and include Timber Cove and Sea Ranch. The highest fire hazard in Sonoma County is found in mountainous areas with dry summers, plenty of fuel, and steep slopes.

Residences have increased the number of fires in rural areas. Ninety-seven percent of the wildland fires over 50 acres in Sonoma County since 1989 were caused by human activities or facilities. Residences in rural areas cause fire suppression agencies to devote limited resources to structural protection while the wildfire spreads.

The probability of large damaging fires in developed areas is affected by weather conditions and the spread of fires in surrounding wildland areas. The type of construction, preventive measures, and the extent of fire suppression services are the chief factors which determine how far these fires spread.

Hazards and Risk Assessment

Fire hazards shown on Figures C-PS-6a-c are only a general picture of the actual hazard because of the size of the areas and differences in vegetation and slope. The maps show the fire hazards only in unincorporated areas which are classified as wildlands and are therefore within the State Responsibility Area served by CAL FIRE.

Land Use Planning

In order to reduce the risks of property damage and human injury from wildland fires in rural areas, the types and intensities of land uses should be limited. Rural development should be most restricted where natural fire hazards are high, fire protection is limited, and road access prevents timely response by firefighting personnel and rapid evacuation by residents. Wildland fire hazards may be reduced by mitigation measures including removing vegetation and installing dependable water systems, but cannot be eliminated entirely.

The Sea Ranch Fuels Management

A landscape and fire management plan for The Sea Ranch was implemented in the 1990s to balance fire safety with the basic concept of preserving the natural landscape. In 2002 The Sea Ranch Association (TSRA) introduced a more aggressive Fuels Management Program to reduce fuel loads throughout The Sea Ranch. The Sea Ranch Association has continued to implement and expand the program. It incorporates the Sonoma County Fire Safe Standards (see Regulatory Environment below) and includes the following objectives and actions: create roadside fuel breaks to allow for safe evacuation and emergency access; reduce fuels on hillsides below homes to reduce fire intensity; enlarge the Highway 1 fuel break and reduce fuels on both sides of the highway; introduce sheep and goat grazing in the meadows on both sides of Highway 1; enhance riparian vegetation and remove conifers in drainages; and control new vegetation growth. TSRA also addresses fire safety around individual structures through its Defensible Space Fuel Management Resolution which requires the owners of developed property to maintain the fuel breaks around structures mandated by CAL FIRE; and its Design Manual Rules, which outline the permit process, procedure, and standards for fuels management on private lots and neighboring property.

Fire Safety Standards

Fire hazard regulations are intended to minimize on-site property damage and personal injury, avoid damage to adjacent properties, and reduce the cost of fire suppression services. Increasing built-in fire protection in those areas where new construction is allowed is the most cost effective way of achieving these objectives. All development must have adequate water available for fire suppression, whether from a hydrant and community system or from an on-site storage tank.

Where development is permitted near wildlands and natural vegetation, the fire hazard must be further mitigated by other measures. The locations of subdivision lots and building envelopes can maximize access by emergency vehicles and minimize construction in steep or wooded areas. Fire retardant roof materials are now required in high fire hazard areas. Preventing the spread of wildland fires to and from structures also requires use of fire retardant materials and/or removal of surrounding vegetation and clearing of fuel breaks.

Differences in local, state, and federal fire safety standards and requirements and in staffing and training among local fire districts prompted the formation of the Sonoma County Department of Fire Services in 1985, now the Sonoma County Fire and Emergency Services Department. Improvements in standards for road design, water supply, and sprinkler systems have increased the effectiveness of local fire protection services. In February 2003 the County Board of Supervisors approved Ordinance Nos. 5402 and 5373 that amended the County Fire Code to require fire sprinklers for both residential and commercial development with some exceptions. In recent years, fire services have reorganized and consolidated in order to minimize administrative costs and to promote more efficient and consistent service response.

CalFire enforces requirements for firefighting and prevention, works with property owners on controlled burns, and advises rural residents on fire prevention methods. CalFire is currently preparing minimum fire safety standards for wildland areas. See “Regulatory Setting” below for more information about CalFire responsibilities and activities.

Another important component of fire safety is an improved system of street addresses throughout the county. Fire response time, particularly in rural areas, is occasionally affected by the ability of the responder to locate the affected address. Improved visibility and standardizing street addresses can result in reduced emergency response time.

Public Education

Increased public awareness of fire hazards and fire safe practices is an effective way to avoid or reduce future fire damages and loss of life. Emergency service providers typically provide educational programs that focus on fire prevention. In addition to continuing to promote these ongoing programs, fire prevention information can be provided directly to the general public and to prospective permit applicants for incorporation into the building design. Such a program can be further expanded to include fire hazard information by providing fire hazard warning signs along roadways in particularly vulnerable fire hazard areas.

6.2 REGULATORY ENVIRONMENT

The California Department of Forestry and Fire Protection (CAL FIRE) has lead responsibility for fighting wildland fires in designated State Responsibility Areas. The Sonoma County Fire and Emergency Services Department (County Fire) provides fire prevention, fire protection, rescue, emergency medical, code enforcement, and arson investigation services for the unincorporated areas of Sonoma County that are not included in an independent fire protection district. County Fire is responsible for enforcing the California Fire Code and other fire-related codes and ordinances. It enforces vegetation management, reviews building construction plans, and performs inspections of new construction for fire code compliance. In addition, three volunteer fire districts providing fire protection services to different portions of the Sonoma County Coastal Zone. See the Public Facilities and Services Element for a more detailed description of the fire protection services in the Coastal Zone.

The Sonoma County Fire Code is based on the National Fire Code, California Fire Code, Uniform Building Code, and California Subdivision and Development Code; constitutes the local adoption of the California Building Code; and is in Chapter 13 of the Sonoma County Code. It sets forth the requirements of the Sonoma County Fire Safety Ordinance, referred to as the Fire Safe Standards. The County Fire Code was adopted to establish minimum fire safe standards for development within the unincorporated area of the county. The County Fire Code requirements ensure that all new development within the unincorporated area of the county will provide a basic level of fire protection around itself making it easier and safer for fire fighters to fight wildland and structure fires.

The Fire Safety Standards include but are not limited to requirements for emergency access, road naming and addressing, minimum emergency water supply and sprinklers to ensure a supply of water to fight or defend property from a fire, fuel modification and defensible space to reduce the possibility and intensity of a wildfire, and other fire protection measures. Due to the severe fire risk in many areas of the County, the County's Fire Safe Standards which outline development standards for emergency access, water supply, and vegetation management are more stringent than those required by the California Fire Code.

GOAL C-PS-5: Prevent unnecessary exposure of people and property to risks of injury or damage from wildland and structural fires.

Objective C-PS-5.1: Work with other fire agencies to improve fire safety standards, carry-out fire prevention and protection programs, and educate the public about fire hazards and fire prevention.

Objective C-PS-5.2: Regulate new development to reduce the risks of human injury and property damage from known fire hazards to an acceptable level.

The following policies, in addition to those in the Land Use and Public Facilities and Services Elements, shall be used to achieve these objectives:

Policy C-PS-5a: Encourage continued operation of California Department of Forestry and Fire Protection programs for fuel breaks, brush management, controlled burns revegetation,

Commented [A87]: See previous comments re: "Acceptable levels"

Commented [A88]: Recommend including the following policy language to clarify standards for removal of vegetation in ESHA and ESHA buffers for new development and existing development:

Standards for Development Subject to Fire Hazards. In addition to other requirements that may apply (e.g., for shoreline, blufftop, or bluff face development, and/or development subject to geologic hazards), the following standards apply to development subject to fire hazards:

1. **New Development and Fire Safety.** New development shall meet all applicable fire safety standards and shall be sited and designed to minimize required initial and future fuel modification and brush clearance in general, to the maximum feasible extent, and to avoid such activities within ESHA and ESHA buffers on site and on neighboring property, including parkland. All such requirements shall be applied as conditions of approval applicable for the life of the development.

Existing Development and Fire Safety. Removal of major vegetation adjacent to existing development for fire safety purposes shall only be allowed upon a finding that fuel modification and brush clearance techniques are required in accordance with applicable fire safety regulations and are being carried out in a manner which reduces coastal resource impacts to the maximum feasible extent. In addition to the foregoing requirements, removal of ESHA, or removal of materials in an ESHA buffer, shall only be allowed for fire safety purposes: if it does not conflict with prior conditions of approval; if there are no other feasible alternatives for achieving compliance with required fire safety regulations; and if all ESHA and related impacts are mitigated in a manner that leads to no net loss of ESHA resource value.

and fire roads; however, brush clearing and controlled burns shall not take place in designated Environmentally Sensitive Habitat Areas (ESHAs) or other sensitive habitats. (EXISTING LCP REVISED)

Policy C-PS-5b: Controlled burns shall be allowed on agricultural land with a permit from the local fire agency and in consultation with the local Air Quality Management District and California Department of Forestry and Fire Protection. (EXISTING LCP)

Policy C-PS-5c: Automatic fire sprinkler systems or other on-site fire detection and suppression systems shall be required in all new residential and commercial structures, with exceptions for detached utility buildings, garages, and agricultural-exempt buildings. (GP2020)

Policy C-PS-5d: The severity of natural fire hazards, potential damage from wildland and structural fires, adequacy of fire protection services, and mitigation measures consistent with the Public Safety Element shall be considered in the review of proposed development projects. (GP2020)

Policy C-PS-5e: Fire management plans shall be required for subdivisions and new or expanded recreational facilities in non-urban areas, including development of California Department of Parks and Recreation and Sonoma County Regional Parks holdings. Such plans shall include, but not be limited to, adequate water storage, adequate ingress and egress for emergency vehicles and occupant evacuation, and building siting to minimize fire hazards. (EXISTING LCP REVISED)

Policy C-PS-5f: Encourage and promote fire safe practices and the distribution of fire safe educational materials to the general public, permit applicants, and local planning agencies. (GP2020)

Policy C-PS-5g: Provide fire hazard information signs in Areas of Very High or High Potential for Large Wildland Fires in a manner that is consistent with the Local Coastal Plan and does not degrade Scenic Highway Corridors or scenic views. (GP2020)

Policy C-PS-5h: Encourage private individuals and communities on the Sonoma coast to construct small-scale water storage facilities for back-up use in the case of fire and for back-up non-potable water demand. (EXISTING LCP REVISED)

Commented [A89]: This seems more appropriate to building code standards and requirements rather than as LUP policy.

7 HAZARDOUS MATERIALS

7.1 BACKGROUND

Many substances can be hazardous to human health and the environment, which includes air, soil, water, plants, and animals. The California Health & Safety Code defines a hazardous material as "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and the environment if released into the

workplace or the environment." Common hazardous materials include oils, fuels, paints and varnishes, antifreeze, cleaning products, solvents, pesticides (includes herbicides, insecticides, fungicides, and rodenticides), and the associated hazardous waste. The increased use of hazardous materials has increased the potential hazards from hazardous materials and actual human injury and environmental damage, especially when they are used and disposed of near surface water. Public concerns have led to tighter controls on the production, transport, storage, sale, and use of hazardous materials, particularly on the handling and disposal of concentrated residues and wastes produced by power plants and other industrial operations.

Hazardous materials are found at many locations in Sonoma County. The electrical generating plants in The Geysers geothermal area use and produce hazardous materials hauled on winding mountain roads. Spills and releases of such materials have occurred. Petroleum fuels get into groundwater and surface water, particularly from underground storage tanks at gasoline stations and marinas. Preventing hazardous materials in the County's solid waste landfills and transfer stations and industrial operations is important because these materials could affect water quality. Boat use, repair, and maintenance activities at Bodega Bay, Spud Point Marina, and Porto Bodega in the Coastal Zone involve the storage, handling, use, and disposal of hazardous materials such as oils and fuels, paints and varnishes, solvents, and cleaning agents that may drain to surface water.

Pesticides are another hazardous material commonly used in Sonoma County by agricultural operations as well as residential, commercial, and recreational land uses. While state law preempts local regulation of pesticides, the County does have the authority to establish use restrictions applicable to its own operations. By doing so, the County can set an example that will encourage others to reduce reliance on pesticides.

Concerns about Outer Continental Shelf (OCS) oil and gas development led to the approval of Ordinance 3592R in the late 1980s, a Countywide ballot initiative that requires voter approval of any proposed Local Coastal Plan Amendment to allow onshore facilities that would support OCS oil and gas development (see Outer Continental Shelf Development Policy in the Land Use Element). The issue of potential oil or other hazardous material spills from onshore support facilities would be addressed in the required environmental documents on the proposed projects.

The management of hazardous materials is included in this Public Safety Element because it has become a major public safety issue requiring attention significant personnel and financial resources and attention by local agencies. Different local, state, and federal agencies have different responsibilities in regulating hazardous materials, discussed under "Regulatory Setting" below.

7.2 REGULATORY SETTING

Public concerns over the possible adverse effects of hazardous materials on human health and the environment have led to tighter regulatory controls on the production, transport, storage, sale, handling, and use of hazardous materials.

Federal Hazardous Materials and Waste Programs

The primary federal laws regulating hazardous materials, administered by the United States Environmental Protection Agency (U.S. EPA), are the Resource Conservation and Recovery Act of

1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CERCLA, often referred to as the Superfund, was enacted to provide broad federal authority to clean up releases or threatened releases of hazardous substances at abandoned hazardous waste sites in the U.S. The hazardous materials waste program under RCRA establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from cradle to grave. In any given State, U.S. EPA or the State hazardous waste regulatory agency enforces hazardous waste laws. The U.S. EPA encourages States to assume primary responsibility for implementing a hazardous materials and waste program through State adoption, authorization, and implementation of the regulations.

State of California Hazardous Materials and Waste Programs

The State of California has assumed the primary responsibility for implementing the federal hazardous materials and waste program. California legislation in 1993 (Senate Bill 1082) established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The Unified Program consolidates, coordinates, and makes consistent the California Environmental Protection Agency (Cal EPA) environmental programs which include:

- (1) Hazardous materials inventories and business plans
- (2) Permitting for generators of hazardous waste and operators of on-site hazardous waste treatment
- (3) Aboveground storage tanks
- (4) Underground storage tanks
- (5) Spill or accidental release prevention, control, and response
- (6) Fire code management plans

Under the Unified Program, Cal EPA certifies local agencies to implement the six state environmental programs listed above within their jurisdictions. The appointed local lead agencies are referred to as Certified Unified Program Agencies (CUPAs).

California Coastal Act

Section 30232 of the California Coastal Act requires that measures to protect against hazardous materials spills, and facilities and procedures for containment and cleanup of hazardous substances spills, be incorporated into proposed projects meeting the definition of development and which involve handling or transporting hazardous substances.

Commented [A90]: Use full text of coastal act policies instead of paraphrasing

Section 30232 Oil and hazardous substance spills
“Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.”

Sonoma County Hazardous Materials and Waste Lead Agencies and CUPAs

Hazardous Materials. The California Department of Toxics Substances Control (DTSC) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the regulation of hazardous materials and waste in California. The DTSC has authorized the Sonoma County Fire and Emergency Services Department as the lead agency and CUPA to enforce federal, state, and local laws pertaining to hazardous materials and hazardous waste management.

The Fire and Emergency Services Department enforces Chapter 29 of the Sonoma County Code regarding hazardous materials management, and for preparing a comprehensive hazardous materials and hazardous waste management plan. Chapter 29 regulates the storage, handling, and management of hazardous materials, whether in waste or non-waste form, unless specifically preempted by state or federal law. The Fire and Emergency Services Department is also responsible for emergency response to hazardous materials incidents throughout most of the County in coordination with local fire and police personnel, and enforces portions of the California Fire Code which address hazardous materials, including routine inspections.

Underground Storage Tanks. The State Water Resources Control Board (SWRCB) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to leaking Underground Storage Tanks containing hazardous substances. The SWRCB has authorized the Sonoma County Department of Health Services as the lead agency and CUPA to enforce federal, state, and local laws pertaining to leaking underground storage tanks in the County.

Pesticides. The California Department of Pesticide Regulation (DPR) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the proper and safe use of pesticides in California. DPR's enforcement of pesticide use in the field is largely carried out in California's 58 counties by County Agricultural Commissioner Offices and their staffs. The DPR has authorized the Sonoma County Office of the Agricultural Commissioner as the lead agency and CUPA to enforce federal, state, and local laws pertaining to the use, storage, and sales of pesticides in the County.

Oil Spills. The Oil Pollution Act of 1990 (OPA) improved the nation's ability to prevent and respond to oil spills by establishing provisions that expand the federal government's ability, and provide the money and resources necessary, to respond to oil spills. Under the OPA, the U.S. Coast Guard and U.S. EPA are the lead responsible agencies for preventing, preparing for, and responding to oil spills that occur in and around coastal waters and inland waters of the United States, respectively.

The Office of Spill Prevention and Response (OSPR), within the California Department of Fish and Wildlife, serves the responsibilities as public trustee and custodian for the protection, management, and restoration of the fish, wildlife, and plants across the State. As such, it is one of only a few agencies in the United States that both maintains major pollution response authority and public trustee authority for wildlife and habitat. In 2014, Governor Jerry Brown expanded the capabilities of the OSPR to include all state surface waters at risk of oil spills from any source, which more effectively captured possible spills from pipelines, production facilities, and railroad oil shipments (California features more than 7,000 rail crossings over water bodies).

Transport of Hazardous Waste. The California Department of Toxic Substances Control (DTSC) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the transport of hazardous waste in California. The DTSC has authorized the California Highway Patrol and Office of the State Fire Marshal to enforce some of the federal, state, and local laws pertaining to the transport of hazardous waste.

To operate in California, hazardous waste transporters must be registered with the DTSC. Unless specifically exempted, hazardous waste transporters must comply with the regulations of the U.S. Department of Transportation, DTSC, California Highway Patrol, and Office of the State Fire Marshal.

GOAL C-PS-6: Prevent unnecessary exposure of people and property to risks of injury or property damage from hazardous materials.

Objective C-PS-6.1: Regulate the handling, storage, use, and disposal of hazardous materials in order to reduce the risks of injury or property damage from hazardous materials.

The following policies, in addition to others in this Public Safety Element and those in the Land Use and Public Facilities and Services and Water Resources Elements, shall be used to achieve these objectives:

Policy C-PS-6a: Siting of hazardous waste repositories, incinerators, facilities that use a substantial quantity of hazardous materials, or other similar facilities intended primarily for hazardous waste disposal shall be avoided in any area subject to inundation, flooding, coastal erosion hazards resulting from projected sea level rise and other coastal hazards, and in areas subject to heightened ground shaking during an earthquake event (Modified Mercalli Index (MMI) Ground shaking Intensity Level higher than Strong (VII) as identified on Figures C-PS-1a-c or within one quarter mile of schools. Siting shall be avoided in any area designated for urban residential or rural residential use; on agricultural lands; or near waterways, bays, or the ocean. (GP2020)

Policy C-PS-6b: A use permit shall be required for any commercial or industrial use involving hazardous materials in threshold planning quantities as determined by Federal and State laws. A hazardous materials management plan shall be required as a condition of approval for such permits. (GP2020)

8 IMPLEMENTATION PROGRAMS

8.1 PUBLIC SAFETY IMPLEMENTATION PROGRAMS

Program C-PS-1: Develop a comprehensive adaptation plan and incentives for planned retreat or relocation from hazard areas;

- (1) Establish mandatory rolling setbacks for future development or significant redevelopment in areas that are likely to be affected by the impacts from sea level rise within the anticipated lifetime of the structures.
- (2) Identify funding or other incentives for purchase or relocation of existing structures out of vulnerable areas or areas exposed to significant hazards risks.
- (3) Limit rebuilding of structures in vulnerable areas that have been damaged by storms or the impacts from sea level rise, including increased rates of erosion. (NEW)

Program C-PS-2: Where geologic hazards threaten multiple properties in the same vicinity and all would benefit from a unified, coordinated response to minimize risks, consider the

Commented [A91]: Some redundancies with C-PS-10.

Commented [A92]: "Implementation programs" should be placed into the relevant hazards sections (e.g. C-PS-1 re managed retreat and rolling setbacks should be in Geologic Hazards instead of in a separate section).

Commented [A93]: Note that this can be partially achieved with the recommended addition of the waiver of rights to armoring and removal conditions policy.

formation of a Geologic Hazard Abatement District (GHAD) as a means to reduce geotechnical problems associated with development in geologically active areas. A GHAD is an independent public entity (public agency) which oversees the prevention, mitigation, and abatement of geologic hazards. Funding of the GHAD is through supplemental property tax assessments. (NEW)

Program C-PS-3: Develop a Strategic Plan for and incorporate into existing plans, damage assessment and recovery of essential service buildings and facilities consistent with Policy PS-1n of the General Plan 2020. (GP2020)

Commented [A94]: Cross-referencing other documents that could change is problematic.

Program C-PS-4: Consider amending or adopting a new hazard combining zone to address impacts related to development and redevelopment in hazard areas and on coastal bluffs in order to protect such development from the effects of coastal bluff erosion. (EXISTING LCP REVISED)

Program C-PS-5: Where additional data and information is necessary to adequately assess the on-site and off-site flood and inundation hazards from a proposed development, to develop mitigation measures, or to determine compliance of an existing or proposed development with the Coastal Zoning Ordinance, a supplemental site-specific flood and inundation hazards analysis shall be required. The site-specific analysis may include but is not limited to:

- (1) Topographic mapping.
- (2) Analysis of the influence of sea level rise on flood elevations and flood and inundation hazards and zones.
- (3) Delineation of flood and inundation hazard zones.
- (4) Calculation of expected flood elevations.
- (5) Calculation of expected flood velocity.
- (6) Analysis of the impacts on on-site and off-site flooding, drainage, and stormwater runoff.
- (7) Using construction details and specifications, analysis of compliance with the Coastal Zoning Ordinance.
- (8) Using cost and appraisal data, analysis of when reconstruction, rehabilitation, additions, or other improvements to structures would constitute a substantial improvement under the Sonoma County Code.
- (9) Development of mitigation measures to reduce or eliminate the potential for human injury and property loss from flood and inundation hazards, particularly in areas subject to repetitive property loss. (NEW)

Program C-PS-6: Establish a new Flood Hazard Area Combining Zone to include regulations for the permissible types of uses, intensities, and development standards in the following flood and inundation hazard areas:

- (1) 10-Year Base Flood Zones
- (2) 100-Year Base Flood Zones
- (3) Areas at Risk from Sea Level Rise by 2100 – Flooding
- (4) Areas at Risk from Sea Level Rise by 2100 – Landward Limit of Erosion High Hazard Zone
- (5) Areas at Risk from Tsunami of Up to 25 Feet

Commented [A95]: Note that most of the policies discuss a 100 year lifetime of safety which would be beyond 2100.

As a condition of coastal permit approval for development in the Flood Hazard Area Combining Zone, require the applicant to record a document exempting the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit during the structure's economic life are prohibited. (NEW)

Program C-PS-7: Consider developing regulations that require the use of low impact development techniques to reduce stormwater runoff from new development. (GP2020)

Program C-PS-8: Consider preparing a study of the impacts of sea level rise and other coastal hazards on public facilities and infrastructure, private development, communities, and natural ecosystems based on the best available scientific estimates and current state guidance as part of future updates to the Hazard Mitigation Plan. (NEW)

Commented [A96]: This has been done – consider reframing as keeping SLR studies up to date.

Program C-PS-9: Study, monitor, develop, and implement a plan to mitigate the impacts to groundwater from saltwater intrusion resulting from sea level rise and storm events based on the best available science. (NEW)

Program C-PS-10: Consider preparation of a Sea Level Rise Vulnerability and Risk Assessment, and Adaption Plan for the Sonoma County coast based on guidance from the California Coastal Commission's Sea-Level Rise Policy Guidance (2018), the California Ocean Protection Council's Sea-Level Rise Guidance (2018), and other applicable publications. Focus on those SubAreas of the Sonoma County coast at the highest risk of inundation, flooding, or coastal erosion resulting from sea level rise, which include The Highcliffs/Muniz/Jenner (SubArea 6), Pacific View/Willow Creek (SubArea 8), Duncans Mills (SubArea 7), and State Beach/Bodega Bay (SubArea 9).

Commented [A97]: Some redundancies with C-PS-1.

Commented [A98]: Avoid policies that start with "Consider" - make these more actionable.

Preparation of the Sea Level Rise and Coastal Hazards Adaptation Plan shall involve collaboration with pertinent County of Sonoma departments and agencies, independent utility districts, and responsible federal and state agencies; and participation of the public.

The Sea Level Rise and Coastal Hazards Adaptation Plan shall focus on public and quasi-public facilities and infrastructure and include the following components:

- (1) Discussion of the following planning tools to help communities adapt to sea level rise and other coastal hazards: public purchase of private property for public uses, sale or transfer of public land to accommodate relocated roads and infrastructure, transfer of development rights, parcel reconfiguration, and zoning and land use designation amendments.
- (2) Requirements and standards for siting, design, and construction of new public facilities and infrastructure and private structures in areas subject to sea level rise and other coastal hazards as mapped in the Vulnerability Assessment.
- (3) Requirements and standards for maintenance and removal of abandoned structures.
- (4) Cost/benefit analyses of: a) adaptation measures versus no adaptation measures and b) carrying-out adaptation measures pre-inundation versus post-inundation (i.e., emergency conditions).
- (5) Plan for full disclosure of potential hazards to owners of property in areas subject to sea level rise and other coastal hazards as mapped in the Vulnerability Assessment.
- (6) Identify options and mechanisms to minimize or avoid County obligations to compensate for private property loss or damage resulting from sea level rise and other coastal hazards.

The County will continue to work with the [Coastal Commission](#), Ocean Protection Council, and other agencies and organizations to develop possible adaptation strategies for particular areas of the Sonoma County coast. (NEW)

Program C-PS-11: Identify existing green infrastructure (coastal land, habitats, vegetation, natural features, and ecological processes) which may be used to increase coastal resiliency to climate change, sea-level rise, and flood and geologic hazards (erosion); and strategies for adapting to climate change and sea-level rise through maintenance or enhancement of this green infrastructure. These adaptation strategies may include, but are not limited to, planned retreat, land preservation, habitat conservation, and habitat restoration. (NEW)

Program C-PS-12: Periodically review and update the extent of projected sea level rise in the Local Coastal Plan based on best available science. (NEW)

Commented [A99]: Please indicate what "periodically" means or is tied to.

Commented [A100]: See previous comments on the best way to define best available science re: SLR

Program C-PS-13: Consider adopting an ordinance which prioritizes relocation and allows reconstruction of a structure damaged or lost from inundation or flooding related to sea level rise where certain criteria can be met; an evaluation of the feasibility of relocation to a location where hazard risks are minimized is provided; where relocation is not feasible, a reconstructed structure must be raised a minimum number of feet above the anticipated base flood elevation considering projected future sea level rise during the economic life of the structure based on the most up-to-date science; and where such an adaptation approach is considered feasible and practical and is expected to minimize the risk of inundation and flooding of the structure to an acceptable level. (NEW)

Program C-PS-14: Continue to adopt revisions to the California Fire and Building Codes and other standards which address fire safety as they are approved by inspection organizations and the State of California. Review, revise, and/or adopt existing or new local Codes, ordinances, and Fire Safe Standards to reflect contemporary fire safe practices. (GP2020)

Program C-PS-15: Proposed development projects shall be referred to the Sonoma County Fire and Emergency Services Department and responsible fire protection agencies for their review and comment. (GP2020)

Program C-PS-16: Improve and standardize the County's street addressing system in order to reduce emergency service response times. (GP2020)

8.2 OTHER INITIATIVES

Other Initiative C-PS-1: Coordinate flood hazard analysis and floodplain management activities with the United States Army Corps of Engineers (USACOE), FEMA, State Office of Emergency Services (State OES), Sonoma County Fire and Emergency Services Department, Sonoma County Water Agency (SCWA), and other responsible agencies. (GP2020)

Other Initiative C-PS-2: Encourage FEMA to update its flood insurance studies and Flood Insurance Rate Maps (Flood Rate Maps) to show the following information. This mapping would allow regulations and mitigation efforts to focus on the areas at the highest risk of flood hazards, and allow flood insurance premiums to be more reflective of the actual flood hazard risks on specific properties. Provide FEMA data generated from detailed parcel-specific and site-specific analyses of flood elevations and flood hazard zones when available to assist in updating flood insurance studies and Flood Insurance Rate Maps.

- (1) Flood elevations and flood hazard zones which reflect inundation hazards unique to the Coastal Zone such as sea level rise and greater ocean surges and larger waves during storms based on the most up-to-date data and science, including data developed under the California Coastal Analysis and Mapping Project and Open Pacific Coast Study (OPC Study); and
- (2) Detailed mapping of the 100-year floodplain to delineate the 10-year, 25-year, and 50-year floodplains. (NEW)

Other Initiative C-PS-3: Coordinate with state and local emergency services to educate the public about the areas subject to inundation from a tsunami, where to go in the event of an earthquake, and evacuation routes in the event of a tsunami by distributing educational materials to parcel owners within the tsunami run-up zone and by erecting signage specified by the Sonoma County Operational Area Tsunami Response Plan. (NEW)

Other Initiative C-PS-4: Encourage the California Department of Parks and Recreation, Sonoma County Regional Parks Department, Sonoma County Agricultural Preservation and Open Space District, Sonoma Land Trust, and similar organizations to purchase natural lands adjacent to wetlands or other sensitive natural habitats which are at risk of inundation or flooding from projected sea level rise, based on the best available science, for use as wildlife habitat. (NEW)

Other Initiative C-PS-5: Work with stakeholders to develop a disclosure for real estate transactions involving properties subject to inundation, flooding, and/or coastal erosion hazards as a result of projected future sea level rise. Prior to the lease, sale, or other conveyance of any portion of public property, or issuance of a Coastal Development Permit for the use or development of public lands subject to projected sea level rise, provide a Real Estate Disclosure Statement which states that the property is located in an area that is subject to inundation, flooding, or coastal erosion hazards as a result of projected sea level rise. (NEW)

Other Initiative C-PS-6: Work with the California Department of Forestry and Fire Protection to identify areas of high fire fuel loads and take advantage of opportunities to reduce those fuel loads, particularly in Areas with Very High or High Potential for Large Wildland Fires and in High Fire Hazard Severity Zones. (GP2020)

Other Initiative C-PS-7: The Sonoma County Department of Emergency Services shall offer assistance to local agencies in adopting and enforcing fire safety regulations and shall work with local agencies to develop proposed improvements to related County Codes and standards. (GP2020)

Other Initiative C-PS-8: Encourage the California Department of Parks and Recreation, and the Sonoma County Regional Parks Department to continue efforts to educate the public about fire hazards and fire prevention. (EXISTING LCP REVISED)

Other Initiatives C-PS-9: Continue to educate the general public about and promote the reduction in use of hazardous materials, proper disposal of hazardous materials, and the use of safe alternatives to hazardous materials in County operations and private businesses. (GP2020 REVISED)

Other Initiatives C-PS-10: Work with applicable regulatory agencies to regulate the use, disposal, and transport of hazardous materials consistent with adopted County policies. (GP2020 REVISED)

9 REFERENCES

- California Coastal Commission. 2018. Sea Level Rise Policy Guidance. Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits. Adopted August 2015. Science Update adopted November 2018.
- California Natural Resources Agency. 2018. Safeguarding California Plan: 2018 Update. A report to the Governor of the State of California in response to Executive Order S-13-2008.200 p.244.
- California Ocean Protection Council. 2018. State of California Sea-Level Rise Guidance: 2018 Update.
- Hartge, E., L. Wedding, J. Reiblich, W. McEnery. April 21, 2016. *Initial General Vulnerability Assessment: Sonoma County*. Center for Ocean Solutions. Prepared for County of Sonoma Permit & Resource Management Department under Ocean Protection Council (OPC) Sea Level Rise Adaptation Planning Grant CO300500. 12 pp.
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- National Academies of Science. 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. Prepared by Committee on Sea Level Rise in California, Oregon, and Washington; Board on Earth Sciences and Resources; Ocean Studies Board, Division on Earth and Life Studies; and National Research Council. The National Academies Press, Washington, D.C. 250 p.
- National Research Council. 2010. Adapting to the impacts of climate change. The National Academies Press, Washington, D.C. 244 p.
- Russell, N. and G. Griggs. 2012. Adapting to sea level rise: a guide for California's coastal communities. University of California, Santa Cruz. Prepared for the California Energy Commission, Public Interest Environmental Research Program. 49 p.

Figure C-PS-1a: Seismic Geologic Hazards – SubAreas 1 - 3
(11x17)

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Figure C-PS-1b: Seismic Geologic Hazards – SubAreas 4 - 6
(11x17)

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Figure C-PS-1c Seismic Geologic Hazards – SubAreas 7 - 10
(11x17)

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Figure C-PS-2a Slope Instability Hazards – SubAreas 1 - 3
(11x17)

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Figure C-PS-2b Slope Instability Hazards – SubAreas 4 - 6
(11x17)

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Figure C-PS-2c Slope Instability Hazards – SubAreas 7 - 10
(11x17)

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Figure C-PS-3a Tsunami and Sea Level Rise Hazards – SubArea I – The Sea Ranch North
(11x17)

Commented [A101]: Ensure that all SLR maps specifically include the amount of SLR shown, not years

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Figure C-PS-3b Tsunami and Sea Level Rise Hazards – SubArea 2 – The Sea Ranch South
(11x17)

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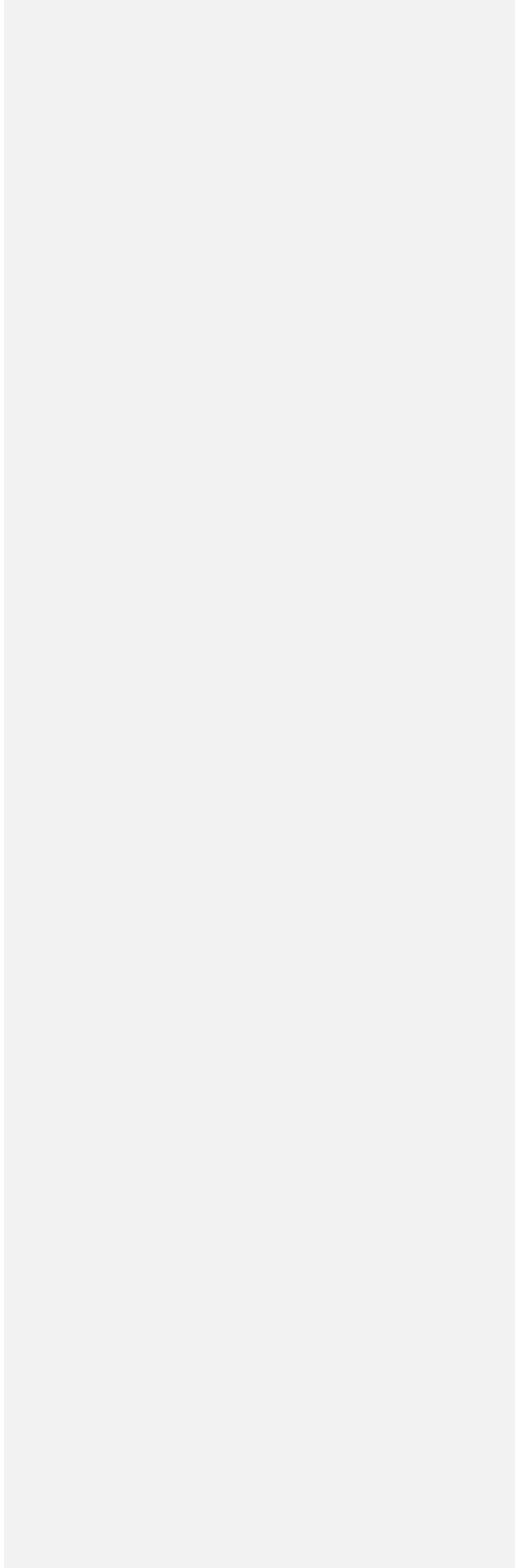


Figure C-PS-3c Tsunami and Sea Level Rise Hazards – SubArea 3 – Stewarts Point/Horseshoe Cove
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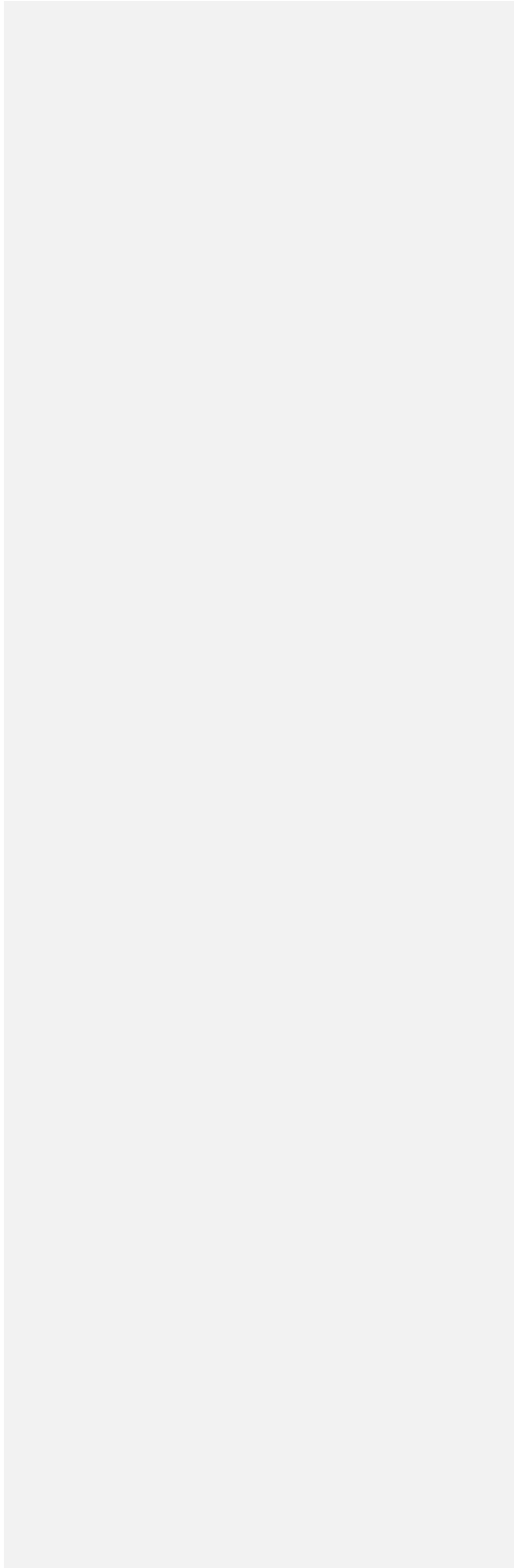


Figure C-PS-3d Tsunami and Sea Level Rise Hazards – SubArea 4 – Salt Point
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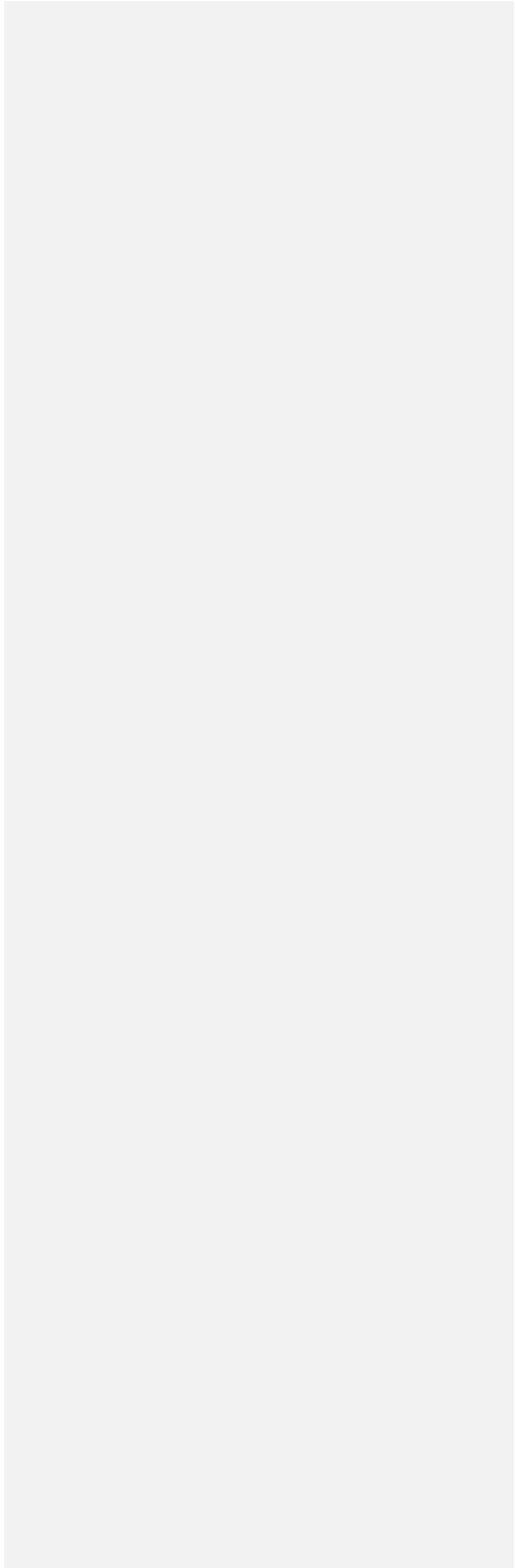


Figure C-PS-3e Tsunami and Sea Level Rise Hazards – SubArea 5 – Timber Cove/Fort Ross
(11x17)

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Figure C-PS-3f-i Tsunami and Sea Level Rise Hazards – SubArea 6 – Highcliffs/Muniz-Jenner
(11x17)

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Figure C-PS-3f-ii Tsunami and Sea Level Rise Hazards – SubArea 6 – Highcliffs/Muniz-Jenner
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Figure C-PS-3g-i Tsunami and Sea Level Rise Hazards – SubArea 7 – Duncans Mills
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Figure C-PS-3g-ii Tsunami and Sea Level Rise Hazards – SubArea 7 – Duncans Mills
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Figure C-PS-3h-i Tsunami and Sea Level Rise Hazards – SubArea 8 – Pacific View/Willow Creek
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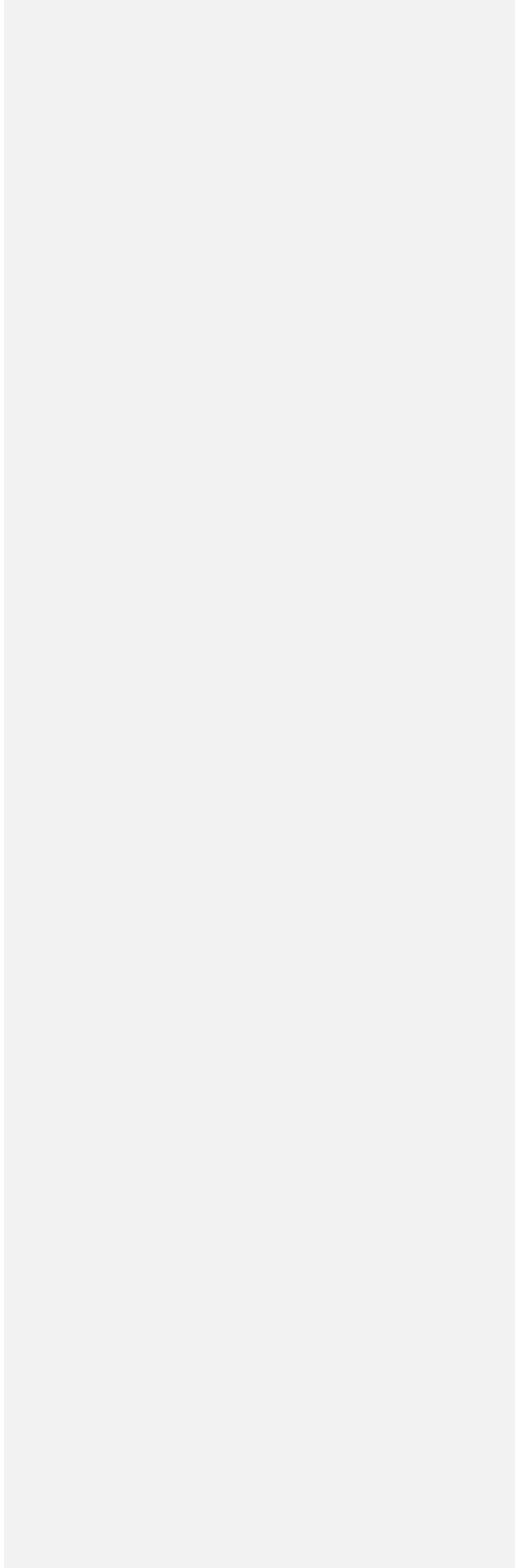


Figure C-PS-3h-ii Tsunami and Sea Level Rise Hazards – SubArea 8 – Pacific View/Willow Creek
(11x17)

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Figure C-PS-3i-i Tsunami and Sea Level Rise Hazards – SubArea 9 – State Beach/Bodega Bay
(11x17)

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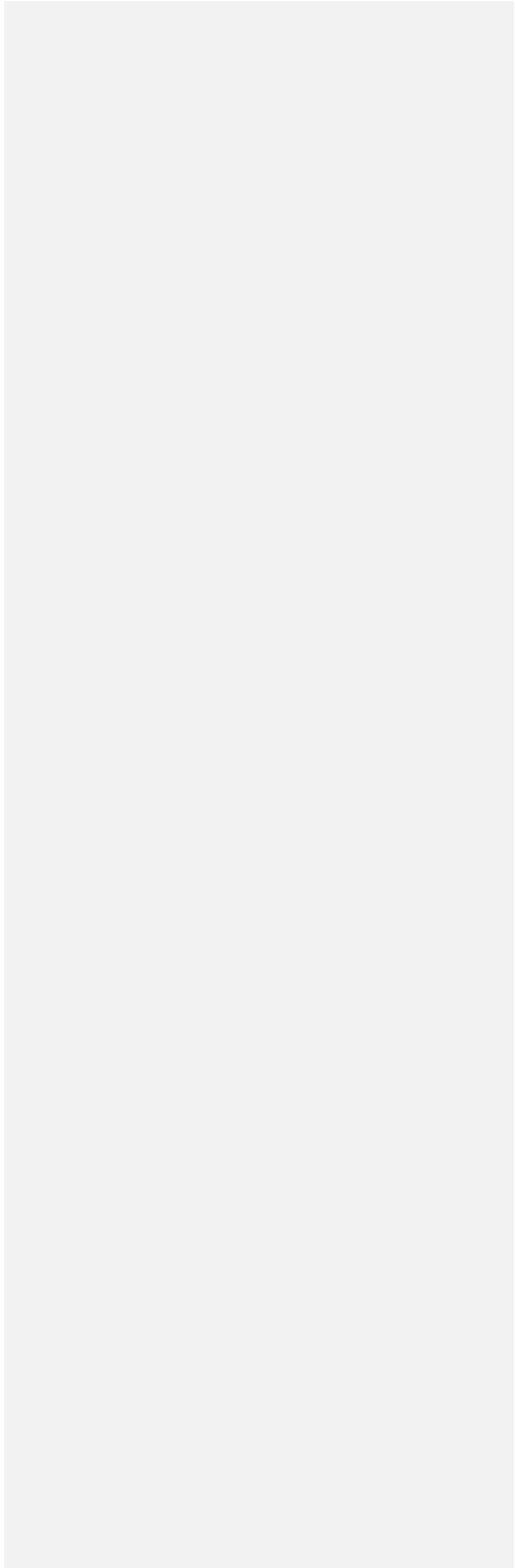


Figure C-PS-3i-ii Tsunami and Sea Level Rise Hazards – SubArea 9 – State Beach/Bodega Bay
(11x17)

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Figure C-PS-3j-i Tsunami and Sea Level Rise Hazards – SubArea 9 – Bodega Bay Vicinity
(11x17)

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Figure C-PS-3j-ii Tsunami and Sea Level Rise Hazards – SubArea 9 – Bodega Bay Vicinity
(11x17)

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Figure C-PS-3k Tsunami and Sea Level Rise Hazards – SubArea 10 – Valley Ford
(11x17)

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Figure C-PS-4a Coastal Exposure Threat – SubAreas 1 - 3
(11x17)

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Figure C-PS-4b Coastal Exposure Threat – SubAreas 4 - 6
(11x17)

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Figure C-PS-4c Coastal Exposure Threat – SubAreas 7 - 10
(11x17)

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Figure C-PS-5a Role of Natural Habitat in Reducing Exposure – SubAreas 1 - 3
(11x17)

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Figure C-PS-5b Role of Natural Habitat in Reducing Exposure – SubAreas 4 - 6
(11x17)

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Figure C-PS-5c Role of Natural Habitat in Reducing Exposure – SubAreas 7 - 10
(11x17)

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Figure C-PS-6a Wildland Fire Threat – SubAreas I - 3

(11x17)

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Figure C-PS-6b Wildland Fire Threat – SubAreas 4 - 6

(11x17)

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Figure C-PS-6c Wildland Fire Threat – SubAreas 7 - 10

(11x17)

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CALIFORNIA COASTAL COMMISSION

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October 27, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

**Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update:
Circulation and Transit Chapter**

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 8: Circulation and Transit.

The list below is intended as a complement to the in-line edits and comments provided for the Circulation and Transit element but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff:

1. **Sea Level Rise and Adaptation Planning.** Overall, this chapter should contain more discussion of associated sea-level rise (SLR) issues and adaptation planning, including with regards to the potential impacts of SLR-induced erosion and flooding on circulation and transit in the County, in particular the specific sections, as follows:
 - a. 1.1 "Purpose" should note the need to create resilient transportation infrastructure in the face of SLR;
 - b. "Roadway Safety, Maintenance, and Existing Conditions" (Page CT-3) should include a discussion of not just managed retreat, but also the potential for softer SLR adaptation such as living shorelines or roadway elevation;
 - c. "Transportation Improvements" (Page CT-4) should mention SLR adaptation; and
 - d. "Roadway Safety Improvements" (Page CT-15) should include policies on SLR adaptation.

2. **Highway Realignment.** Related to Sea Level Rise Adaptation, this chapter should include a policy and/or objective to identify sections of roadway that may be candidates for highway realignment given anticipated coastal erosion, similar to the Gleason’s Beach project.
3. **Clean Transportation Infrastructure.** There is a real need for clean transportation infrastructure that will support coastal access and transportation in Sonoma County given the greater distances traveled when compared to other counties and rural characters, however, the chapter does not reference this need to encourage clean transportation or non-GHG emissions vehicles. We recommend incorporating this into Objective C-CT-1.3 as another way of minimizing future increases in vehicle miles traveled to reduce greenhouse gas emissions. For example, the State now has model policies to support the installation of EV charging and Santa Cruz County incorporated an example into their [LCP](#) as well.
4. **Inclusion of Relevant Coastal Act Policies.** As stated in our review of previous chapters, there should be a discussion at the beginning of this element that provides an overview of the relevant Coastal Act Policies. Within the LUP policies, Coastal Act policies should be referenced when appropriate.
5. **Safety Improvements.** Several policies in the “Roadway Safety Improvements” section, including C-CT-4h, 4i, and 4p, mention “safety improvements” but do not define what these improvements might be. To ensure Coastal Act consistency with these improvements, this section should either contain a discussion defining what safety improvements are, or provide policy-specific guidelines on safety improvements such as in C-CT-4q. We would also recommend incorporating SLR adaptation as an element of these safety improvements.
6. **Caltrans Repair and Maintenance Guidelines.** To ensure the LCP aligns with Caltrans guidance on repair and maintenance, we would recommend incorporating the “Sonoma State Route 1 Repair Guidelines” as a policy or appendix in this LCP.
7. **Tools, Standards, and Guidelines.** Numerous tools, industry standards, and measures are referenced in this document, such as the “Traffic Demand Management” measures (Objective C-CT-2.4), Class II bikeway width, geometric, and maintenance standards, and “Vision Zero Principles” (Objective CT-3.4). Additional details on the source and content of these standards should be included in the LCP to allow readers to easily find the referenced information.

Again, we thank you for your efforts to date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Circulation and Transit Element: Table of Contents

Circulation and Transit Element.....	2
1 Introduction	2
1.1 Purpose.....	2
2 Background.....	2
3 Circulation and Transit System.....	2
3.1 Existing and Projected Transportation Conditions in 2020.....	2
State Highway 1.....	3
Active Transportation and Transit	4
California Coastal Trail	5
4 Circulation and Transit System.....	5
4.1 Goals, Objectives, and Policies General Transportation.....	5
4.2 Goals, Objectives, and Policies Public Transit and Automobile Trip Reduction.....	6
4.3 Goals, Objectives, and Policies Capacity And Safety	14
4.4 Goals, Objectives, and Policies Phasing and Funding of Improvements.....	17
5 Implementation Programs.....	18
5.1 Circulation and Transportation Implementation Programs	18
5.2 Other Initiatives	20

Circulation and Transit Element

1 INTRODUCTION

1.1 PURPOSE

The Circulation and Transit Element addresses the planned transportation routes and facilities along the coast, including goals, objectives, and policies affecting the mobility of future residents, businesses, and visitors. The 1976 California Coastal Act (Coastal Act) encourages-allows maintenance and improvement of transportation facilities that provide access to coastal resources and within the Coastal Zone, and requires that Highways 1 and 116 in the Coastal Zone continue to be maintained as scenic rural two-lane highways.

Commented [A1]: The purpose should also note the need to create a resilient transportation in the face of SLR (Erosion and flooding) and fire.

Commented [A2]: Numerous other Coastal Act policies influence transportation decisions and should be mentioned here including polices on hazards(30250) and visual resources(30251).

Commented [A3]: Please reference Section 30254 here.

2 BACKGROUND

The road network in the Coastal Zone is a critical component of coastal access, as well as providing essential transportation infrastructure necessary to supply goods, services, and emergency response for residents and businesses located along the Coastal Zone. Coastal roads also provide recreational and transportation opportunities for bicyclists and pedestrians, but use is limited by narrow roadways that lack adequate shoulders, sidewalks and bike lanes.

Numerous public access areas, large areas of protected open space, and attractive public beaches are distributed across over 55 miles of coastline with virtually no public transit available, making automobiles the primary means of transportation for visitors to the coast. This dependency on automobile transportation, combined with limited parking, results in congestion and lack of adequate parking, especially during weekends and holidays.

Safety of all road users, especially bicyclists and pedestrians, remains a challenge in the Coastal Zone due to limited rights of way and the need to balance impacts to coastal resources with road improvements and trail development necessary to improve safety.

3 CIRCULATION AND TRANSIT SYSTEM

3.1 EXISTING AND PROJECTED TRANSPORTATION CONDITIONS IN 2020

The Sonoma Coast/Gualala Basin region has a sparse roadway network due to its remote location and very low population density. The major roadways, all two-lane rural roads, are State Highway 1, State Highway 116, Bodega Highway, Stewarts Point-Skaggs Springs Road, Coleman Valley Road,

Annapolis Road, and Valley Ford-Freestone Road. With the exception of State Highway 1, these roadways run east-west (**Figures C-CT-1a-c**). Other roads serve only as minor access routes, but could be important as alternate routes in emergencies. Daily buses connect the small communities along State Highway 1 to Sebastopol, Santa Rosa, and Mendocino County. With limited public transportation and lack of adequate bicycle and pedestrian facilities, private automobiles are the most common transportation mode to the Coastal Zone.

Full time residential population of the Coastal Zone is low, and the majority of trips are generated by visitors to the coast, particularly on weekends.

State Highway 1

Traffic and Circulation Conditions

Traffic volume on State Highway 1 has increased since the first transportation study was conducted for the 1981 Local Coastal Plan. Most traffic is related to tourism, with trips originating outside of the Coastal Zone. The steady increase in tourism has resulted a corresponding increase in traffic and congestion along Highway 1, and is especially acute on the weekends in the region south of Jenner and adjacent to public beaches, trailheads, and campgrounds. This traffic often results in delayed emergency response and residents experiencing difficulty accessing their homes and local businesses.

Table C-CT-1. Traffic Volume Trends Highway 1 2007-2017

<i>Intersection</i>	<i>Peak Hour Increase</i>	<i>Peak Month Daily Average</i>	<i>Annual Average Daily Traffic</i>
Valley Ford Road	150.0%	34.7%	31.0%
Valley Ford/Freestone Road	96.1%	31.8%	28.9%
Bodega Highway	77.8%	136.8%	116.7%
Bodega Eastshore Road	16.9%	-1.8%	-9.6%
JCT. RTE. 116 East	29.0%	7.7%	11.1%
Jenner	51.5%	7.7%	11.1%
Fort Ross, Fort Ross Road	73.9%	6.7%	8.1%
Stewarts Point/Skaggs Springs Road	42.9%	-2.3%	0.0%

The large increase in peak hour volumes at the southernmost intersections shows a growing trend for commuters living in the Sebastopol area to use Highway 1 as an alternative route to job centers in Petaluma and Marin County. The increase in traffic volume between Bodega Highway and Jenner appears directly related to tourism, as commute traffic heading south will generally use Valley Ford / Freestone Road.

Roadway Safety, Maintenance, and Existing Conditions

Highway 1 provides the only north-south transportation corridor in the Coastal Zone, and is extremely vulnerable to erosion from storms, landslides, and sea level rise, as well as damage from wildfires. These hazards are increasing in frequency and severity due to climate change, and maintenance of Highway 1 must shift from armoring and reinforcement to a strategy of planned retreat that includes the entire road network in the Coastal Zone.

Roads in the Coastal Zone have narrow shoulders, inadequate sight lines, narrow travel lanes, and limited opportunity for safe passing, creating unsafe conditions for all road users, especially bicyclists

Commented [A4]: Please include content on the potential for softer solutions such as living shorelines and elevated roadways. These solutions may not be appropriate in much of Sonoma Coastlines, but would be worth to analyze where these solutions might be appropriate.

and pedestrians. Improving these conditions will require increasing the overall road prism. Unstable geologic conditions, Environmentally Sensitive Habitat Areas, and lack of undeveloped land adjacent to the right-of-way in developed areas create a situation where improvements are challenging. Road improvements should be limited to those needed to improve safety or provide improved facilities for people traveling by bicycle, on foot, or public transit rather than increasing capacity or reducing congestion.

Transportation Improvements

Providing turning lanes at intersections and parking areas is the most effective approach to improving safety along Highway 1 as well as potentially reducing traffic delays in Jenner, Bodega Bay, and at entrances to public beaches.

Other safety improvements proposed for Highway 1 are selective widening and road alignments; parking management, development and enforcement programs; and other types of road improvements such as roadway striping and marking, bicycle lanes and pedestrian ways. Improvements to Highway 1 such as construction of bicycle paths or widening of shoulders will be necessary to construct portions of the Sonoma County segment of the California Coastal Trail (see discussion below).

Minor road improvements in the community of Bodega Bay will not relieve traffic congestion, and establishing a bypass route has proven infeasible. While capacity along this section of Highway 1 will remain inadequate, there are opportunities to improve pedestrian safety and reduce dependency on automobiles for local trips by adding pedestrian walkways, restricting turning movements across traffic, and reducing vehicle speeds.

Active Transportation and Transit

The Complete Streets Act of 2008, which mandates that all cities and counties modify the circulation element of their general plans to provide for a transportation network that equitably meets the mobility needs of all, including pedestrians, bicyclists, children, students, persons with disabilities, users of public transportation, together with motorists and movers of commercial goods.

A comprehensive, safe, and convenient bicycle and pedestrian transportation network is a critical component of an overall strategy to reduce automobile dependency for residents and visitors, as well helping to meet greenhouse gas (GHG) emissions reduction standards established under the California Global Warming Solutions Act of 2006 (AB 32).

Improving bicyclist and pedestrian safety along the Coastal Zone is critical to enabling people to choose to walk or bike rather than drive. Highway 1 is narrow, winding, and dangerous for bicyclists, and lacks sidewalks in developed areas. The lack of shoulders and sidewalks is especially acute in Bodega Bay, forcing residents to drive even when running short distance local errands.

Class I bicycle paths or multi-use trails along Highway 1 would alleviate these issues therefore, separated trails are the preference when feasible and in balance with consideration of other coastal act resources but is difficult to identify routes that will provide equivalent connectivity without adverse impacts on coastal resources. Reconfiguration of the existing roadway to create larger shoulders should be considered as an option for making roads safer for all users. However, there

Commented [A5]: This should reference SLR improvements as well.

Commented [A6]: There is no reference in this chapter the need to encourage clean transportation and non GHG emission vehicles. Sonoma coast will continue to rely on automobiles and trucking for transportation, even with the improvements in pedestrian and bicycle access. Improvements could be a policy supporting the installation of EV charging stations which Santa Cruz recently incorporated into their [LCP](#)

Commented [A7]: This should mention SLR adaption as well.

Commented [A8]: Is it necessary here to call this out in the LCP given it seems to hinder the development of separated bike trails? Seems like we will be dealing with those issues regardless, and putting this language in here just makes it harder to add in separated bike/ped routes. Edits included as a recommendation.

[should be special consideration when reconfiguring shoulders so that shoulders do not impinge on habitat and necessary buffers, as well as continues protection of visual resources.](#)

Public transit is provided by Mendocino Transit Authority and Sonoma County Transit. Mendocino Transit Authority operates bus route 95, which is the only year-round transit service in the Coastal Zone. Service is limited to a single daily trip running southbound to Santa Rosa in the morning and returning in the afternoon. Service frequency and routes must be improved in order to provide a viable alternative to driving for residents of the Coastal Zone.

Sonoma County Transit routes 29A and 29B provide seasonal service on weekends to the Coastal Zone from June through early September. These routes provide several trips per day, with Route 29A connecting Bodega Bay to Sebastopol and Santa Rosa. Route 29B connects Bodega Bay to Jenner, Duncan's Mills, Monte Rio, and Guerneville.

California Coastal Trail

The 1975 California Coastal Plan mandated the California Coastal Conservancy (Coastal Conservancy) to develop and implement the California Coastal Trail, a continuous public trail or system of trails along the length of the coastline, with the exact alignment and location to be determined locally through community input. In some locations, the Sonoma County segment of the California Coastal Trail could also function as a local transportation facility for bicyclists and pedestrians. Details on the California Coastal Trail can be found in the Public Access Element.

4 CIRCULATION AND TRANSIT SYSTEM

4.1 GOALS, OBJECTIVES, AND POLICIES | GENERAL TRANSPORTATION

GOAL C-CT-1: Provide a well-integrated and sustainable circulation and transit network that provides coastal access, supports community-centered growth, and equitably meets the mobility needs of all. (GP2020 REVISED)

Objective C-CT-1.2: Reduce the need for automobile use by a combination of infrastructure improvements and incentives that favor alternate modes over automobile use.

Objective C-CT-1.3: Reduce greenhouse gas emissions by [minimizing future increase in reducing](#) vehicle miles travelled, [especially gasoline powered vehicles with GHG emissions.](#)

The following policies shall be used to achieve these objectives:

Policy C-CT-1a: Transportation improvements shall [first avoid, then lessen, and finally minimize adverse impacts](#) to biotic resource and Environmentally Sensitive Habitat Areas, and disruption of neighborhoods and communities to the maximum extent feasible. [Adverse impacts will be mitigated using appropriate mitigation ratios](#)(GP2020 REVISED)

Commented [A9]: The Coastal Act has policies that also should be considered here, such as impact on coastal views, public access, etc.

Policy C-CT-1b: Require new development to reduce vehicle miles traveled to the maximum extent feasible. (GP2020 REVISED)

Policy C-CT-1c: Reduce vehicle miles travelled by locating new housing near areas where jobs are concentrated and encourage development of communication infrastructure necessary to make telecommuting feasible in the Coastal Zone. (WAS OBJECTIVE C-CT-1.5)

Policy C-CT-1d: Circulation and transit system improvements shall be done in a manner that is consistent with protection of Coastal resources, preserving community and rural character, and minimizing vehicle miles traveled. (POLICY OPTION. WAS OBJECTIVE C-CT-1.4)

4.2 GOALS, OBJECTIVES, AND POLICIES | PUBLIC TRANSIT AND AUTOMOBILE TRIP REDUCTION

GOAL C-CT-2: Provide opportunities for people to use public transit, walking, and bicycling as an alternative to travel by automobile. (GP2020 REVISED)

Objective C-CT-2.1: Improve bus transit services to and within the Coastal Zone.

Objective C-CT-2.2: Increase the share of home based work or commute trips taken by public transit.

Objective C-CT-2.3: Design, implement, and maintain a transit system that serves seniors, persons with disabilities, youth and persons with limited incomes so that they may participate in a full range of activities.

Objective C-CT-2.4: Use Traffic Demand Management measures to reduce peak period congestion.

Objective C-CT-2.5: Develop bicycle and pedestrian facilities in order to promote bicycling and walking a practical alternative to automobile use through implementation of the Sonoma County Bicycle and Pedestrian Plan. (GP2020 REVISED)

The following policies shall be used to achieve these objectives:

Public Transportation Access and Facilities

Policy C-CT-2a: Provide efficient, affordable public transportation service in and to the Coastal Zone and require expansion of alternative modes of transportation where opportunities are identified. (NEW – CONSIDER DELETING)

Policy C-CT-2b: Provide convenient, accessible transit facilities for youth, seniors, and persons with disabilities, and paratransit services as required by ADA. Promote efficiency and cost effectiveness in paratransit service such as use of joint maintenance facilities. (NEW)

Policy C-CT-2c: Wherever feasible, require development projects to implement measures that increase the average occupancy of vehicles, such as: (GP2020 REVISED)

Commented [A10]: Please include information as to what standard this is referring to

Commented [A11]: Is this referencing Appendix H? If so this should be cited here. If it's a new document, if it contains relevant information to this chapter it should be included in the appendix.

- (1) Vanpools or carpools, ridesharing programs for employees, preferential parking, parking subsidies for rideshare vehicles, and transportation coordinator positions, and
- (2) Preferential parking space and fees for rideshare vehicles, flexibility in parking requirements. (GP2020)

Policy C-CT-2d: Encourage measures that divert automobile commute trips to transit whenever possible, including:

- (1) Establishment of [site design](#) standards ~~for site design~~ to allow for transit access, bus turnouts and passenger shelters, pedestrian access ways between transit stops and buildings, secure bicycle lockers and shower facilities, complementary street layouts and geometrics that accommodate buses and bicycles, and transportation kiosks for tenants of business;
- (2) Programs that promote transit use to existing job centers and schools, such as transit information centers, on-site sale of transit tickets and passes, shuttles to transit stations or stops, transit ticket subsidies for employees and students, private or subscription transit service, parking fees and transportation allowances. (GP2020)

Policy C-CT-2e: Provide incentive programs at businesses and visitor destinations that reduce automobile trips [and/or greenhouse gas emissions](#), such as secure bike parking, shower facilities, telecommuting, flexible schedules, [electric charging stations](#) etc. Programs may apply to existing employers as well as to new development. Establish measurable goals for these programs, collect data, and provide periodic reports on program effectiveness. (GP2020 REVISED)

Bicycle and Pedestrian Facilities

Bicycle transportation facilities (bikeways) are classified as Class I, II, III, and IV as defined below.

Class I Bikeways are also known as multi-use paths. Class I bikeways provide bicycle travel on an all-weather surface within a right-of-way that is for exclusive use by pedestrians, bicyclists and other non-motorized modes. Class I bikeway surface must be compliant with provisions of the Americans with Disabilities Act (ADA). These bikeways are intended to provide superior safety, connectivity, and recreational opportunities as compared to facilities that share right-of-way with automobiles.

Class II Bike Lanes are on-street bike lanes and provide a striped and stenciled lane for one-way travel on either side of a street or highway. Unlike Class III bikeways (below), Class II bikeways have [specific width, geometric, and maintenance standards](#).

Class III Bike Routes identify roads that are preferred routes for people riding bicycles, and have signs reminding motorists of the California Vehicle Code safe passing regulations and to be aware of bicyclists using the road. By law, bicycles are allowed on all roadways in California except on freeways when a suitable alternate route exists

Commented [A12]: Policy edited to match **Objective C-CT-1.3**

Commented [A13]: Add a footnote here that references industry standards and where they come from.

Class IV Protected Bike Lane is physically separated from the vehicle travel lane by grade separation, flexible bollards or permanent barriers and provide enhanced safety and comfort for people riding bicycle on roadways.

GOAL C-CT-3: Establish a safe and convenient bicycle and pedestrian transportation network, well integrated with transit, to reduce greenhouse gas emissions, increase outdoor recreational opportunities, reduce dependency on automobiles, and improve public health. (GP2020)

Objective CT-3.1: Design, construct and maintain a comprehensive Bikeways Network that links communities, coastal access points, and other major activity centers including, but not limited to, schools, public facilities, commercial centers, recreational areas and employment centers. (GP2020)

Commented [A14]: We should strive for a regional vision for a bike network including bike transportation highways. Ultimately a map/figure of this vision would be ideal.

Objective CT-3.2: Provide safe, convenient routes for bicyclists and pedestrians with adequate end of trip facilities at workplaces. (GP2020 REVISED)

Objective CT-3.3: Provide incentives for business and public facilities to increase the use of walking and bicycling by employees for both commuting and daily operations. (GP2020)

Objective CT-3.4: Eliminate all traffic fatalities and severe injuries by incorporating Vision Zero principles into roadway design and related policies including data collection and traffic modeling. (GP2020 REVISED)

Commented [A15]: What are the vision zero principles that might be incorporated and how will they be implemented?

Objective CT-3.5: Provide a diverse range of recreational opportunities through a well-designed network of bikeways, multi-use trails, sidewalks, and related support facilities. (GP2020)

Objective CT-3.6: Eliminate potential obstacles to walking and cycling by providing continuous and well-connected pedestrian walkways and bicycle facilities, and safe road crossings, with a focus on short trips within developed coastal communities. (GP2020 REVISED)

The following policies shall be used to achieve these objectives:

Commented [A16]: These policies should include:
1. Allowing bike turnouts/climbing lanes on steep climbs and blind curves, where appropriate.
2. The possible installation of bike safety signs (e.g. "Pass 3ft min" etc.) in limited numbers when balanced with visual impacts.
3. Bike pull-overs/rest stop improvements. This may be a general point that bike and ped path improvements should include rest areas especially in highly scenic locations in parks, above beaches, or scenic pull-outs with sufficient room.

Policy CT-3a: Use the adopted Sonoma County Bicycle and Pedestrian Plan as the detailed planning document for existing and proposed bikeways and pedestrian facilities in the Coastal Zone. (GP2020)

Policy CT-3b: Use the policies of the Bicycle and Pedestrian Plan whenever reviewing development projects to insure that projects are consistent with the Bicycle and Pedestrian Plan and incorporate necessary bicycle and pedestrian improvements identified in the Bicycle and Pedestrian Plan as a condition of project approval. (GP2020)

Commented [A17]: At the moment the Bicycle and Pedestrian plan is just a list of projects and does not include any policies or design guidelines. This should also be cited as Appendix K

Policy CT-3c: BPAC shall be responsible for advising the Coastal Commission, Board of Supervisors, Planning Commission, Board of Zoning Adjustments, Project Review Advisory Committee, and County staff on the ongoing planning and coordination of the County's bicycle and pedestrian transportation network. (GP2020)

Policy CT-3d: The Regional Parks Department shall be responsible for establishing and maintaining Class I bikeways, and the Department of Transportation and Public Works (TPW) shall be responsible for establishing and maintaining Class II and III bikeways and pedestrian facilities along County rights-of-way in unincorporated areas. (GP2020)

Policy CT-3e: Regional Parks and TPW shall be responsible for periodically collecting bicycle and pedestrian counts at locations shown in the Bicycle and Pedestrian Plan consistent with Metropolitan Transportation Commission standards. The BPAC, in consultation with Regional Parks and TPW, shall review this data to determine effectiveness in applying such data for County improvement projects and update the count locations as needed. (GP2020 REVISED)

Policy CT-3f: Revise County Traffic Guidelines to require that traffic studies identify impacts to existing and planned bicycle and pedestrian facilities. Consider development of bicycle and pedestrian facilities as mitigation measures for projects generating additional vehicle miles travelled and greenhouse gas emission impacts. (GP2020 REVISED)

Policy CT-3g: Develop an objective standard for identifying safety and connectivity of the bicycle and pedestrian transportation network within and connecting to the Coastal Zone that takes into consideration travel distance, bicycle and pedestrian transportation needs, and existing network deficiencies and gaps. (GP2020 REVISED)

Policy CT-3h: Use the performance standard developed by **Policy CT-3g** to evaluate impacts to bicycle and pedestrian facilities that may result from discretionary projects, and identify corrections and/or improvements necessary to mitigate those impacts. (GP2020)

Policy CT-3i: Use the following standards for selection of new routes: (GP2020 REVISED)

- (1) Route shall be located along the most direct line of travel that is convenient and safe for bicyclists and pedestrians.
- (2) Routes and bikeway design shall be ADA compliant [when feasible](#).
- (3) Avoid routes that cross driveways serving commercial and visitor serving uses. Where no alternative route can be identified, consider reconfiguration of on-street parking in these areas to improve safety.
- (4) Pavement surface quality - Bikeways shall be free of surface defects that compromise bicycle safety. Utility covers and drains shall align with the bikeway surface and be located outside of the bikeway when feasible. Drainage grates shall be aligned perpendicular to the direction of travel in order to avoid catching bicycle wheels.
- (5) Where bus stops are located along bikeways, design bus turnouts and the bike lane to conflicts between passengers, buses, and bicycles.

- (6) Identification of a reliable source of funds to support maintenance and operation shall be considered before identifying a new Class I Bikeway alignment.
- (7) Bikeway design and route selection shall maximize public benefit and safety per dollar invested.

Policy CT-3j: The most recent version of Chapter 1000 of the Caltrans Highway Design Manual, AASHTO's "Guide for the Development of Bicycle Facilities", and the "California Manual on Uniform Traffic Control Devices" (MUTCD) shall be used as general design guidelines for design, construction and maintenance of bikeways. (GP2020)

Policy CT-3k: In addition to the general standards found in **Policy CT-3j** above, use standards found in the most recently adopted Bicycle and Pedestrian Plan for selection, design, construction, and maintenance of Class I, II, III, and IV bikeways. (GP2020)

Policy CT-3l: Where an existing or proposed bicycle route is located on a bridge or over a culvert, bicycle and pedestrian facilities shall be included as part of replacement or major maintenance/reconstruction. "Major reconstruction" is defined as any activity requiring a Coastal Development Permit, Coastal Development Waiver, and/or Streambed Alteration Agreement. Improvements are required regardless of priority of the remainder of the bicycle route served by the bridge or culvert. (GP2020 REVISED)

Commented [A18]: Please insure that this policy aligns with CalTrans Sonoma State Route 1 Repair Guidelines.

Commented [A19]: Is "major reconstruction" supposed to be the same as "major maintenance" here? Reconstruction and maintenance have different connotations and should be defined here.

Policy CT-3m: Where several bikeways of different classes follow a similar route or provide similar connectivity, the BPAC shall be consulted when construction of one facility appears to reduce the need or function of other facilities. (GP2020)

Policy CT-3n: Use the following criteria to determine consistency of public and private projects with the Bicycle and Pedestrian Plan: (GP2020 REVISED)

- (1) Class I bikeways are a component of coastal access, and development of lands traversed or adjoined by an existing or future Class I bikeway shall not preclude establishment of the bikeway, nor conflict with use and operation of the bikeway or adversely affect long term maintenance and safety of the facility.
- (2) Construction, widening, or maintenance of roads with designated bikeways shall be consistent with design and maintenance standards for the appropriate class of bikeway as specified by the Bicycle and Pedestrian Plan.

Policy CT-3o: Design, construct, and improve bikeways consistent with the Bicycle and Pedestrian Plan Project Priority List. This list shall establish the priority, class, and location of Sonoma County bikeways projects. (GP2020)

Policy CT-3p: The following projects shall be referred to the BPAC for a determination of consistency with the Bicycle and Pedestrian Plan and to evaluate potential for creating hazards or barriers to walking or bicycling: (GP2020)

- (1) Road widening projects.
- (2) Road capacity improvement projects.
- (3) Resurfacing, restoration, and/or rehabilitation of roads with existing or proposed Class II, III, or Class IV bikeways.
- (4) Resurfacing, restoration, and/or rehabilitation of roads that include the installation of rumble strips, AC berms or similar barriers, and/or roadway dots in the shoulder area.
- (5) Traffic calming improvements.
- (6) Discretionary projects adjacent to existing or proposed Class I bikeways and/or roads with existing or proposed Class II or Class III bikeways.
- (7) Discretionary projects anticipated to be conditioned with roadway improvements along existing or proposed Class I, II or III bikeways.

Policy CT-3q: Require that bikeway improvements be included as part of all road maintenance or improvement projects along road segments with existing or proposed bikeways to the maximum extent feasible. (GP2020)

Policy CT-3r: Where nexus exists, require private or public development to plan, design, and construct bicycle and pedestrian facilities to integrate with the existing and planned bicycle and pedestrian network. (GP2020)

Policy CT-3s: Where discretionary projects are found to create additional demand for bicycle travel, require the project to directly provide or participate in the funding of bikeway improvements such as gap closures, shoulder widening, safety improvements and signage that will improve bicycle access to destinations located within 3 miles of the project site. (GP2020)

Policy CT-3t: Require mitigation either through in-lieu fees, or development of alternative facilities that have been recommended by the BPAC, when development projects or road improvements are anticipated to result in a loss of existing bicycle and pedestrian facilities or jeopardize development of future facilities identified in the Bicycle and Pedestrian. (GP2020)

Policy CT-3u: Develop a maintenance reporting system for bikeways with a central point of contact that can be used to report, track, and respond to routine bicycle and pedestrian maintenance issues in a timely manner. (GP2020)

Policy CT-3v: Require road construction projects to minimize their impacts on bicyclists and pedestrians through the proper placement of construction signs and equipment and by providing adequate, safe, well-marked detours. Where it is safe to do so, allow bicyclists and pedestrians to pass through construction areas in order to avoid detours. Where two-way bicycle and pedestrian travel can be safely accommodated in a one-way traffic control zone, adequate signage shall be placed to alert motorists of bicycles and pedestrians in the lane. (GP2020)

Policy CT-3w: Caltrans, Sonoma County Regional Parks, Sonoma County Transportation and Public Works shall coordinate efforts to close gaps in the bikeway network and ensure the system is constructed, and maintained. (GP2020 REVISED)

Policy CT-3x: Require dedication or purchase of right of way for Class I bikeways when a nexus can be established between the proposed development and Class I bikeway projects identified by the Sonoma County Bicycle and Pedestrian Plan. (GP2020 REVISED)

Policy CT-3y: Provide adequate bicycle parking as part of all new school, public transit stops, public facilities, and commercial, industrial, and retail development following standards established in adopted Bicycle and Pedestrian Plan. (GP2020)

Policy CT-3z: Require transit agencies to accommodate bicycles on buses. (GP2020 REVISED)

Policy CT-3aa: The BPAC shall review bicycle parking at transit facilities and accommodations to carry bicycle on-board buses every 2 years to assure that anticipated demand for parking and on-board accommodations can be met. (GP2020 REVISED)

Policy CT-3bb: Collect bicycle and pedestrian crash data in the Coastal Zone on an annual basis. The BPAC shall review this data and provide recommendations on infrastructure improvements or policies that will prevent future crashes. (GP2020 REVISED)

Policy CT-3cc: Give highest priority to constructing safety related pedestrian facilities in the vicinity of schools, public transit facilities, crossings in communities, and coastal access areas. (GP2020 REVISED)

Policy CT-3dd: Require that Highway 1 improvements in developed areas such as, but not limited to, Bodega Bay and Jenner include pedestrian-oriented street design features such as sidewalks and crosswalks. (GP2020 REVISED)

Policy CT-3ee: Require centrally located shared parking in local communities whenever feasible for commercial uses rather than requiring individual businesses to provide separate parking areas. (GP2020)

Policy CT-3ff: Where discretionary projects are found to create additional demand for pedestrian travel, require the project to directly provide or participate in the funding of pedestrian improvements such as sidewalks, gap closures, steps, safety improvements, and/or

trails that will improve pedestrian access to destinations located within 2 miles of the project site. (GP2020)

Policy CT-3gg: Provide high-visibility crosswalk marking at all pedestrian crossings. Wherever possible, install pedestrian signalization, refuge islands and signage warning vehicles to stop for pedestrians and watch for bicyclists. (GP2020)

Policy CT-3hh: Inventory safety needs/hazards along routes to and around schools in order to identify improvements necessary to improve safety and create a priority list of projects necessary to correct these hazards. (GP2020)

Policy CT-3ii: Encourage school districts to participate in providing safe bicycle and pedestrian connections that serve students from surrounding neighborhoods when constructing or improving schools. Encourage school districts to provide secure bicycle parking areas for students, faculty, and staff. Require private schools to provide continuous pedestrian pathways and bicycle facilities from adjacent residential communities to the school grounds. (GP2020)

Policy CT-3jj: Coordinate Bicycle Safety Education Programs at schools, with law enforcement agencies, school districts, advocacy groups, local bicycle shops, and other interested organizations. The program shall include traffic rules, bicycle handling skills, the importance of good helmets, lights and reflectors, bicycling clothing, and bicycle maintenance courses in cooperation with local bicycle shops and organizations. (GP2020)

Policy CT-3ll: Support constructive efforts from advocacy groups to address bicycle and pedestrian transportation issues. (GP2020)

Policy CT-3mm: Provide the option of flexible work schedules to County employees who live or work in the Coastal Zone in order to accommodate commuting by bicycle, walking, or transit. (GP2020 REVISED)

Policy CT-3nn: Develop a Guaranteed Ride Program for County workers and employees of other employers with participating programs who regularly bicycle, walk, vanpool, carpool, or use transit for their trip to work. The program would encourage use of alternative transportation modes by providing free transportation in the event of personal emergencies, illness, or unscheduled overtime. (GP2020)

~~**Policy CT-3oo:** Consider establishing greenhouse gas impact fees for new development. Use a portion of this fee to fund planning, design, and construction of bikeways and pedestrian facilities. (GP2020 APPLIES TO ENTIRE COUNTY)~~

~~**Policy CT-3pp:** Work with Federal, State, regional, and local agencies and any other available public or private funding sources to secure funding for bikeways and pedestrian facilities. (GP2020 NOT COASTAL SPECIFIC)~~

~~Policy CT-3qq: Encourage coordination with Caltrans to fund design, construction and maintenance of bikeways and pedestrian facilities. (GP2020 NOT COASTAL SPECIFIC)~~

Policy CT-3rr: Develop a long range strategy to provide long term funding necessary to maintain Class I bikeways and multi-use trails in the Coastal Zone. (GP2020 REVISED)

4.3 GOALS, OBJECTIVES, AND POLICIES | CAPACITY AND SAFETY

GOAL C-CT-4: Provide and maintain a highway system capacity that serves projected travel demand and creates a transportation network that equitably meets the mobility needs of all, including pedestrians, bicyclists, children, students, persons with disabilities, users of public transportation, together with motorists and movers of commercial goods. (GP2020 REVISED)

Objective C-CT-4.1: Establish road design and maintenance standards that protect Coastal resources while providing public access to the Sonoma Coast

Objective C-CT-4.2: Develop a Heritage Road Program for coastal roadways. This program will create special design guidelines to protect the unique character of these roads while maintaining safety. (GP2020 REVISED)

The following policies shall be used to achieve these objectives:

Transportation Design Guidelines

Policy C-CT-4c: Use the American Association of State Highway Transportation Officials (AASHTO) functional classification system and guidelines for geometric design for the highway network. (GP2020 OBJECTIVE BECAME POLICY)

Policy C-CT-4d: Road design and maintenance activities shall be consistent with the principals of the Complete Streets Act of 2008 and consider the mobility needs of all road users on an equitable and equal basis. (NEW)

Policy C-CT-4e: The following policies apply to Highway 1 and Highway 116 within the Coastal Zone:

- (1) Protection of Coastal resources shall have priority over strict adherence to Caltrans design standards. Require Caltrans to use Design Exceptions for Highways 1 and 116 when necessary to minimize impacts to Coastal resources, including preservation of community character.
- (2) Prohibit development of new driveways along Highway 1 and Highway 116 except where reasonable access cannot be provided by using existing driveways or local roads for access.

Commented [A20]: This program needs to be developed in consultation with the CCC and Caltrans as it could conflict with Coastal Act Policies and create a burden for Caltrans.

Commented [A21]: What are the design exemptions defined here?

(3) Set and enforce access standards for new driveways and other encroachments to the Arterial Road system. These standards may include functional layout, location, and spacing requirements to minimize side frictions.

(4) In agricultural areas, include measures such as road signs, wider shoulders, and turnouts or over/under passes to provide safer roads for the agricultural industry, residents, and visitors where compatible with the character of the area, ~~and does not impeding~~ public access, and does not impact other sensitive coastal resources. (GP2020 REVISED)

Policy C-CT-4g: Designate and design Local Roads as routes that are intended to provide access to property and to carry local traffic to Highway 1 and Highway 116. The following policies apply to Local Roads:

- (1) Design local roads for access by emergency and service vehicles.
- (2) Design roads to maximize safety of pedestrians and bicyclists.
- (3) Locate horizontal and vertical road alignments to correspond to natural topography, except where these alignments will have an adverse impact on environmentally sensitive habitat areas or create unsafe conditions for road users.
- (4) In agricultural areas, include measures such as road signs, wider shoulders, and turnouts or over/under passes to provide safer roads for the agricultural industry, residents, and visitors where compatible with the character of the area and with protecting visual resources and public access. (GP2020 REVISED)

Roadway Safety Improvements

Policy C-CT-4h: When a nexus is identified between a project and the need for safety improvements, require the safety improvements as a condition of approval. (GP2020 REVISED)

Policy C-CT-4i: Safety improvements shall be given funding priority over capacity improvements with safety improvements serving coastal access areas being the highest priority. (GP2020 REVISED)

Policy C-CT-4j: Provide intersection management improvements at intersections with high crash rates and/or long delays for turning movements. These may include installation of traffic signals, signal timing, re-striping, lengthening, turn lane additions, or other improvements, provided the improvements are consistent with the applicable road classifications and protection of coastal resources. (GP2020/EXISTING LCP)

Policy C-CT-4k: Construct improvements such as realignment, signalization, roundabouts, turn restrictions, one-way streets, and traffic calming at the following intersections to improve safety at the following intersections: (GP2020/EXISTING LCP REVISED)

Commented [A22]: This section should include SLR adaptation.

Commented [A23]: A general overview of the safety improvements referenced here would be helpful, especially since we are asking Caltrans to make design exemptions for safety improvements.

Commented [A24]: Please define what "safety improvements" means here.

- (1) Bay Flat Road/Bodega and Cypress Dunes Campgrounds (Sonoma Coast State Beach)
- (2) Bay Flat Road/Eastshore Road
- (3) State Highway 1/Eastside Road
- (4) State Highway 1/Taylor Street
- (5) State Highway 1/ Bay Hill Road (EXISTING LCP REVISED)

Policy C-CT-4l: Relocate Highway 1 along Gleason Beach (Postmile 15.0 - 15.8) inland sufficient distance to avoid hazards created by bluff retreat and sea level rise. (NEW)

Policy C-CT-4m: Construct the following sets of road improvements to increase the capacity and safety of State Highway 1 in Jenner:

- (1) *State Highway 1* – from western property line of assessor’s parcel number (APN) 099-150-013 (10990 State Highway 1) to 200 feet from intersection with Burke Avenue; and Burke Avenue - 200 feet: road realignment and widening, curbing, turn lane for parking and Burke Avenue, one-way parking circulation, and parking restrictions.
- (2) *State Highway 1* – about eastern bank of Jenner Creek to about opposite northern property line of APN 099-113-012 (10469 Riverside Drive); Riverside Drive - about 65 feet; and 65 Willig Drive - about 80 feet: road widening, turn lanes, and parking restrictions. (EXISTING LCP REVISED)
- (3) *Intersection of Highway 1 and 116*– Roundabout, minor realignment to provide more sight distance and/or signalization to improve safety. Consider minor realignment consistent with protection of Coastal resources. (NEW)

Policy C-CT-4n: Provide turn lanes at The Sea Ranch intersections listed below. An intersection improvement of lower priority could be constructed before an intersection improvement of higher priority if funding is available.

- (1) **Priority I**
 - The Stables and North Recreation Center entrance (already widened)
 - Annapolis Road
 - Longmeadow Road
 - Moonraker and Whalebone Reach
- (2) **Priority II**
 - Lodge Entrance
- (3) **Priority III**
 - Leeward Spur

Commented [A25]: This is already approved so the specific reference is not needed. Instead there should be a general call out to evaluate and identify sections of roadway (or just Highway 1) that should be candidates for highway realignment away from coastal erosion. Gleason is not the only stretch likely to be affected in however many years this LCP is the governing standard.

Deerfield Road
Breaker Reach
Vantage Road
Pine Meadow
Whitebluff Road
Headlands Reach
Navigators Reach
Lodge Entrance and Halcyon (EXISTING LCP REVISED)

Policy C-CT-4p: Encourage safety improvements on State Highway 116, Bodega Highway and Freestone-Valley Ford Road to improve safety on east-west roads that connect State Highway 1. (EXISTING LCP)

Policy C-CT-4q: Implement the following safety improvements along State Route 1:

- (1) Reduce vehicle speeds where Highway 1 passes through developed areas to the maximum extent permitted by State law. (EXISTING LCP REVISED)
- (2) Restrict turning movements at parking areas where necessary to promote safe entry and exit.
- (3) Construct turning lanes and entry improvements at parking areas listed in The Public Access Plan. (EXISTING LCP REVISED)

Policy C-CT-4r: Consider traffic calming improvements on Highway 1 in the unincorporated communities of Bodega Bay, Jenner, and Timber Cove. (GP2020 REVISED)

Policy C-CT-4s: Roads may not be expanded beyond two lanes, except for lanes associated with safety improvements such as turn pockets, center turn lanes, emergency vehicle access, and similar road features. (NEW)

4.4 GOALS, OBJECTIVES, AND POLICIES | PHASING AND FUNDING OF IMPROVEMENTS

GOAL C-CT-5: Integrate the funding and development of planned circulation and transit system improvements with countywide transportation planning efforts and land use planning and development approval. (GP2020)

Objective C-CT-5.1: Equitably allocate the costs of circulation and transit system improvements among the responsible public and private entities responsible for creating the need for system improvements.

Objective C-CT-5.2: Work with the SCTA and Federal and State governments to obtain the necessary funding for the planned circulation and transit system.

The following policies shall be used to achieve these objectives:

Policy C-CT-5b: Require that new development provide project area improvements necessary to accommodate vehicle, pedestrian, bicycle, and transit movement in the vicinity of the project, including safety improvements, traffic calming, right-of-way acquisition, access to the applicable roadway, and other mitigation measures necessary to accommodate the development without inhibiting public access. (GP2020 REVISED)

Policy C-CT-5c: Carry out on an as needed basis projects that enhance traffic safety but do not significantly increase capacity, including but not limited to traffic control devices (signals and signs), curvature reduction, turn lanes at intersections, shoulder improvements, reconstruction, and resurfacing. [Approval of these projects should be balanced with impacts on coastal resources and be consistent with Coastal Act Polices and this LCP including but not limited to habitat, habitat buffers, as well as view protections.](#) (GP2020)

Policy C-CT-5d: Continue to implement traffic mitigation fees. (GP2020)

5 IMPLEMENTATION PROGRAMS

5.1 CIRCULATION AND TRANSPORTATION IMPLEMENTATION PROGRAMS

Program C-CT-1: Monitor the effectiveness of the planned circulation and transit system on an ongoing basis. Cooperate with the Sonoma County Transportation Authority to establish and maintain an ongoing Countywide traffic modeling program that:

- (1) Maintains a coordinated land use database on an annual basis for cumulative impact analysis of the circulation and transit system;
- (2) Assesses vehicle miles travelled generated and develop strategies for reducing automobile dependency for both tourists and local residents. The model must be capable of considering regional travel demand to accurately forecast trip generation for tourism and visitor serving uses in the Coastal Zone.
- (3) Establishes the nexus for allocating fair share funding of transportation improvements within the Coastal Zone;
- (4) Identifies the impacts of projects and appropriate mitigation measures on the circulation and transit system;
- (5) Assists in the planning of detailed operation improvements in individual communities, and

Commented [A26]: Similar to comments on **Policy C-CT-4I**. This chapter should consider monitoring for coastal erosion and studying HWY1 for sections that might need possible realignment? Consider adding a policy that monitors for sections of HWY1 that might need realignment in the future, similar to the project at Gleasons.

(6) Is capable of modeling weekend and off-peak travel demand in order to plan for tourism and special event traffic.

(GP2020 REVISED)

Program C-CT-2: Monitor traffic volumes on County-maintained road segments, and work with Caltrans on similar State Highway 1 segments that are projected to experience high traffic volumes during peak weekend periods, particularly in the summer and fall months. Use this information to develop strategies for transportation alternatives, such as shuttle bus routes, to reduce coastal visitor's dependency on automobiles while maintaining convenient and equitable access to the coast for all visitors. (GP2020 REVISED)

Program C-CT-3: Work with Sonoma County Transit to develop bus service between Bodega Bay and Jenner with regular connections to inland communities and job centers that will provide an alternative to commuting by automobile. Coordinate routes, schedules, and fares among transit providers to make transfers convenient between the various transit systems during commute periods. (GP2020 REVISED)

Program C-CT-4: In partnership with Caltrans, Coastal Commission, and Sonoma County Transportation and Public Works develop a planned retreat strategy for transportation infrastructure that will be threatened by the effects of climate change, such as sea level rise, bluff retreat, and increased wildfire frequency and severity. This strategy shall also consider how short term maintenance projects, such as retaining walls and drainage can be designed to reduce impacts to coastal resources if these features are intended to be removed or abandoned in place as road segments are abandoned. (NEW)

Program C-CT-5: Classify, designate, and design roadways according to the functional classifications of the AASHTO manual. Use flexibility of the AASHTO manual to reduce adverse impacts on coastal resources and provide maximum safety and convenience for bicyclists and pedestrians. (GP2020 REVISED)

Program C-CT-6: Develop a Heritage Road Program to preserve public roads with unique scenic, historic, recreational, cultural, archeological and/or natural qualities that may be compromised if the road is fully improved to meet current road standards. As part of this program, adopt special design standards to balance necessary improvements, safety, and maintenance with the unique character of these roads while maintaining coastal access for all road users as well as a sea level rise resilient highway. (GP2020 REVISED)

Program C-CT-7: Based upon an established nexus, assign responsibility for funding transportation improvements to new development in the affected area by assessing development fees or fair share contributions. (GP2020 REVISED)

Program C-CT-8: Coordinate with Caltrans, California State Department of Parks and Recreation, the California Coastal Commission, Sonoma County Transportation and Public

Commented [A27]: Is this feasible? What would this policy involve? Planned retreat is usually done as a solution to the effects of SLR such as erosion and flooding and may not be the best solution for wildfire resilience. Instead suggest including a policy that encourages identification of sections of H1 that are most at risk to wildfires, and create solutions to reduce that risk, such as vegetation management. There also could be a policy to create fire damage repair guidelines or policies to enable quick repair of fire damaged areas consistent with LCP/CA policies. At the same time this should reference polices in the hazards section on wildfire adaptation

Commented [A28]: Comments on Heritage Road Program above

Commented [A29]: Edits made to incorporate SLR. The heritage road program should not prevent climate change adaptation.

Works, Sonoma County Regional Parks, and other appropriate entities in developing and implementing guidelines for expediting the review and permitting of road repair and maintenance activities consistent with the policies of the Local Coastal Plan. These guidelines shall contain specific guidance for emergency repairs and procedure for determining if a project can be excluded from needing a Coastal Development Permit. (MOVED FROM OTHER INITIATIVES AND REVISED)

5.2 OTHER INITIATIVES

Other Initiative C-CT-1: Encourage ongoing development of the Safe Routes to School program by coordinating efforts of advocacy groups, school districts, and County departments. (GP 2020)

Other Initiative C-CT-2: Encourage Sonoma County Transit to coordinate with Mendocino Transit Authority and Marin Transit to improve and expand regional bus service for Sonoma County coast visitors and residents. (NEW)

Other Initiative C-CT-3: Work with transportation agencies to maximize funding from Federal and State governments to address existing deficiencies, improve safety, and support ongoing maintenance of the circulation and transit system. (GP2020 REVISED)

Figure C-CT-1a: Road and Bikeway Classification – SubAreas 1 - 3
(11x17)

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Figure C-CT-1b: Road and Bikeway Classification – SubAreas 4 - 6
(11x17)

DRAFT

Figure C-CT-1c: Road and Bikeway Classification – SubAreas 7 - 10
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September 27, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update: Public Safety Chapter

Dear Ms. Condon and Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 9: Public Facilities and Services.

The list below is intended as a complement to the in-line edits and comments provided for the Public Facilities and Services Element, but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff:

1. In the body of this chapter, there should be a section discussing relevant Coastal Act policies and how they relate to public facilities and services in Sonoma County. To complement this discussion, relevant coastal act policies should be incorporated in relevant part, including:
 - Section 30114. "Public works"
 - Section 30118. "Special district"
 - Section 30212.5. "Public facilities; distribution"
 - Section 30222. "Private lands; priority and development purposes"
 - Section 30231. "Biological Productivity, Water quality"
 - Section 30250. "Location; existing developed area"
 - Section 30254. "Public works facilities"
 - Section 30254.5. "Terms or conditions on sewage treatment plant developments"
2. To complement Policy C-PF-2a and C-PF-2p this chapter should include a discussion on Coastal Act priority and non-priority uses The Land Use Element

Table C-LU-2 does contain information on establishing what priority and non-priority uses are, but does not contain information specifically relating to water and sewer resources and how limited water and sewer capacity might be allocated to the designated priority vs. non-priority uses.

3. Overall, this element does not contain any information or guidance on the potential effects of climate change and sea level rise on the availability of water and the build-out of sewer systems. This should be incorporated into this element, especially when considering new water and wastewater systems such as outlined in Policy C-PF-2d.
4. This element seems to be missing specific information and data on the capacity that exists for future development within Sonoma County. Other LCP updates commonly contain details on what is available for future buildout, including estimated water demands, the amount of available water under different development horizons, the estimated amount of water connections available, and equivalent information on wastewater management. Having this data allows the County to divide future capacity between priority and non-priority uses, gives the public an awareness of what might be available for non-priority uses in the future, and establishes back stops to assure all prospective development, whether priority or not, is able to be served. We highly recommend including this data in this element, or if this data does not currently exist, include gathering this data as an actionable policy in this element such as shown in the comments on Other Initiative C-PF-1.

Again, we thank you for your efforts to date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Public Facilities and Services Element: Table of Contents

Public Facilities and Services Element	3
1 Introduction	3
1.1 Purpose.....	3
1.2 Relationship to Other Elements.....	3
1.3 Scope and Organization	3
2 Goals, Objectives, and Policies General.....	4
3 Water and Wastewater Treatment	4
3.1 Water Services.....	5
Public Water Systems	1
Bodega Bay Public Utility District	1
Duncans Mills Trading Company and Camping Company	1
Russian River Utility – Sereno del Mar Water Company and Carmet-by-the-Sea Mutual Water System	1
The Sea Ranch Water Company.....	2
Timber Cove County Water District.....	2
3.2 Wastewater Treatment and Disposal Services.....	2
On Site Wastewater Treatment Systems.....	3
3.3 Goals, Objectives, and Policies Water and Wastewater	4
4 Parks and Recreation	9
4.1 Goals, Objectives, and Policies Parks and Recreation.....	9
5 Public Education	10
5.1 Schools.....	10
Elementary Schools.....	11
High Schools.....	12
5.2 Goals, Objectives, and Policies Schools.....	12

6	Fire Protection and Emergency Medical Services	12
6.1	Fire Protection Services Add Bodega Bay Program	12
6.2	Emergency Medical Services	14
6.3	Goals, Objectives, and Policies Fire Protection and Emergency Medical Services	15
7	Law Enforcement Services	16
7.1	Goals, Objectives, and Policies Law Enforcement Services	17
8	Solid Waste Management Services	17
8.1	Goals, Objectives, and Policies Solid Waste	18
9	Public Utilities And Telecommunications	19
9.1	Goals, Objectives, and Policies Public Utilities and Telecommunications	20
10	Youth and Family Services.....	21
10.1	Goals, Objectives, and Policies Youth and Family Services.....	21
11	Implementation programs.....	23
11.1	Public Facilities and Services Programs.....	23
11.2	Other Initiatives	24

Public Facilities and Services Element

I INTRODUCTION

I.1 PURPOSE

The Public Facilities and Services Element addresses nine types of public services mainly related to the physical development of the Sonoma County coast. These services include: water, wastewater disposal, public education, fire protection, law enforcement, medical, solid waste management, public utilities, and youth and family services.

The purpose of this Element is to lay the groundwork for future decisions related to these public services and infrastructure, to establish future policy regarding providing facilities for these services, and to integrate public service concerns into land use decision making. This Element is designed to increase the likelihood that public services will be available when needed to serve the residents and businesses of the Sonoma County coast.

The Public Works policy of the 1976 California Coastal Act allows, consistent with the General Plan, development of public works capacity to accommodate needs identified by the Local Coastal Plan. Where the capacity of basic public works is limited, development of land uses encouraged by the Coastal Act, such as coastal dependent industry, receive priority over other uses.

I.2 RELATIONSHIP TO OTHER ELEMENTS

Highway and public transportation needs are identified and addressed in the Circulation and Transit Element. Water supply and water quality issues are addressed in the Water Resources Element. Needed park and recreation facilities are identified and addressed in the Public Access Element.

I.3 SCOPE AND ORGANIZATION

The Public Facilities and Services Element describes the current status of public services in terms of service capacity and demand in relation to projected growth. It is divided into sections providing policy direction for each type of public facility or service. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as “Other Initiatives,” that support the provision and maintenance of adequate public facilities and services within the Coastal Zone.

Commented [A1]: This chapter should have section discussing the relevant Coastal Act policies and how they relate to Public Facilities and Services. In addition, please include from the Coastal Act:

- Section 30114 “Public Works”
- Section 30118. “Special District”
- Section 30212.5. “Public facilities; distribution”
- Section 30222. “Private lands; priority and development purposes”
- Section 30231. “Water quality protection”
- Section 30250. “Location; existing developed area”
- Section 30254. “Public works facilities”
- Section 30254.5 “Terms or conditions on sewage treatment plant development.”

2 GOALS, OBJECTIVES, AND POLICIES | GENERAL

Goal C-PF-1: Ensure that water supply and wastewater treatment and disposal, park and recreation, public education, fire protection and emergency medical, law enforcement, medical, and solid waste management services and public utility sites are available to meet the future needs of Coastal Zone residents and visitors.

Objective C-PF-1.1: Limit water supply and wastewater treatment and disposal, parks and recreation, public education, fire protection and emergency medical, law enforcement, solid waste management, and public utilities facilities and services to those needed for projected demand from existing development.

Objective C-PF-1.2: Help County Service Areas and Special Districts to provide needed public facilities and services.

The following policies, in addition to those in the Water Resources and Open Space and Resource Conservation Elements, shall be used to achieve these objectives:

Policy C-PF-1a: Water supply and wastewater treatment and disposal, parks and recreation, public education, fire protection and emergency medical, law enforcement, solid waste management, and public utilities facilities and services shall be planned, designed, and constructed in accordance with projected demand from existing development as identified by Local Coastal Program (LCP) land use policies [and the Chapter 3 requirements of the Coastal Act](#).- (GP2020)

Policy C-PF-1b: New Special Districts shall only be established within defined Urban Service Areas and Rural Community Boundaries as designated in the Local Coastal Plan. Special districts shall only be formed or expanded where assessment for, and provision of, service would not induce new development inconsistent with policies of the LCP. (EXISTING LCP REVISED)

3 WATER AND WASTEWATER TREATMENT

On the Sonoma County coast, development is concentrated in Urban Service Areas and Rural Communities. The Coastal Act mandates that new development be located in close proximity to developed areas with public facilities and services. To delineate the areas appropriate for development in the Coastal Zone, Urban Service Areas have been established on the Local Coastal Plan Land Use Map ([C-LU-1a thru 1k](#)) and include The Sea Ranch and Bodega Bay. Rural Community Boundaries, areas that were previously subdivided or developed with public water and private Onsite Waste Water Treatment Systems (OWTSs), have also been established on the Land Use Map and include Duncans Mills, Jenner, Sereno del Mar/Carmet, Salmon Creek, Timber Cove, and Valley Ford.

On the coast expansion of public sewer beyond the boundaries of Urban Service Areas and expansion of public water or public sewer beyond the boundaries of Rural Communities are prohibited except

Commented [A2]: This chapter should include a discussion of Coastal Act priority uses (Coastal-dependent uses, visitor-serving commercial uses, coastal access and recreational facilities, and agricultural uses) and that water supply and wastewater treatment for these priorities take precedent, consistent with Coastal Act Section 30254. This discussion should also relate the Coastal Act development priorities with non-priority development, and how future water connections and wastewater treatment capacities will be distributed between these different priorities.

under specific conditions. Development infill is expected where water and OWTs or sewer regulations can be met. Part of the development infill strategy is to encourage consolidation of adjacent lots in high hazard areas or visually and environmentally sensitive areas in accordance with Coastal Act policies to protect views and coastal resources and minimize public safety hazards.

Commented [A3]: Please elaborate. What specific conditions?

The California Coastal Act mandates that new development be located in close proximity to developed areas with public services and facilities. In order to delineate the areas appropriate for development, an Urban Service Area Boundary has been established on the Bodega Bay and Sea Ranch Land Use Plan Maps. Expansion of public sewer beyond this area is prohibited except as allowed by policies in the Public Facilities and Services Element. The Local Coastal Plan also establishes Rural Community Boundaries in areas that were previously subdivided or developed with public water and private OWTs. Extension of public water beyond or public sewer into these areas is prohibited except under specific conditions.

Commented [A4]: This paragraph seems very similar to the two paragraphs above. Please explain the specific purpose here in re-iterating the content of the preceding two paragraphs, or delete.

3.1 WATER SERVICES

An adequate and healthful water supply is essential if the Sonoma County coast is to sustain its residential population and its economic stability. As noted above, the Water Resources Element establishes goals, objectives, and policies addressing a broad range of water-related issues, including water quality and supply pertaining to private wells and public water systems. This section is intended to address issues regarding improving water systems for moderate expansion of planned communities, developing new water systems, and extending water services to new areas not currently served.

The Sonoma Coast is a water scarce area, and developing reliable water sources for urban development is very difficult. Several wells or springs may be needed to produce even modest water yields. Most of the water systems on the coast are small and substandard in some respect. The main problems are insufficient water and limited financial capability. Water sources are generally wells or creeks which may run low in summer months when demand is highest. Most coastal wells produce only a limited amount of water at any time due to the geology of the area. The owners of small water systems cannot afford extensive search for and development of additional water supplies.

No additional sources of water supply appear feasible for the communities of Jenner, Rancho del Paradiso, Bridgehaven, West Beach, and Valley Ford. The Salmon Creek subdivision has marginally adequate water supplies for existing development. If adequate water supplies are not available, some lots in the existing subdivisions may be unbuildable. Water system development and improvement continues at The Sea Ranch, Timber Cove, Sereno del Mar, Carmet, and Bodega Bay. Water supplies sufficient for subdivision buildout or moderate additional expansion appears limited to these five areas and Duncans Mills.

Maintaining the quality of water in small water systems, especially surface springs and storage tanks, is problematic because it requires periodic monitoring and testing. Several older small water systems

are poorly designed or maintained resulting in inadequate water pressure. The firefighting capability of most of the systems is inadequate because of limited water supplies or low water pressure.

The Sonoma County coast has about 16 water systems that fall under the regulatory authority of the State Water Resources Control Board (Water Resources Board) as a “public water system”. A public water system is a system for providing piped water to the public for human consumption that has 15 or more service connections or regularly services at least 25 individuals daily at least 60 days out of the year. The Water Resources Board regulates three main types of public water systems, defined below.

- (1) **Community:** a public water system that has 15 or more service connections or regularly services at least 25 resident individuals at least 60 days of the year. This category includes subdivisions, mutual water companies, and mobile home parks.
- (2) **Non-Community Transient:** a public water system that serves at least 25 non-resident individuals daily at least 60 days of the year, but no more than 24 year-round residents. This category includes restaurants, campgrounds, small wineries, and motels.
- (3) **Non-Community Non-Transient:** a public water system that serves at least 25 of the same persons over 6 months of the year. This category includes schools and larger places of employment with more than 25 employees.

The public water systems on the County coast range in size from The Sea Ranch Water Company, a Community system with 1,684 connections; to the Blue Heron Restaurant, a Non-Community Transient system with one connection. Table C-PF-1 provides general information about the public and private water systems on the coast. On occasion, operator inattention or lack of funding leads to public water system failure and a request for County takeover of the water system. County management of the water system can improve reliability, but funding may still be lacking. In relying on small water systems to support development, careful consideration should be given to long-term management issues.

Commented [A5]: Please label which systems in the table are public or private. In addition, the title of the table should be changed since “Characteristics of Public Water Systems” implies that this table does not include private water systems.

Table C-PF-1. Characteristics of Public Water Systems

Water System	Type	Uses Served	# Connections/ Lots Served	# Vacant Lots or Lots Not Served	Source of Water Supply	Adequacy of Water Supply
Bodega Bay Public Utilities District	Community	Residential Commercial Industrial	1,058	194	Salmon Creek (2 wells) Roppolo wellfield - 3 wells Sand Dunes wellfield - 2 wells	Adequate
Fort Ross School District	Non-Transient Non-Community	School	9	N/A	Groundwater well onsite	Adequate
Sonoma County County Service Area (CSA) 34 - Jenner	Community	Residential Restaurant Hotel/Motel Public (297 parcels total)	136	174	Jenner Creek	Adequate
Sonoma County CSA 41 - Salmon Creek	Community	Residential Public (130 parcels total)	99	36	Groundwater well on Maryana Drive; Spring - general subsurface flow of water from hills east of Salmon Creek; water collection and treatment system improvement project constructed in 2014	Adequate since water collection and treatment system improvement project constructed in 2014
Timber Cove County Water District	Community	Residential	176	129	Timber Cove Creek, water stored in reservoir at 22108 Timber Cove Road constructed in 1997	Reservoir volume adequate to supply 4 months water supply at build-out
Blue Heron Restaurant	Transient Non-Community	Restaurant	1	N/A	Sweetwater Springs Mutual Water Company	Adequate
Bridgheaven Trailer Park	Community	Recreation	31	N/A	Spring about 150 yards uphill from water treatment building at trailer park Stream about 100 yards from south end of bridge at Jenner (from Red Hill)	Adequate
Casini Ranch Campground Water System	Transient Non-Community	Recreation	14	N/A	2 wells 1 spring	More than adequate
Duncans Mills Camping Company	Transient Non-Community	Recreation Restaurant Retail	125	N/A	Well 1,400 feet from Russian River	Adequate

Commented [A6]: If data is available, please include another column that describes the capacity available to serve vacant lots/lots not served, eg. the number of connections available in vacant lots.

Table C-PF-1. Characteristics of Public Water Systems

Water System	Type	Uses Served	# Connections/ Lots Served	# Vacant Lots or Lots Not Served	Source of Water Supply	Adequacy of Water Supply
Duncans Mills Trading Company	Transient Non-Community					
Fort Ross Lodge & Store	Transient Non-Community	Restaurant Hotel/Motel	2	N/A	Well below lowest unit of lodge	More than adequate
Rancho Del Paradiso - California Water Service Company	Community	Residential	58	8	Intertie pipeline to Sweetwater Springs Water District facility in Monte Rio constructed in 2006	Adequate since 2006 intertie constructed
Russian River Utility Sereno Del Mar Water Company - Sereno del Mar	Community	Residential	168	9	9 wells - two gallery inlets from underflow of Scotty Creek, seven wells 70 feet deep; One spring about half mile east	Adequate
Russian River Utility Carmet-by-the-Sea Mutual Water System - Carmet	Community	Residential	64	0	2 horizontal wells on hillside east of subdivision	Adequate
Russian River Utility Sereno Del Mar Water Company - Gleason Beach	Community	Residential	20	5	50 meter wells and Carmet-by-the-Sea springs	Adequate
The Sea Ranch Water Company	Community	Residential Commercial	1,857	605	Gualala River	Adequate
Timber Cove Inn	Non-Transient Non-Community	Hotel/Motel	3	N/A	Timber Cove County Water District	Adequate
Valley Ford Water Association	Community	Residential Commercial	19	0	3 wells south of community along north side of Estero Americano	Poor water quality – see above under “Public Water Systems”
Stillwater Cove Regional Park	Transient Non-Community	Recreation (campground w/22 sites, Ranger residence, office)	2	0	Canyon well – winter & spring (next to Regional Parks office driveway) Creek well – summer & fall (next to Stockholm Creek)	Adequate

Commented [A6]: If data is available, please include another column that describes the capacity available to serve vacant lots/lots not served, eg. the number of connections available in vacant lots.

Public Water Systems

All public water systems on the Sonoma County coast have adequate water supply and quality for all existing and planned development (per consultation with water system operators), with the exception of the Valley Ford Water Association (Water Association). Their water supply is of poor quality. Quarterly nitrate monitoring shows the maximum nitrate level is frequently exceeded, and monthly bacteriological sampling shows frequent positive total coliform and occasional E. coli detections at all three wells. The Water Association is in the process of submitting an application to the Drinking Water State Revolving Fund for a construction project that includes connection to a well, installation of a proposed treatment facility, and disconnection from the existing wells. In addition, the North Coast Regional Water Quality Control Board is planning to conduct a nitrate source investigation in the Valley Ford area (State Water Resources Control Board, personal communication, April 2017).

Commented [A7]: Please define “adequate water supply” in this context. Is this under a stable water supply and per capita use rates? Under what planned development horizon?

Commented [A8]: Under what parameters? If possible, include a summary of this information, or at minimum provide a link or a citation so users can review this data.

Bodega Bay Public Utility District

The Bodega Bay Public Utility District (Bodega Bay District) provides water service to the residential, commercial, and industrial development in Bodega Bay, including the Bodega Harbour Subdivision, U.C. Davis Bodega Marine Laboratory, U.S. Coast Guard, County Doran Park, County Westside Park, and State Dunes Campground. Its water service area is slightly greater than its sewer service area. Most of the vacant lots in the Bodega Bay District are in the Bodega Harbour and Harbor View subdivisions. The sources of water for the District are the Sand Dunes wellfield (north of Bay Flat Road on the north end of the harbor) and Roppolo wellfield (west of Bay Flat Road on the west side of the harbor), and two wells next to Salmon Creek north of Bodega Bay. Saltwater intrusion has limited the Roppolo wellfield to less than full capacity. The State Department of Water Resources prohibits use of the wells next to Salmon Creek when water depth in the creek drops below ten inches.

The most recent Municipal Service Review of the Bodega Bay District by the Local Area Formation Commission (LAFCO) was in 2004 and identified 1,797 existing Residential Unit Equivalents (RUEs). Most of this capacity went to the Harbor View development of 84 units, including 14 affordable units, developed by Burbank Housing Development, Inc. The Bodega Bay District’s 1998 Master Water Plan identifies the need for a new well and additional water storage to serve the future demand from the previous Bodega Bay Phase I Land Use Plan. The Bodega Bay District constructed a 500,000-gallon water storage tank on District property in July 2003. Permits were issued in 2016 for a new well and water treatment plant off Bay Flat Road, but as of March 2017 they were not in operation.

Duncans Mills Trading Company and Camping Company

Duncans Mills Trading Company and Camping Company provides water to the Duncan Mills Camping Club Campground, retail shops, and restaurant at Duncans Mills. The source of the water is a well located 1,400 feet from the Russian River.

Russian River Utility – Sereno del Mar Water Company and Carmet-by-the-Sea Mutual Water System

As of 1999 Russian River Utility owns and manages the Sereno del Mar Water Company, a private investor-owned water company; and operates under a contract with the Carmet-by-the-Sea Mutual

Water System, a non-profit corporation. Located on State Highway 1 between Jenner and Bodega Bay, the Sereno del Mar Water Company was established in 1970 when the Sereno del Mar subdivision was developed. The Gleason Beach subdivision was added to its service area in 1976. The adjacent Carmet-by-the-Sea Mutual Water System receives treated surface water from the Sereno del Mar Water Company which serves the Carmet subdivision. In 2007 the Sereno del Mar Water Company served 124 customers and had issued permits for 168 water service connections.

The Sereno del Mar Water Company financed construction of a new 212,000-gallon storage tank and source wells completed in 1999. Russian River Utility financed renovation of the surface water treatment plant, a state-of-the-art micro-filtration membrane facility completed in 2001; and Carmet-by-the-Sea Mutual Water Company financed consolidation of the water treatment services at Sereno del Mar completed in 2003. The two companies now operate a joint water source treatment and storage system but are managed separately.

The 1981 Local Coastal Plan addressed the need for the Sereno Del Mar Water Company to prove an adequate water supply for buildout of the Sereno del Mar, Carmet, and Gleason Beach subdivisions pursuant to a State Department of Health Services moratorium limiting the total number of allowable water service connections to 109. In April 2005 the Sereno del Mar Water Company proved an adequate water supply for connections to all existing and future development in these subdivisions.

The Sea Ranch Water Company

The Sea Ranch is a planned community served by The Sea Ranch Water Company. The Water Company's service area encompasses the entire Sea Ranch Association with 2,289 lots including, seven non-Association residential customers, 24 commercial customers. The water supply has a production capacity of 1.58 million gallons per day (MGD) and a treatment capacity of 1.01 MGD. Water Company staff estimate that maximum daily demand at buildout (2,289 units) will be 0.80 MGD, and indicate that based on present water consumption and population projections, the Water Company will be able to meet the present and future demand for The Sea Ranch.

Timber Cove County Water District

The 1981 Local Coastal Plan addressed the need for the Timber Cove Mutual Water Company to meet current health standards for water system design and supply so that the County can allow over 100 water connections to the Timber Cove subdivision. On May 7, 1984 the Timber Cove Mutual Water Company was terminated and the Timber Cove County Water District was formed. On February 9, 1995 the County Board of Zoning Adjustments granted a Coastal Permit for construction of a water reservoir with capacity for 30 acre-feet, small water treatment plant, and water pipe on Timber Cove Road. These water system improvements were constructed in 1997.

3.2 WASTEWATER TREATMENT AND DISPOSAL SERVICES

Untreated or improperly treated wastewater contains bacteria, viruses, chemicals, and nutrients that can cause human diseases; kill or injure plants and animals; and produce surface waters that are contaminated, discolored, or odorous. Since all wastewater is eventually returned to the environment, the public has a vital interest in assuring proper wastewater management. The Water Resources Element establishes goals, objectives, and policies pertaining to water quality and

wastewater management. This section of the Public Facilities and Services Element addresses issues regarding improving existing wastewater treatment systems, developing new wastewater treatment systems, and extending wastewater treatment services to new areas not currently served.

On Site Wastewater Treatment Systems

An on-site wastewater treatment system (OWTS) is an individual wastewater treatment and dispersal system, small community collection, treatment and dispersal systems, or alternative collection and dispersal systems that use subsurface dispersal. These systems are commonly referred to as “septic systems”. OWTSs do not include graywater systems pursuant to the Health and Safety Code Section 17922.12.

A standard OWTS consists of a tank and leachfield (subsurface treatment and disposal of wastewater) and may include a diversion valve and/or pump. Wastewater enters the tank and is retained long enough so that large solid particles and very small solid particles joined together settle to the bottom. Bacteria digest the solids that accumulate in the tank at the bottom (sludge); and the fats, oils, grease, and other materials that float to the surface (scum); the resulting solids must be pumped out periodically. The partially treated wastewater (effluent) leaves the tank in pipes and is discharged below the ground surface into the leachfield, which consists of perforated pipes laid over gravel in trenches (leachlines). The effluent flows along the length of the pipes where it gradually percolates into the soil. The effluent receives secondary treatment through natural physical and microbiological processes in the soil.

New and replacement OWTSs shall be located, designed, constructed, and operated in a manner to ensure that sewage effluent does not surface at any time, that is protective of public health, safety and the environment and that percolation of effluent into the soil will not adversely affect beneficial uses of the waters of the State of California. (OWTS Manual)

The Sonoma County OWTS Manual establishes standards for all on-site wastewater systems in Sonoma County. These standards implement provisions of the Porter Cologne Water Quality Control Act, the State Water Resources Control Board OWTS Policy, and applicable sections of Sonoma County Code Chapters 7 and 24. California Water Code 13282 authorizes counties to adopt and enforce regulations, conditions, restrictions, and limitations regarding the dispersal of waste. The Sonoma County OWTS Manual is the local implementation of this authority.

On coastal parcels, meeting OWTS standards is often the limiting factor for development. On many lots it is difficult to meet the setbacks to property lines, road cuts, streams, drainage courses, cliffs, and the 10-year floodplain due to the small size of the lots, which in many cases were created prior to current OWTS regulations. For example, on small lots in Carmet, Jenner, Sereno del Mar and Salmon Creek, even if the soil has an adequate percolation rate, there is not enough room for even a one-bedroom OWTS. A lot fronting Salmon Creek that is 40 feet long will not meet the required 100-foot setback from the 10-year floodplain. Steep slopes and shallow fractured bedrock also contribute to inadequate conditions for OWTS, as the effluent can move laterally and break out to the surface along the slope.

On Site Wastewater Treatment Systems Regulations

The State Regional Water Quality Control Boards (Regional Board) is responsible for establishing standards for OWTs to protect water resources and public health. Permit Sonoma is the delegated authority for implementation and enforcement of State and County specific OWTs regulations. New OWTs must meet standards for slope, soil depth, depth to groundwater, percolation rate, and system setback distance.

In areas where failure of OWTs are likely to cause health hazards or impair water quality, Permit Sonoma or the pertinent Region Board (North Coast or San Francisco Bay) may issue an Order to prohibit any waiver of existing OWTs installation regulations in a specific area. This Order referred to as a “Waiver Prohibition Area,” is intended to decrease the likelihood of failure of new OWTs. Jenner, Rancho del Paradiso, Sereno del Mar, Carmet, and Salmon Creek are in Waiver Prohibition areas.

On May 13, 2013, the North Coast Regional Board amended their Basin Plan to adopt the Septic System Policy. The Septic System Policy sets minimum standards for OWTs that are constructed or replaced or are subject to a major repair. The Septic System Policy also includes minimum operating requirements for OWTs that include requirements for siting, construction, and performance; OWTs near certain waters listed as impaired under Section 303(d) of the Clean Water Act; corrective action; monitoring; exemption criteria; determining when an existing OWTs is subject to major repair; a conditional waiver of waste discharge; and authorizing local agency implementation of the Septic System Policy.

OWTs Monitoring and Maintenance Program (On-Site Wastewater Disposal Zone). An OWTs monitoring and maintenance program, also referred to as an on-site wastewater disposal zone, is another alternative to individual OWTs. Such a program does not make more lots buildable, rather has the potential for extending the useful life of OWTs and promptly correcting operational problems. A public agency which is authorized to acquire, construct, maintain, or operate sewage treatment systems may run such a program. Once an on-site wastewater disposal zone is established, the agency has the power within that zone to acquire, design, own, construct, install, operate, monitor, inspect, and maintain individual OWTs. The potential for this type of program is widespread on the Sonoma Coast.

A wastewater system monitoring and maintenance program is required for The Sea Ranch. In the late 1980s The Sea Ranch Association and the County of Sonoma created an On-Site Wastewater Disposal Zone (Zone) to address problems with about 1,570 on-site individual OWTs at The Sea Ranch. In July 1989 the Zone was created under the agreement that the Board of Supervisors would contract with The Sea Ranch Association to operate, monitor, inspect, and maintain the OWTs. In July 1995 the Zone was designated as CSA 41 and came under the direction of Permit Sonoma.

3.3 GOALS, OBJECTIVES, AND POLICIES | WATER AND WASTEWATER

GOAL C-PF-2: Ensure that growth and development match existing water and wastewater treatment and disposal capacities.

Objective C-PF-2.1: Plan for growth and development to match existing water and wastewater treatment and disposal capacities and facilities.

Objective C-PF-2.2: Operate County water and wastewater treatment and disposal facilities in compliance with applicable State and Federal standards.

Objective C-PF-2.3: Help resolve water problems resulting from proliferation of small water systems.

Objective C-PF-2.4: Limit extension of public water and sewer services into rural areas.

The following policies, in addition to those in the Water Resources and Open Space and Resource Conservation Elements, shall be used to achieve these objectives:

Policy C-PF-2a: Growth and development shall be planned in accordance with existing water and wastewater treatment and disposal capacities and facilities in accordance with California Coastal Act. Development, including land divisions, shall be prohibited unless adequate water and wastewater treatment and disposal capacities and facilities exist to accommodate such development. In acting on any Coastal Development Permit, determine that adequate capacity is available and reserved in the system to serve Coastal Act priority land uses (i.e., coastal-dependent uses, agriculture, essential public services, and public recreation; see Land Use Element, Table C-LU-2). In areas with limited service capacity, new development for a non-priority use, including land divisions, not specified above shall only be allowed if adequate capacity remains for Coastal Act priority land uses. (NEW)

Commented [A9]: Please state which section or aspect of the Coastal Act you are referencing here.

Policy C-PF-2b: A public water or wastewater district shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with the Local Coastal Plan in accordance with California Coastal Act Section 30254. New development within the service boundary of a public water or wastewater district shall be required to connect to the district for water or wastewater service. (NEW)

Commented [A10]: There should be a discussion outlining Coastal Act priority uses and non-priority uses in this element. Priority uses are explained in the Land Use element, but not specifically in relation to public facilities and services.

Policy C-PF-2c: A Coastal Permit shall be required for water or wastewater management facility expansion or improvement projects unless otherwise exempt by the Local Coastal Program, or the Coastal Act. Development of new or expansion of existing water or wastewater management facilities shall be in phase with the availability of other public works infrastructure. (NEW)

Commented [A11]: How will this be determined? Based on what? There needs to be more data and discussion on what capacity of water currently exists for future development. Specifically, this policy should lay out how and through what studies or application requirements development will prove that it has adequate water capacity to serve it, as well as how it will assure that adequate capacity remains for Coastal Act priority uses.

Policy C-PF-2d: Master plans or equivalent documentation shall be prepared for all water and wastewater management systems prior to approval of facility expansion or improvement projects. All facilities shall be designed and constructed in accordance with the existing and

planned development in the applicable jurisdictions. In the event that a master plan or monitoring fails to show adequate facilities or supplies for existing development, zoning changes, building permits, or other entitlements in order to protect services to existing residents.

The minimum contents necessary for an adequate master plan or equivalent documentation are:

- (1) Maps showing potential future service area boundaries in accordance with California Coastal Act Section 30254.
- (2) Existing development within the existing and potential future service area boundaries.
- (3) Projected growth and the related service and facility needs;
- (4) Estimated costs and revenues for needed improvements;
- (5) System design parameters and assumptions;
- (6) A program for water use reduction; and
- (7) A program to reduce stormwater infiltration. (GP2020)

Policy C-PF-2e: Extension of public sewer services outside of the boundary of The Sea Ranch and Bodega Bay Urban Service Areas shall be avoided. Exceptions to this policy shall be considered, to the extent allowed by law, only:

- (1) Where necessary to resolve a public health hazard resulting from existing development (i.e., contamination of land, surface water, or groundwater resulting from failure of an existing OWTS or other wastewater management system); or
- (2) Where appropriate to allow for development of public park or recreation facilities.

~~A Coastal Permit shall be required for extension of public sewer services outside of an Urban Service Area.~~

Where several failing OWTSs or other health and safety problems which pose a significant hazard to human health and safety exist outside an Urban Service Area that could be addressed by extension of public sewer service, use Outside Service Area Agreements which limit the use of existing development. The evaluation should assure sufficient capacity to serve existing connections and potential buildout in the existing Urban Service Area.

A Coastal Development Permit shall be required for extension of public sewer services outside of an Urban Service Area. (GP2020 REVISED)

Commented [A12]: Please include a point on including the potential effects of climate change on the on the water and wastewater management systems.

Commented [A13]: This seems quite different from Policy C-PF-2c and should be organized into new separate policy.

Commented [A14]: How is this policy distinguishable from Policy C-PF-2c? The County should consider requiring Urban Service Area extension findings for this policy.

Policy C-PF-2f: The following guidelines shall be used for any exception allowed by **Policy C-PF-2e:**

- (1) The property must adjoin the Urban Service Area Boundary, or the proposed connection to a public sewer system must be no more than 200 feet from the Urban Service Area Boundary;
- (2) Size sewage facilities to serve development consistent with the Local Coastal Plan;
- (3) Require written certification, provided by the following organizations, that adequate service capacity is available for the use to be connected to the system; and
- (4) Use agreements, covenants, and zoning to limit the growth inducement potential of extension of public sewer services. (GP2020 REVISED)

Commented [A15]: Please qualify this statement. Which organizations are providing certifications?

Policy C-PF-2g: Extension of public water service to a property that is outside the boundary of an Urban Service Area or Rural Community (i.e., Duncans Mills, Jenner, Sereno del Mar, Carmet, Salmon Creek, Timber Cove, and Valley Ford) shall be avoided. Exceptions to this policy shall be considered, to the extent allowed by law, only:

- (1) Where necessary to resolve a public health hazard resulting from existing development (i.e., failure of water wells or contamination of land, surface water, or groundwater resulting from failure of an existing OWTS or other wastewater management system); or
- (2) Where appropriate to allow for development of public park and recreational facilities.

A Coastal Permit shall be required for extension of public water service. (GP2020)

Policy C-PF-2h: The following guidelines shall be used for any exception allowed by **Policy C-PF-2g:**

- (1) Size facilities to serve development consistent with the Local Coastal Plan;
- (2) Require written certification that adequate service capacity is available for the use to be connected to the system or planned to be connected in the future; and
- (3) Use out-of-service area agreements that limit the use to existing development rather than annexations. (GP2020)

Commented [A16]: Please define the time frame for adequate service capacity. Is it a set 40 years, is it the economic life of the development?

Policy C-PF-2i: Applications for subdivision of land or new development or uses within a water or wastewater service area shall be required to include written certification from the service provider that existing water and wastewater services are available to serve the new parcels, development, and uses; or that the service provider will make improvements to the water or wastewater systems necessary to accommodate the new development and uses prior

to final project approval. The proposed project shall not be considered for approval if this written certification is not provided. (EXISTING LCP REVISED)

Policy C-PF-2j: When considering formation of new water service agencies, systems owned and operated by a governmental entity shall be favored over privately or mutually owned systems. New privately or mutually owned systems shall be authorized only if system revenues and water supplies are adequate to serve existing and projected growth for the life of the system, which shall be ensured through agreements or other mechanisms that set aside funds for long-term capital improvements and operation and maintenance costs. (GP2020)

Policy C-PF-2k: Approval of new wastewater treatment and disposal systems owned and operated by a governmental entity shall be considered only when necessary to resolve an existing public health hazard. (GP2020)

Policy C-PF-2l: New privately owned package treatment plants which serve multiple uses or serve separate parcels shall be avoided. Use of package treatment plants to serve affordable housing or other projects on a single parcel under one ownership shall be allowed provided that they comply with the following criteria:

- (1) The package treatment plant must comply with water quality and health standards and protect water resources;
- (2) The design and appearance of package treatment plants located in agricultural and other rural areas must be compatible with the rural area's character;
- (3) The project must include provisions for the long-term operation, maintenance, and eventual replacement and/or removal of the package treatment plant; and include adequate financing for these provisions through bonds, sinking funds, or other mechanisms; and
- (4) The package treatment plant is not to be used as a basis for approving a new affordable housing development in Rural Communities or on other rural land, or amending the Local Coastal Plan to allow for more intensive development. (GP2020)

Policy C-PF-2m: Consider use of alternative (non-standard) sewage disposal systems only to serve a single land use on a single parcel, and only if the availability of the system does not result in new development, except as allowed by the Local Coastal Plan. (GP2020)

Policy C-PF-2n: Any waiver of Regional Board standards for on-site wastewater disposal in Jenner, Carmet, Rancho del Paradiso, Sereno del Mar, and Salmon Creek shall be prohibited. (EXISTING LCP REVISED)

Policy C-PF-2o: Consider development or expansion of a community wastewater treatment system in areas with widespread OWTS problems that are a health concern and cannot be

addressed by an on-site wastewater maintenance and management program, in compliance with the policies of this Local Coastal Plan. (GP2020)

Policy C-PF-2p: Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development in accordance with California Coastal Act Sections 30222 and 30254. The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority consistent with coastal priority land uses of the Coastal Act. (NEW)

4 PARKS AND RECREATION

Outdoor recreation contributes to the tourism economy, enhances the quality of life for County residents and visitors, and conserves unique natural and cultural resources. The Public Facilities and Services Element describes the current status of public recreation in general terms of service capacity and demand in relation to projected growth. The needed park and recreation facilities are identified and addressed in the Public Access Element.

The various types of parkland found in Sonoma County are based on the Board of Supervisors approved parkland classification system. County planning staff considers a variety of factors in determining the need for local parks (e.g., Neighborhood and Community Parks) and the more intensively developed park and recreation facilities (e.g., Regional Recreation Areas). These factors include, but are not limited to, community preference, nearby population densities, proximity to other recreational areas and facilities, local and regional tourism, and accessibility, among others. Parkland needs for the resource-based park and recreation facilities (e.g., Regional Open Space Parks, Preserves, and Trails) are determined by these and other criteria, and are described in the Public Access Element.

4.1 GOALS, OBJECTIVES, AND POLICIES | PARKS AND RECREATION

Goal C-PF-3: Provide adequate park and recreation services on the Sonoma County coast.

Objective C-PF-3.1: Provide an adequate supply and equitable geographic distribution of regional and local park and recreation services based on population projections, estimated user demand, and Local Coastal Plan resource objectives.

Commented [A17]: We suggest adding an environmental justice policy

Objective C-PF-3.2: Use guidelines established by the Board of Supervisors as the minimum standards for determining park needs.

The following policies, in addition to those in the Open Space and Resource Conservation and Public Access Elements, shall be used to achieve these objectives.

Policy C-PF-3a: The Public Access Element and Plan shall be used to determine regional park needs, including County regional open space parks, County trails, and State parks in order to support recreation in the Coastal Zone. (NEW)

Commented [A18]: The public access element and plan should include monitoring of regional park usage in order to assess park needs and demands.

Policy C-PF-3b: The proposed accessway, park, and trail descriptions in the Public Access Plan shall be used to determine Local Coastal Plan consistency of proposed accessways, parks, and trails as consistent with the Public Access Element. (GP2020)

Policy C-PF-3c: Continue to implement park impact mitigation that allows for the dedication of land, the payment of fees, or both as a condition of approval for development projects. (GP2020)

Policy C-PA-3k: Allow park residences in areas visible to the public where necessary for security reasons and when impacts on views are mitigated. (EXISTING LCP REVISED)

Policy C-PA-3l: Allow extension of sewer service to parklands only where consistent with policies of the Public Facilities and Services Element of this Local Coastal Plan. (EXISTING LCP REVISED)

Policy C-PA-3n: Provide restrooms at significant recreational areas to protect coastal resources and public health and safety. Consider use patterns and the proximity of other nearby public restrooms when determining facility needs. (EXISTING LCP REVISED)

Policy C-PA-3p: Encourage the California Department of Parks and Recreation to install emergency communication facilities at Goat Rock. (NEW)

5 PUBLIC EDUCATION

5.1 SCHOOLS

As the Sonoma County coast has relatively low population densities, schools are widely spaced in five Elementary School Districts and three High School Districts, and tend to be small with combined classes. Specialized education facilities are minimal. Each school district has its own revenue base, elected board, and administration. The Sonoma County Office of Education provides some administrative and business services to all districts. **Figures C-PF-1a to C-PF-1c** show the Public School Districts on the coast.

A major issue in planning for new facilities is the need for increased coordination between land use and facilities planning. Districts must be aware of the projected residential growth in their service area so that new school needs can be accurately forecast. An important source of financing for new school facilities is the "school impact" fee on new residential construction. State law now authorizes local school districts to charge development fees for permanent facilities. However, funding will likely continue to depend on State sources. California law also enables a County to acquire new school sites by dedication as a condition of subdivision approval.

Elementary Schools

All elementary school districts must meet minimum state requirements regarding class sizes. Maximum class sizes for grades K-8 vary per California Education Code sections 41376 and 41378, which prescribe the maximum class sizes and penalties for districts across California. For Kindergarten, the average class size must not exceed 31 students, with no class larger than 33 students; for grades 1-3, the average class size must not exceed 30 students, with no class larger than 32 students; for grades 4-8, the average class size must not exceed either 29.9 students or the average of the district in 1964, whichever is smaller. Additional classrooms are usually constructed only when these limits are reached.

Horicon Elementary School District. Horicon Elementary School District consists of one school, Horicon Elementary School, which is located in the community of Annapolis. Enrollment at Horicon Elementary School decreased from 80 students in four classrooms in 1979 to 47 students in four combined classrooms at the start of the 2015-2016 school year. According to the District, the number of students has been declining, as is common with general school enrollment trends statewide. Over the last eight school years, the student population has fluctuated between 70 students in 2011, 57 students in 2012, 60 students in 2013, 66 students 2014, 61 students in 2015, 47 students in 2015-2016 school year, 59 students in the 2016-2017 school year, 62 students in the 2017-2018 school year before reaching a total of 69 students in the current 2018-2019 school year. The school serves students from the communities of The Sea Ranch and Annapolis. According to the District, there is no anticipated growth or need for additional facilities.

Fort Ross School District. The Timber Cove Subdivision is the largest planned residential development in, and the main growth area for, the Fort Ross School District. Enrollment at the Fort Ross Elementary School decreased from 53 students in two classrooms in 1979 to 32 students in two classrooms during the 2014-2015 school year, to 28 students in two classrooms during the 2015-2016 school year. Since then the student population continues on the downward trend having 24 students in the 2016-2017 school year, 19 students in the 2017-2018 school year, and finally 21 students for the current school year. The District has seen a fluctuation within the last few years between 27 and 32 students, but generally the District enrollment has been steadily declining over the last 20 years. The District has a preschool site within a classroom at the Fort Ross Elementary School which is run by River to Coast Children's Services based in Guerneville. However, there is no current enrollment at the preschool. When enrollment resumes, the River to Coast Children's Services would remain responsible for running the preschool program at the school.

Monte Rio School District (outside Coastal Zone). Coastal areas are not expected to contribute significant numbers of new students to the Monte Rio School District. Enrollment at Monte Rio Elementary School decreased from 219 students in eight classrooms in 1979 to 112 students in six classrooms in 2005. There has been an additional decrease in student population figures, with 84 students using nine classrooms in 2015. The District believes that the decline in enrollment is due to the decrease in families moving to the area. The 2015-2016 school year brought one additional student to make 85 students for the school year, 90 students in 2016-2017, the 2017 to 2018 school year had 89 students, and 84 students in the current school year of 2018-2019. The District projects a decrease in enrollment in the future for the same reason.

Shoreline School District. South Coast students attend Bodega Bay Elementary School for grades K-5, and are bused to Tomales Elementary School (outside of Sonoma County Coastal Zone) for grades 6-8. As most students attending Bodega Bay Elementary School are from the immediate area, construction of additional classrooms would be needed to accommodate additional Bodega Bay area growth. Enrollment at the Bodega Bay Elementary School decreased from 70 students in three classrooms in 1979 to 40 students in three classrooms in a new school in 2005, to 19 students using two classrooms in 2015-2016 school year. Since then there was a slight increase to 25 students for the 2016-2017 school year, 26 students in 2017-2018, and 23 students in the current school year 2018-2019. The District believes that enrollment numbers could fluctuate because of interdistrict transfers largely from Coast Guard families.

High Schools

The Sonoma County coast is served by three high schools in three school districts, none of which are on the coast. Students from Annapolis, The Sea Ranch, and Stewarts Point attend Point Arena High School in Mendocino County; students from Fort Ross through Bodega Bay attend El Molino High School in Forestville, and South Coast students attend Tomales High School in Marin County.

Impacts of growth on high schools are not as severe as for elementary schools and are harder to estimate. Class sizes, schools, and district areas are larger. High schools have more flexibility in handling increments of students from specific development areas without adding classrooms or teachers.

5.2 GOALS, OBJECTIVES, AND POLICIES | SCHOOLS

Goal C-PF-4: Provide school facilities adequate to meet the future needs of Sonoma County coast residents.

Objective C-PF-4.1: Accommodate new school sites as needed.

The following policies shall be used to achieve these objectives:

Policy C-PF-4a: Continue to implement school impact mitigation that allows for the dedication of land, the payment of fees, or both as a condition of approval for development projects. (GP2020)

6 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

6.1 FIRE PROTECTION SERVICES ADD BODEGA BAY PROGRAM

Fire protection and emergency medical and rescue services are essential to the protection of life and property in the unincorporated areas of Sonoma County. They are provided by four types of agencies. The California Department of Forestry and Fire Protection (CalFire) provides services to State Responsibility Areas. Fire Protection Districts provide services with revenues from property taxes, and are usually created to provide a reliable funding source to sustain a stable and/or increased level of fire

protection services to certain areas of the County. Volunteer fire companies provide local services in rural communities. CSAs and Community Service Districts (CSDs) are areas of the County which bear a special tax assessment for particular types of extended services, such as structural fire protection; they rely primarily on volunteer staff.

CSA 40 is a County entity that provides a moderate amount of funding and relies primarily on volunteer staff in various CSAs. CSA 40 also provides management oversight for, directs, and coordinates the various volunteer fire companies; and supplies training, safety equipment, and insurance coverage for voluntary staff.

The County has established the Department of Fire and Emergency Services (DES) to coordinate the fire protection service agencies in the County. DES contracts with various Fire Protection Districts and municipal fire agencies to provide support services including code enforcement, construction plan checking, and fire safe planning.

Fire protection services are highly dependent on paid on-call, paid part-time, and volunteer personnel. Although this dependency remains, the number of volunteer firefighters has fallen off in recent years. While the County generally has been receiving acceptable levels of fire protection services, problems have resulted from the condition of existing equipment and matching the type of equipment and staff training to the type of fire. The Bodega Bay Fire Protection District; and The Sea Ranch, staffed by CalFire personnel funded through CSA 40, provide the only fire protection services by full time staff on the Sonoma County coast.

In addition, various levels of certification and safety standards are now required for many activities performed by volunteer staff. It is becoming increasingly difficult to maintain sophisticated emergency medical training and first responder training for hazardous materials, terrorism, and natural disasters. The need to comply with Federal and State mandated standards for personal safety equipment and training is also straining the system. These additional requirements further increase the amount of time volunteer staff must spend in training and the necessary level of their commitment. Volunteers, usually younger workers, often have difficulty finding affordable housing and may have to travel out of the immediate area for employment. These factors contribute to the difficulty volunteer fire companies have in recruiting and retaining volunteers.

Demand for increased fire suppression and emergency medical services will not be generated by housing, population, or job growth alone. Increases in tourism, increases in level of service expectations, and changes in the population mix will also affect demand.

The Department of Fire and Emergency Services projects that the most pressing and costly needs involve staffing levels. It anticipates a shift from volunteer supported services to an even greater reliance on paid personnel. This shift will be accompanied by a trend from volunteer companies to formation of special districts.

The primary tasks with regard to fire services planning are to ensure that needed organizational changes occur in a timely and cost effective manner, and to secure adequate revenue sources. Emergency medical services should also be evaluated, since the growth in medical calls over the first half of the decade has consistently outpaced fire emergency calls.

On the Sonoma County coast all communities are served by volunteer fire departments with the exception of Duncans Mills and Jenner, served by the Monte Rio Fire Protection District; Bodega Bay,

served by the Bodega Bay Fire Protection District; and The Sea Ranch and Annapolis, served by the North Coast Fire Protection District (established in April 2016) The Fort Ross and Bodega Volunteer Fire Departments are funded by CSA 40. Timber Cove is a special tax district, not part of CSA 40.

Figures C-PF-2a to C-PF-2c show the Fire Protection Districts on the coast.

Structural fire protection on the coast has general inadequacies common to many rural areas. The Sea Ranch, Timber Cove, and Bodega Bay are the only areas with adequate water supply and water pressure for firefighting. Most departments lack paid staff and up-to-date firefighting equipment. The average age of fire apparatus is 26 years. Most of the fire stations are in need of maintenance and repair, and some need to be replaced. Fire protection response areas tend to be large, with limited road access. These factors combined with volunteer fire departments make for relatively long response times.

Increases in coastal development are not likely to bring about substantial changes in the organization of coastal fire departments because the costs for fire protection are too high. Only The Sea Ranch and Bodega Bay are expected to reach levels of development where minimal paid staffing levels would be possible. However, increased development and public access to the Sonoma Coast will increase fire risk and demand for emergency medical services. The aging demographics of coastal communities will make the recruitment of young volunteers problematic. Increasingly limited funds at Federal, State, and local levels make acquisition of fire equipment difficult, especially for departments that have relatively low call volume.

6.2 EMERGENCY MEDICAL SERVICES

The Sonoma County Coastal Zone lacks any hospitals, trauma centers, or health care clinics, with the exception of limited services provided by the Gualala Health Center located just north of the county line in Gualala. Medical emergencies require patients to be stabilized by fire protection district first responders and transported to medical facilities located inland along the Highway 101 corridor by ambulance or helicopter, with transport times of up to two hours. Maintaining emergency medical services is critical to protecting the health and safety of residents and visitors to the Sonoma Coast, and fire protection districts struggle with inadequate staffing, resources, and financial support.

The Coast Life Support District (CLSD) is a special tax district charged with providing basic and advanced life support ambulance services north of the Fort Ross Store, and includes the communities of communities of The Sea Ranch, Annapolis, Stewarts Point, Timber Cove, and Fort Ross. CLSD serves a large geographic area from the town of Gualala in Mendocino County. Because of the large area, ambulance service from the Russian River Fire Protection District in Guerneville supplements the ambulance services provided by CLSD. The Russian River Fire Protection District also provide ambulance services to the central Coastal Zone between Fort Ross and Shell Beach near Wright Hill Road.

Bodega Bay Fire Protection District (BBFPD) provides emergency medical and advanced life support ambulance service to the South Coast, from the Russian River south to Tomales Bay and Dillon Beach in Marin County. This area includes most of the population and accounts for the majority of calls for service in the Coastal Zone. BBFPD responds to 750 calls per year for medical emergencies, with the majority of these calls related to rescue and emergency medical services for visitors to the Coastal Zone. BBFPD understaffed, has an unsustainable structure debt, and lacks a sustainable source of

income. Insolvency of BBFPD would reduce significantly safety of visitors to the Coastal Zone. Maintaining BBFPD's 24-hour paid staff of emergency medical technicians and paramedics is an important component of providing the public with safe access to the Sonoma Coast.

6.3 GOALS, OBJECTIVES, AND POLICIES | FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Goal C-PF-5: Ensure that adequate fire protection and emergency medical services are provided to meet the future needs of Coastal Zone residents and visitors.

Objective C-PF-5.1: Improve fire protection services to the Sonoma County coast.

Objective C-PF-5.2: Promote cooperation among fire protection and emergency medical service agencies in the area of public education and awareness, especially in those areas isolated from emergency service providers either by distance or topography.

Objective C-PF-5.3: Encourage more effective use of existing fire protection and emergency medical services by emphasizing an integrated response system on the Sonoma County coast.

Objective C-PF-5.4: Maintain health, emergency medical, and other medical services to the Sonoma County coast, particularly to the South Coast.

The following policies shall be used to achieve these objectives:

Policy C-PF-5a: Emergency Services shall review and comment on any proposed changes in the boundaries of areas of State and local responsibility for wildland fire protection, and the service boundaries of local Fire Protection Districts and volunteer fire companies. (GP2020)

Policy C-PF-5b: Prior to project approval, require written certification from the applicable fire service agency (e.g., County DES) that the project meets or exceeds current fire regulations and that fire protection and related services customarily provided to comparable uses are adequate and available or will be available prior to occupancy for projects within the service area. (GP2020 REVISED)

Policy C-PF-5c: Support establishment of a health clinic in Bodega Bay or another location on the southern portion of the Sonoma County coast. (EXISTING LCP REVISED)

Policy C-PF-5d: Continue to coordinate fire protection services and planning with all other related agencies.

Policy C-PF-5d: Support actions, including consolidation of fire districts and increased tax revenue that will provide sustainable fire protection and emergency medical services. Identify funding opportunities that will require visitor serving uses to provide support to

emergency service providers that is proportional to the demand for service created by visitors to the Coastal Zone. (NEW)

7 LAW ENFORCEMENT SERVICES

Law enforcement on the Sonoma County coast is the responsibility of the California Highway Patrol, Sonoma County Sheriff's Department, and State and County Park Rangers. The Sea Ranch maintains a private security force.

The coast is a large, sparsely populated area with limited access roads and rugged terrain. As such, provision of law enforcement services is necessarily limited. Resident Sheriff deputies are stationed at The Sea Ranch, Fort Ross, Timber Cove, and Bodega Bay. They investigate criminal complaints and respond to service calls, including search and rescue calls. Each deputy is on call five days a week and deputies alternate days off. Manpower is very limited.

The California Highway Patrol (CHP) has no regular beat along the Sonoma Coast. The traffic levels and accident rates are too low to merit one, and the region is too remote for efficient deployment of manpower. The CHP responds to accidents or other service calls on coastal roadways, but response times vary depending on where officers are and what else is happening at the time the call comes in.

State and County Park Rangers enforce park regulations which include vehicle parking, camping, and park use restrictions. They also render assistance and respond to emergencies on State and County park property.

Park Ranger staffing at State and County Parks on the Sonoma County coast in 2015 was as follows:

- (1) Bodega Bay Area Regional Parks (Doran and Westside Parks): 5 rangers
- (2) North Coast Regional Parks (Stillwater Cove and Gualala Point): 2 rangers
- (3) Salt Point State Park and Kruse Rhododendron Preserve, and Fort Ross State Historic Park (State): 3 rangers
- (4) Sonoma Coast State Beach, Armstrong State Reserve, and Austin Creek State Recreation Area (State): 7 rangers

New development on the coast will increase pressure for additional law enforcement protection by the County Sheriff and CHP. Residents in rural subdivisions often do not realize that urban emergency response times cannot be provided at isolated locations in rural areas, and become dissatisfied with the service levels. Even existing service levels cannot be maintained with an increase in service calls unless additional manpower is available.

Parking management is another law enforcement responsibility which may increase as a result of implementation of this Local Coastal Plan. Policies call for closing small or poorly located parking turnouts, prohibiting parallel parking along parts of State Highway 1, and enforcing parking restrictions. Only park rangers presently enforce parking restrictions, and their responsibility is limited to park lands. On peak weekends when park rangers are busiest with service calls and parking problems are greatest, parking enforcement receives low priority and little attention. The Sheriff and CHP currently do not enforce parking, since there is only one restricted parking area along Highway 1.

Acquisition and development of additional park land and public accessways, mandated by the California Coastal Act, will require increases in park rangers and other staff to maintain and operate them. The expected growth in park use will also cause an increase in ranger responsibilities. Law enforcement agencies are concerned about these expected increases in responsibilities. However, they have little recourse other than to request additional staff when service levels deteriorate. One option would be to pursue State funds for law enforcement services needed to patrol the new park land and public accessways.

7.1 GOALS, OBJECTIVES, AND POLICIES | LAW ENFORCEMENT SERVICES

Goal C-PF-6: Ensure that law enforcement services are provided to meet the future needs of Coastal Zone residents and visitors.

Objective C-PF-6.1: Improve law enforcement services to the Sonoma County coast, particularly patrolling State Highway 1, parks, and public accessways.

The following policies shall be used to achieve these objectives:

Policy C-PF-6a: Encourage an increase in traffic patrol of State Highway 1 through use of a CHP helicopter and any other feasible means. (EXISTING LCP REVISED)

8 SOLID WASTE MANAGEMENT SERVICES

The Sonoma County Waste Management Agency (SCWMA) is the joint powers authority of the nine incorporated cities (Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor) and the County of Sonoma, and this agency manages waste diversion throughout the County per AB 939. Along with standard waste diversion, the programs that SCWMA provides include household hazardous waste removal, composting, wood waste recycling, planning, and education.

Along the Sonoma County coast north of the Russian River/Jenner, solid waste collected by a licensed hauler is delivered to the Annapolis Transfer Station, from which it is transferred to the Central Disposal Site in Petaluma. Solid waste hauled by self-haul customers could be taken to the Annapolis Transfer Station or the Guerneville Transfer Station, from which it is transferred to the Central Disposal Site. On the coast south of the Russian River, solid waste collected by a licensed hauler is delivered to the Guerneville Transfer Station or directly to the Central Disposal Site. Solid waste hauled by self-haul customers would likely be taken to the Guerneville Transfer Station and could be taken directly to the Central Disposal Site. In 2013, the County entered into a long-term (effective April 1, 2015 for a 20-year term) Master Operations Agreement with Republic Services of Sonoma County, Inc. for operations of the Central Disposal Site and the County's solid waste transfer stations (Sonoma, Healdsburg, Guerneville, and Annapolis).

State law requires cities and/or counties to prepare a Countywide Integrated Waste Management Plan (CoIWMP) to identify and reserve sites for solid waste facilities, and ensure that land uses adjacent to

or near solid waste facilities are compatible with those facilities. Sonoma County, in cooperation with the cities in the County, prepared a CoIWMP in 1994. The most recent amendment to the CoIWMP was approved by the California Department of Resources Recycling and Recovery in May 2010.

The CoIWMP is the principal planning document for solid waste management in the County. Solid waste management facilities located in unincorporated areas, including landfills and transfer stations, are designated in the Land Use Element. Issues pertaining to solid waste management addressed in the CoIWMP include:

- (1) The need to temporarily close the Central Landfill and transition from a landfill based system to an outhaul based system (truck and/or rail transport) due to the expense and regulatory uncertainty associated with expanding the Central Landfill and securing flow-control agreements from the cities.
- (2) The need to accommodate the sludge disposal needs of wastewater treatment facilities serving both cities and unincorporated areas; and other types of waste matter, including compostable yard waste and organic matter, recyclable inorganic products (plastic, glass, metal, etc.) and non-compostable organic matter, by treating them as a resource rather than a waste product.
- (3) Reduction of the quantity of waste deposited in landfills by 50% or greater after 2000, based on waste generation rates of 1990.

The CoIWMP contains goals, policies, and short, medium, and long-range objectives, together with measures designed to guide solid waste management and disposal actions of the County and other applicable agencies. The Public Facilities and Services Element is intended to complement the adopted policies of the CoIWMP and any subsequent amendments thereto.

8.1 GOALS, OBJECTIVES, AND POLICIES | SOLID WASTE

Goal C-PF-7: Ensure that solid waste management facilities are sited to minimize adverse impacts on the Coastal Zone environment.

Objective C-PF-7.1: Locate solid waste management facilities to minimize adverse effects on natural and scenic resources.

The following policies, in addition to those in the Open Space and Resource Conservation Element, shall be used to achieve this objective:

Policy C-PF-7a: The application of biosolids generated in Sonoma County to agricultural lands in the County shall be allowed if it meets all of the following criteria. In the event that one or more of the criteria are not met, a Local Coastal Plan amendment shall be required.

- (1) The project's primary purpose is to enhance agricultural use. The rate of biosolid application shall be designed to enhance existing agricultural operations or designed in conjunction with a detailed management plan for proposed agricultural use.
- (2) The rate of biosolid application shall not result in any future limitations on the potential agricultural use of the area of application.

- (3) The project shall be subject to the approval of the applicable Regional Water Quality Control Board.
- (4) A use permit and, if necessary, a solid waste facility permit, shall be obtained.
- (5) A permit shall be obtained from the local solid waste enforcement agency.
- (6) The biosolids to be applied to agricultural lands shall be limited to those originating from an approved Sonoma County biosolids source.
- (7) The project shall include provisions for periodic review and evaluations of long-term impacts on soils, water, and agricultural production.
- (8) The site for biosolids application does not contain and is at least 100 feet from wetlands and other ESHAs.

In the event that the biosolids generated in the County is inadequate to address the agricultural demand for biosolids, the County may consider site specific Local Coastal Plan text amendments for the application of biosolids generated outside of the County, provided that the above criteria 1-5 and 7-8 are met and that:

- (1) The applicant can satisfy local public health officials that the method of production and content of the biosolids will not be detrimental to public health.
- (2) The applicant demonstrates that traffic and other impacts of the proposed project are mitigated to the maximum extent feasible.

(3) The applicant demonstrates that there are no alternative sources of biosolids in the County.

(3)(4) The applicant demonstrates as part of the analysis that solid waste management facilities will not have a significant adverse effect on coastal resources and will mitigate against any potential impacts. (GP2020)

9 PUBLIC UTILITIES AND TELECOMMUNICATIONS

The Land Use Element designates existing public utilities as Public/Quasi-Public. Public utilities such as electricity, natural gas, broadband, and telephone services, require transmission and maintenance facilities that may affect natural and scenic resources or neighborhood character. The need for expanded and improved telecommunications services such as fiber and wireless broadband on the Sonoma County coast has been identified by residents and businesses.

In October 2006, Governor Schwarzenegger signed Executive Order S-23-06 to streamline approvals for building broadband networks; ensure all government agencies are using the best technologies to serve the people; and create a broadband task force that lets experts from government and business work together to identify and eliminate obstacles to making broadband internet access ubiquitous in the

State. One of the issues raised at the Local Coastal Plan public workshops at The Sea Ranch and Jenner in May and June 2013 is the need for expansion and improvement of telecommunications services, including wireless broadband, on the Sonoma and Mendocino county coasts to provide access to emergency, medical, and educational services; improve the economy; and close the gap in the fiber-optic cable between AT&T on the North Coast and Verizon on the South Coast. In June 2015 The Sea Ranch filed an application for a Coastal Permit and Use Permit to build 59.8 miles of fiber optic telecommunications network, which is now in service providing broadband to residents of The Sea Ranch.

Expansion and improvement of broadband on the Sonoma County coast would close the “digital divide” by providing equality of opportunity for rural residents and businesses to have the same information and resources provided online to urban residents; boost the coast economy by allowing large, small, and home-based businesses to have a more level playing field from which to compete for a fair share of the market; increase opportunities for education, training, and employment of residents; and save lives and improve healthcare by decreasing emergency response times and increasing opportunities for telemedicine (the remote diagnosis and treatment of patients by means of telecommunications technology).

The “Economic Development Strategy and Jobs Plan - November 2011” developed by the Sonoma County Economic Development Board includes “Strategic Objective 6 – Facilitate Broadband Development in Rural Parts of the County”. The project and associated action steps are described in the “Economic Development Strategy and Jobs Plan” as follows:

Access to broadband is becoming increasingly important to rural areas of the county, particularly for businesses such as hospitality, wine, agriculture, food processing and professional services. State funding has become available for consortia to participate in consortiums to develop three year plans for broadband deployment (training, promotion, and adoption) and there soon may be funds available for “middle mile” and “last mile” deployment. The County has joined with the North Bay North Coast Broadband Consortium (NBNBC) in their planning efforts, and should position itself to seek funds for middle and last mile broadband deployment locally, as well as be prepared for funds that may arise for further service. Extending broadband services into unserved and underserved areas would greatly benefit the current population of tourist destination wineries, creative professionals, and others, and provide opportunities as infrastructure needed for economic development is made available.

9.1 GOALS, OBJECTIVES, AND POLICIES | PUBLIC UTILITIES AND TELECOMMUNICATIONS

Goal C-PF-8: Provide access to broadband telecommunications throughout the Coastal Zone. (New)

Objective C-PF-8.1: Extend broadband services into unserved and underserved areas in the Coastal Zone to serve residents and tourists, and reduce greenhouse gas emissions by making telecommuting possible throughout the Coastal Zone. (NEW)

The following policy shall be used to achieve this objective:

Policy C-PF-8a: Support efforts of the Economic Development Board through its Access Sonoma Broadband division to coordinate countywide broadband planning and broadband deployment, grant application development, and outreach.

Commented [A19]: Consider including a policy encouraging research to identify underserved broadband areas.

10 YOUTH AND FAMILY SERVICES

The traditional focus of the Local Coastal Plan has been on land use, housing, open space, and other land use related matters. While youth, family, and other social services are not typically considered in this context, many local jurisdictions are beginning to acknowledge the valuable contribution that these services make to a community's quality of life. Issues such as housing, recreation, and child care have a direct link to land use and applicable policies have been developed and are presented in this section. Other issues, such as neighborhood security, youth participation in government, child abuse, drug and alcohol prevention, etc. are not as directly related to land use but, nonetheless, Sonoma County recognizes the importance of these issues and will continue to solicit Federal and State funding to address a full range of health and human service programs designed to create an environment where the County's children, youth and families, senior citizens, and persons with disabilities live in secure and healthy communities. The County would continue to support programs intended to address such significant issues as the prevention of child abuse, youth violence, and drug and alcohol use by minors; as well as those programs which enhance diversity, promote parent education and support services, affordable child care, youth recreation programs, neighborhood revitalization, school based health services, and programs which provide for the needs of low income seniors and disabled persons.

10.1 GOALS, OBJECTIVES, AND POLICIES | YOUTH AND FAMILY SERVICES

Goal C-PF-9: Provide a full range of health and human services to create secure and healthy communities.

Objective C-PF-9.1: Promote living conditions in homes and neighborhoods that support safety and security for residents of unincorporated areas.

Objective C-PF-9.2: Encourage the development of quality child care facilities, including large and small family child care homes, and public and private daycare centers, in order to provide a wide range of alternatives that meet the diverse needs of children and parents.

Objective C-PF-9.3: Foster a safe living environment that encourages independence, promotes opportunities for socialization, and facilitates the creation of adequate and affordable housing options for seniors and persons with disabilities that consider all levels of care, including independent living, assisted living, board and care, skilled nursing facilities, and day care options.

The following policies shall be used to achieve these objectives:

Policy C-PF-9a: Public spaces shall be designed to reflect the needs of children, youth, families, seniors, and persons with disabilities; and to protect their safety. In designing park and recreational facilities, recognize that accessibility will vary depending on the location and purpose of the facility, consistent with State and Federal guidelines. (GP2020)

Policy C-PF-9b: Consider the potential negative impacts of proposed projects involving the selling or serving of alcohol or tobacco products or any other controlled substance of a similar nature. When reviewing new proposals, consider the site's proximity to other such uses and to youth serving facilities, and consider denial of Use Permit applications that would result in negative impacts. (GP2020)

Policy C-PF-9c: Encourage and support the availability of sites for community based health services, including school based health services and facilities. (GP2020)

Policy C-PF-9d: Encourage and support the availability of sites for alcohol, drug, and mental health treatment; as well as housing for persons receiving such treatment. (GP2020)

Policy C-PF-9e: Encourage opportunities for safe physical activity as an important component in the design and development of parks and public spaces. (GP2020)

Policy C-PF-9f: Child care facilities shall be allowed in all land use designations and encouraged in underserved areas. (GP2020)

Policy C-PF-9g: Child care facilities shall be allowed in new housing or office/industrial developments, and required in large projects where a legal nexus between the new development and the need for childcare can be established. (GP2020)

Policy C-PF-9h: Consider the needs of youth in transportation planning. Seek youth participation in such decisions. (GP2020)

Policy C-PF-9i: New housing and public facilities which provide youth, family, and senior services shall be sited near transit stops when feasible. (GP2020)

Policy C-PF-9j: Consider the needs and limitations of senior citizens and persons with disabilities when planning for public transit routes and equipment. (GP2020)

Policy C-PF-9k: Consistent with the Land Use Element, provide seniors and persons with disabilities with access to affordable housing by continuing to assist in the planning and construction of such housing. (GP2020)

II IMPLEMENTATION PROGRAMS

II.1 PUBLIC FACILITIES AND SERVICES PROGRAMS

Program C-PF-1: Work with the County Service Areas and Special Districts to provide local parks and recreation, public education, fire and emergency medical, law enforcement, solid waste management, and public utilities facilities and services. (GP2020)

Program C-PF-2: Develop and implement programs that include obtaining grants for supporting and assisting communities in upgrading failing OWTs or developing on-site wastewater maintenance and management districts, community leachfields, or community wastewater treatment systems. (GP2020)

Program C-PF-3: Consider development of on-site wastewater maintenance and management districts in areas with OWTs problems. (GP2020)

Program C-PF-4: Where there is an unmet need for local park facilities in an area, and County Regional Parks does not have plans for facilities in the area, encourage the existing or formation of new County Service Areas or other Special Districts to meet the need, if economically feasible. (GP2020)

Program C-PF-5: Establish an adequate and reliable source of funding for fire protection agencies that would provide for adequate staffing, adequate volunteer support, and purchasing and maintaining modern fire equipment. Consider new or amended impact fees for new subdivisions or development as a means of funding improved fire protection services and facilities in the Coastal Zone. (GP2020 REVISED)

Program C-PF-6: Support establishment of a regional fire protection district that provides adequate and reliable sources of funding for fire protection services. (NEW)

Program C-PF-7: Support the work of the County Fire Services Advisory Committee and its rural firefighting network assessment. Prepare a Fire Services Master Plan for urban and rural areas in cooperation with the State and other fire service agencies. The Master Plan shall be incorporated into the Local Coastal Plan. The minimum contents necessary for an adequate Master Plan are:

- (1) A statement of objectives, policies, and programs.
- (2) A forecast of growth.
- (3) Projected fire protection and emergency medical service needs.
- (4) A level of service assessment.

- (5) A discussion of fire regulations and policies for “defensible space” consistent with California Coastal Act sections applicable to Environmentally Sensitive Habitat Areas (ESHAs). (GP2020)

Program C-PF-8: Consider streamlining zoning regulations, for which a Local Coastal Plan Amendment would be required, and reducing fees for large family child care homes and day care centers. Cooperate with the Sonoma County Child Care Planning Council and non-governmental organizations in creating a uniform and simplified review process for childcare facilities. (GP2020)

Program C-PF-9: Consider installing charging stations for, electric, or other alternative fuel vehicles at public facilities and other visitor serving uses. (NEW)

Program C-PF-10: Consider the following and develop improvement plans where appropriate:

- (1) A community leachfield at Duncans Mills.
- (2) Relocation of the OWTs at Bridgehaven and Rancho del Paradiso.
- (3) A community wastewater collection and treatment system or a package wastewater treatment plant at Jenner.
- (4) A community wastewater collection and treatment system or a package wastewater treatment plant at Carmet.

At Salmon Creek and Wrights Beach: construction of a package wastewater treatment plant, relocation of the OWTs away from houses, or construction of a community leachfield. (NEW)

11.2 OTHER INITIATIVES

Other Initiative C-PF-1: Consider preparation on a regular basis of a total water supply and use budget for the Sonoma County Coastal Zone to aid in land use planning and decision-making. Encourage Coastal Zone water service providers to prepare individual water supply and use budgets on a regular basis to provide the necessary information for the total water supply and use budget. (NEW)

Other Initiative C-PF-2: Work with Community Service Districts, Park & Recreation Districts, and School Districts to meet local community park needs. (GP2020)

Other Initiative C-PF-3: Assist school districts in estimating the amount, rate, and location of projected population growth in their attendance areas. (GP2020)

Other Initiative C-PF-4: Promote State funding of costs for patrolling new parks and public accessways which are mandated by the California Coastal Act. (EXISTING LCP REVISED)

Commented [A20]: This seems like an important initiative for the future management of water in Sonoma County, especially considering future impacts on water including, but not limited to: loss of groundwater to salt water intrusion, potential droughts, increased water usage for increased development, fire management, etc. Consider including this as an actionable policy instead of a “other initiative”.

Other Initiative C-PF-5: Encourage the providers of telecommunication services, including broadband, to expand and improve services to the Sonoma County coast, [based on areas of identified need](#), including closure of the gap in existing fiber-optic cable between the north and south coast. (NEW)

Other Initiative C-PF-6: Support the Sonoma County Economic Development Board and the Broadband Alliance of Mendocino County in their efforts to expand and improve wireless broadband services on the Sonoma and Mendocino County coasts. (NEW)

Other Initiative C-PF-7: Encourage schools to offer recreation programs and before-school and after-school care whenever possible. (GP2020)

Other Initiative C-PF-8: Collaborate with stakeholders to establish long-term goals for improving the living conditions of children, youth, families, senior citizens, and persons with disabilities; and continue to monitor available data regarding their status. (GP2020)

Other Initiative C-PF-9: Work with school districts to provide safe walking and bicycle paths around schools and neighborhoods. (GP2020)

Figure C-PF-1a. School Districts – SubAreas 1 - 3
(11x17)

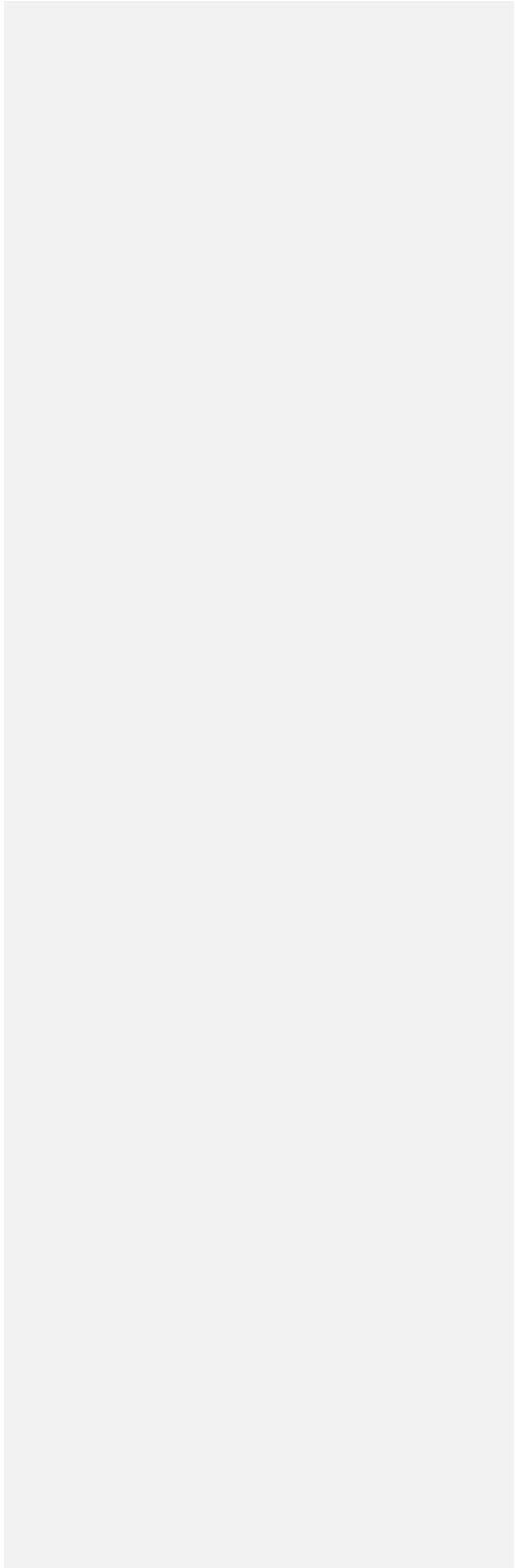


Figure C-PF-1b. School Districts – SubAreas 4 - 6
(11x17)

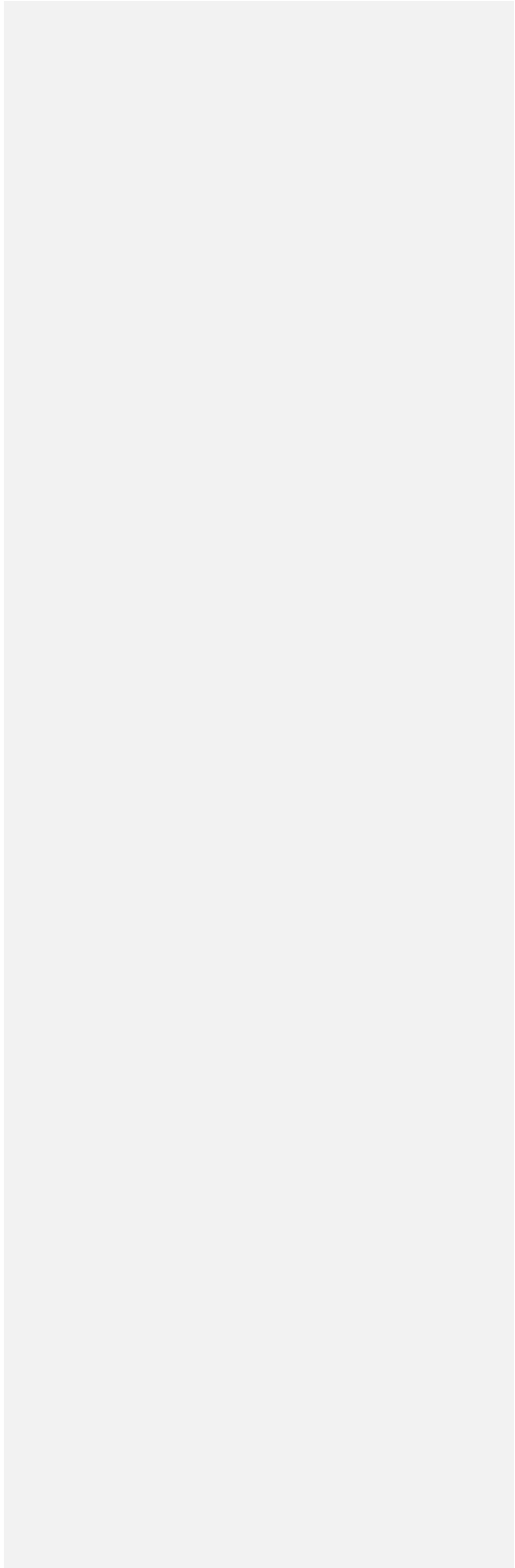


Figure C-PF-1c. School Districts – SubAreas 7 - 10

(11x17)

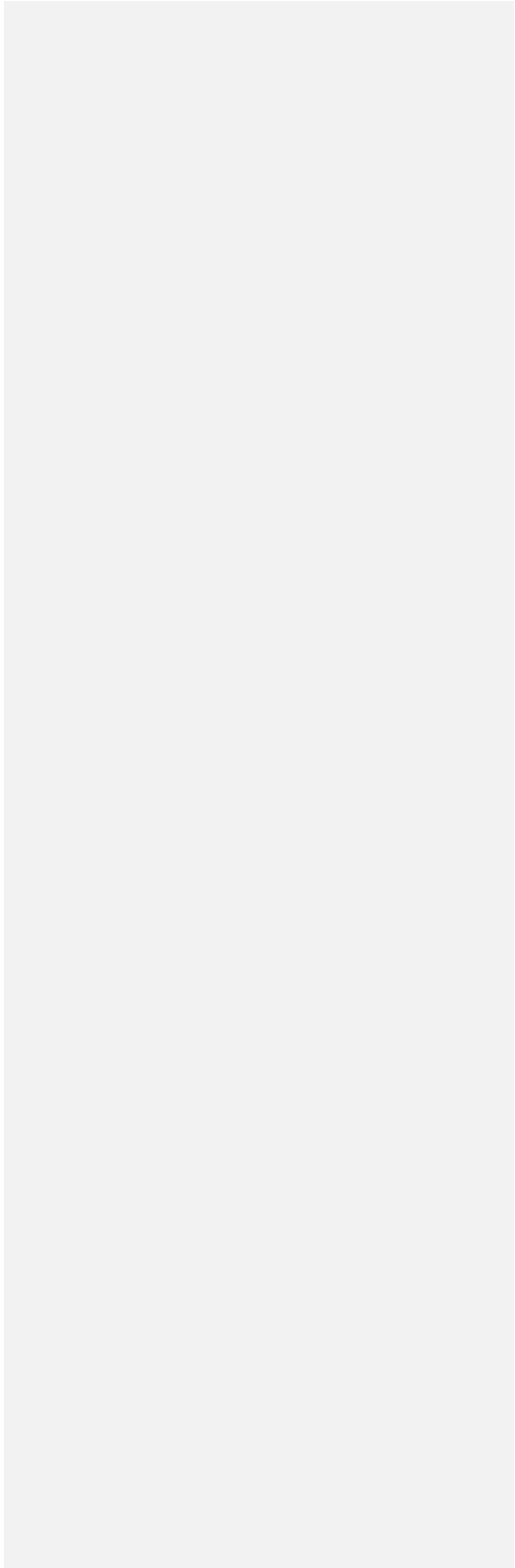


Figure C-PF-2a. Fire Districts – SubAreas 1 - 3
(11x17)

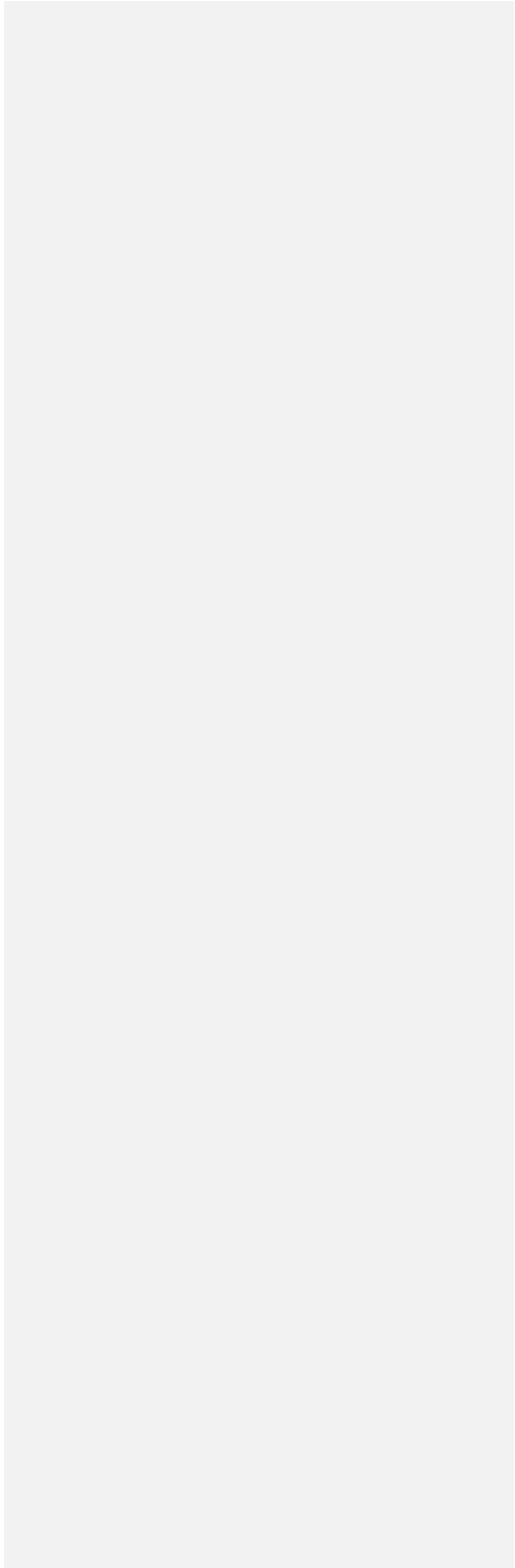


Figure C-PF-2b. Fire Districts – SubAreas 4 - 6
(11x17)

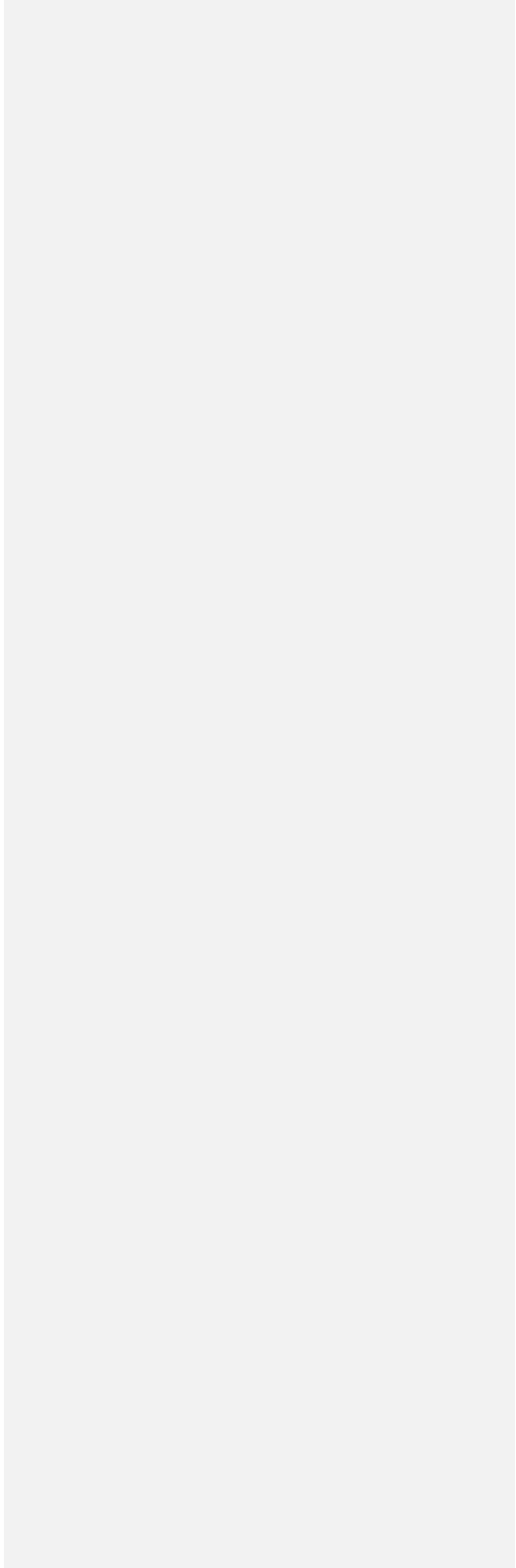
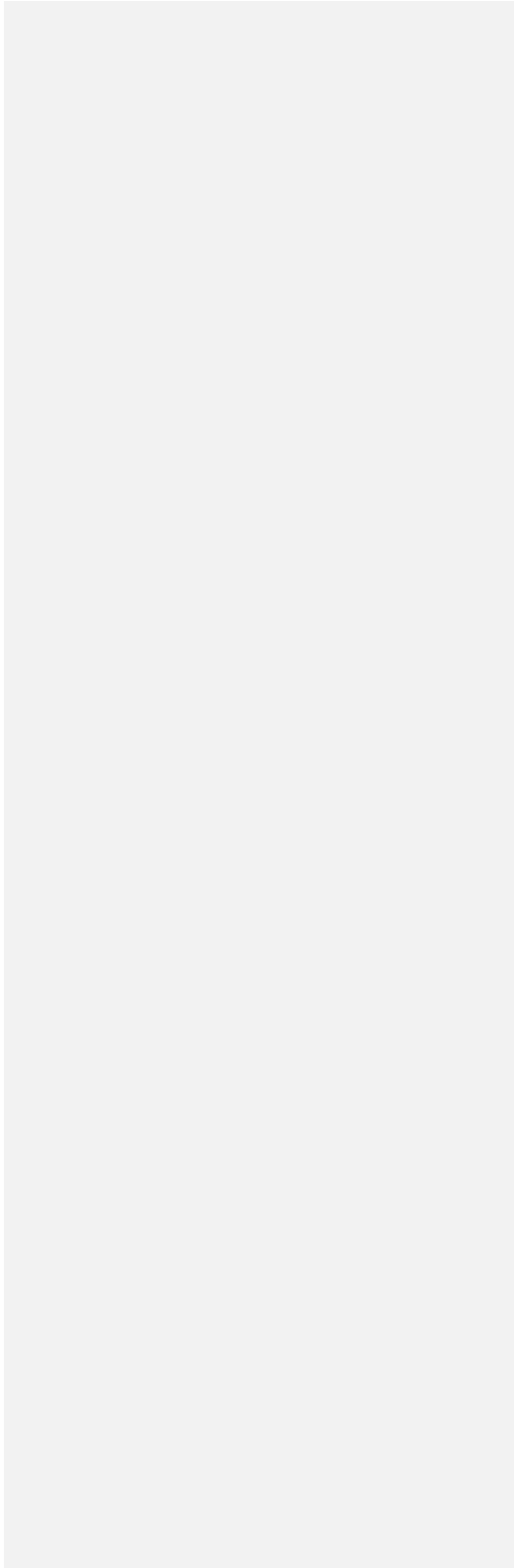


Figure C-PF-2c. Fire Districts – SubAreas 7 - 10
(11x17)



CALIFORNIA COASTAL COMMISSION

NORTH CENTRAL COAST DISTRICT
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
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November 15, 2021

County of Sonoma
Planning Department
Attn: Cecily Condon, Gary Helfrich
2550 Ventura Ave.
Santa Rosa, CA 95403

**Subject: County of Sonoma Draft Local Coastal Program Land Use Plan Update:
Cultural Resources Chapter**

Dear Mr. Helfrich:

Thank you for the opportunity to review and comment on the County's proposed update to the Local Coastal Program (LCP) Land Use Plan (LUP). We want to thank the staff involved in this update for their hard work, and for coordinating with us during this process. In our experience, this type of early coordination helps to ensure a smoother LCP certification process, including streamlining review and resolution of issues upon submittal to the Coastal Commission. The comments and recommendations below summarize the overarching feedback on Chapter 10: Cultural Resources.

- 1. Discovery and Monitoring of Sensitive Sites.** Policy C-CH-1d requires studies for development with new ground disturbance, however this chapter lacks policies for monitoring if the study itself identifies archeological or paleontological resources. In addition, there is no policy for if archeological or paleontological resources are encountered during the course of development. We would recommend adding these two policies below in order to ensure protection of these important resources. Sample language is included below from the Certified 2021 Half Moon Bay LCP:

8-10. Archaeological and Paleontological Resources Monitoring. *Require, where a pre-development survey identifies the potential to affect known or newly discovered archaeological, Native American, or paleontological resources, the submittal of a monitoring and reporting plan that identifies methods and describes the procedures for selecting archeological and Native American monitors and procedures that will be followed if additional or unexpected resources are encountered during development of the site. Procedures may include, but are not limited to, provisions for cessation of all grading and construction activities in the area of the discovery that has any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options to allow for significance testing, additional investigation and mitigation.*

8-11. Discovery of Archaeological and Paleontological Resources. *Regardless of site location, require all development to halt work if subsurface archaeological or paleontological resources are discovered during construction. The developer shall notify*

the City and retain a qualified professional to identify any necessary handling and notification procedures and mitigation measures. Work shall not resume until these measures have been reviewed and approved by the City and all appropriate entities have been notified. Consult with the appropriate Native American tribe(s) on if and how to rebury any discovered tribal resources

The list above is intended as a complement to the in-line edits and comments provided for the Cultural Resources Element, but is not exhaustive of every comment and edit included. Therefore, edits and comments in the chapter itself should be treated as the primary source of feedback, with this letter serving as guidance containing some of the major themes of our recommendations. We anticipate discussing these issues in more detail during staff-to-staff coordination meetings with Sonoma County staff:

Again, we thank you for your efforts to date on the update to the LUP, and we look forward to continued coordination toward this end.

Sincerely,

Peter Benham

Peter Benham
Coastal Planner
North Central Coast District Office
California Coastal Commission

Cultural and Historic Resources Element: Table of

Cultural and Historic Resources Element	1
1 Introduction	1
1.1 Purpose.....	1
1.2 Goals, Objectives, and Policies Cultural and Historic Resource Protection	2

Commented [A1]: Please also include a policy the process on if these is discovery of archaeological or paleontological resources. Sample language from the Half Moon Bay Certified LCP:

Discovery of Archaeological and Paleontological Resources. Regardless of site location, require all development to halt work if subsurface archaeological or paleontological resources are discovered during construction. The developer shall notify the City and retain a qualified professional to identify any necessary handling and notification procedures and mitigation measures. Work shall not resume until these measures have been reviewed and approved by the City and all appropriate entities have been notified. Consult with the appropriate Native American tribe(s) on appropriate avoidance and mitigation measures."

Cultural and Historic Resources Element

I INTRODUCTION

I.1 PURPOSE

The Sonoma County Coastal Zone has a rich cultural history and contains significant archaeological and paleontological resources as well as historic structures and sites. These resources serve important social, commercial, recreational, and educational roles in the community while evoking the unique heritage of the Sonoma Coast.

This element provides policies for protection and enhancement of Sonoma County cultural and historic resources within the Coastal Zone.

"Cultural resources" refers collectively ~~is used~~ to archaeological and paleontological resources, including Native American cultural and sacred sites, tribal cultural resources, artifacts, and remains. In addition "Tribal cultural resources" includes but is not limited to viewscapes, living vegetation, and species used for cultural practices and subsistence.

Commented [A2]: Please include relevant coastal act policy Section 30244 "Archaeological or paleontological resources"

Commented [A3]: Encourage County to reach out to the Tribes and Nations with ancestral ties to these lands and waters, if it has not already done so. The Tribes should have an opportunity to look at this chapter before it is approved to ensure there are no adverse effects to their rights or resources (some of which may/not be specifically outlined in treaties or other laws/regulations).

Commented [A4]: Please also note the importance of those resources to Tribes, not just the general Sonoma County community. Cultural resources are tied to the identity and practices of tribal peoples, and their relationship to these resources is much different than the relationship the general non-native community has to them.

“Historic resources” refers to structures, sites and artifacts associated with colonization, settlement, and development of the Coastal Zone. Historic resources are generally structures, sites and artifacts associated with non-Native American cultures during and after the Russian and Spanish colonial periods, but these sites may also contain cultural resources.

Commented [A5]: Consider adding background on the cultural context (Tribes that inhabit/inhabited the coastal zone), as well as a more in-depth description of what archeological and paleontological resources might consist of.

1.2 GOALS, OBJECTIVES, AND POLICIES | CULTURAL AND HISTORIC RESOURCE PROTECTION

GOAL C-CH-1: Protect and preserve historical, archaeological and paleontological resources, including Native American cultural and sacred sites, tribal cultural resources, artifacts, and remains.

Objective C-CH-1.1: Establish and maintain a respectful and effective means of communicating and consulting with Tribes with regard to identification, protection, and preservation of these resources.

Objective C-CH-1.2: Require coastal development projects to identify, preserve, and protect Historic and Native American cultural resources, sacred sites, places, features, and objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites. Ensure appropriate treatment of Native American and other human remains discovered during the project.

Commented [A6]: In line with identification and preservation, there should be a policy that requires some sort of reporting when new cultural resources are discovered.

Sample Language from the certified 2021 HMB LCP states:

Policy C-CH-1a: Refer applications for coastal development permits resulting in new ground disturbance, including but not limited to building, grading, or demolition projects, to the Northwest Information Center at Sonoma State University to determine if the project site may contain archaeological or historic resources. If a site is likely to have archaeological, cultural or tribal resources, a field survey and an archaeological resources report that contains the results of the survey and includes appropriate mitigation measures shall be required. If the site is likely to have historic resources, a field survey and an historic resources report that contains an evaluation of whether the historic resources are significant under state and federal criteria shall be required. (EXISTING LCP REVISED)

“**Cultural Resources Reporting.** Require all known and newly discovered cultural resources to be reported to the appropriate tribe or tribal community, agency, or organization. These may include but are not limited to the California Native American Heritage Commission, the State Historical Resources Commission, or the California Office of Historic Preservation.”

Commented [A7]: This policy seems to conflict with policy C-CH-1d. Is there a difference btw a field survey and study? For consistency, we suggest placing policy C-CH-1a and C-CH-1d next to each other as they deal with related issues.

Policy C-CH-1b: Refer applications for development permits that involve the removal, demolition, or alteration of a building, structure, site, cemetery, feature, or object identified in a Historic Resource Survey to the Sonoma County Landmarks Commission for review and mitigation, with the exception of such projects within The Sea Ranch, which shall be referred to the Sea Ranch Design Committee. Measures for removal or demolition may include reuse, relocation, preparation of as-built drawings, and photo-documentation. (GP2020)

Commented [A8]: Does this center contain adequate information and staffing to determine this? Do they contain all the existing information on these resources in the coastal zone? Does this center have any tribal expertise? If not, is there another organization that has tribal expertise? Consider referring CDP that result in new ground disturbance to the State Historic Preservation Office and/or Tribal Historic Preservation Offices as well.

Policy C-CH-1c: State law regarding tribal consultation shall be considered the minimum standard of review for Local Coastal Program amendments, implementation of programs and initiatives, review of coastal development permits, and CEQA review and shall follow the principles found in Policy C-CH-1e. (GP2020 REVISED)

Commented [A9]: Please include an overview of the Northwest Information Center at Sonoma Center in the introduction.

Policy C-CH-1d: Development projects resulting in new ground disturbance, including but not limited to building, grading, or demolition projects shall provide a study prepared by a qualified professional evaluating historical, archaeological and paleontological resources, including Native American cultural and sacred sites, tribal cultural resources, artifacts, and remains. This policy may not apply to sites where an adequate study was previously prepared and is determined to adequately evaluate cultural and historic resources that may be affected by the project. Previous studies will be referred to Tribes for early and frequent comment and confirmation of adequacy. (NEW)

Policy C-CH-1e: To establish and maintain a respectful and effective means of communicating and consulting with Tribes the following principles shall be followed when evaluating coastal development projects: (NEW)

- (1) Communicate and consult with federally and non-federally recognized California Native American Tribes (Tribes) in a manner that is considerate and respectful. Seek tribal input regarding the identification of potential issues, possible means of addressing those issues, and appropriate actions, if any, to be taken by the County.
- (2) Assess the potential impact of proposed County actions on Tribal rights and interests and ensure, to the maximum extent feasible and required by law, that tribal concerns are considered before such actions are taken, such that impacts are avoided, minimized, or mitigated in conformity with Coastal Act and other applicable legal requirements.
- (3) Provide Tribes with meaningful opportunities to respond and participate in County decision-making processes that affect Tribal rights and Interests.
- (4) Acknowledge and respect both the confidential nature of information concerning cultural practices, traditions, beliefs, tribal histories, and Tribal lands, and legal protections of the confidentiality of certain tribal cultural information (e.g., Gov. Code §§ 6254(r), 6254.10, Pub. Res. Code § 21082.3(c)). The County will take all lawful and necessary steps to ensure confidential information provided by a Tribe is not disclosed without the prior written permission from the Tribe.
- (5) Encourage collaborative and cooperative relationships with Tribes in matters affecting coastal resources.
- (6) Acknowledge and seek ways to accommodate Tribes with limited financial and staffing resources, and staffing resources of the County and the California Coastal Commission to ensure effective communication and consultation, including joint consultation with the Coastal Commission Tribal Liaison staff.

Commented [A10]: This policy is a good start, but there should be a complementary policy that requires monitoring when a site is identified to have archaeological or paleontological resources. Example language from HMB certified LCP: In addition, consider including in the IP or appendix, standardized monitoring requirements for development projects like these.

Archaeological and Paleontological Resources Monitoring. Require, where a pre-development survey identifies the potential to affect known or newly discovered archaeological, Native American, or paleontological resources, the submittal of a monitoring and reporting plan that identifies methods and describes the procedures for selecting archeological and Native American monitors and procedures that will be followed if additional or unexpected resources are encountered during development of the site. Procedures may include, but are not limited to, provisions for cessation of all grading and construction activities in the area of the discovery that has any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options to allow for significance testing, additional investigation and mitigation.

Commented [A11]: Please clarify this language

Commented [A12]: Please be more specific here, how would tribes be incorporated in relevant county decision making processes?

- (7) Identify and recommend means to remove procedural impediments to working directly and effectively with Tribes.
- (8) Consultation should not be viewed as a one-time, one-meeting activity, but rather an iterative process.

Policy C-CH-1f: New development shall avoid impacts to cultural resources through siting and design measures to the extent feasible or required by law. Any unavoidable impacts, disturbance, or substantial adverse changes caused by development on cultural resources shall be mitigated through measures such as preservation in place or site sampling and salvage. The preferred and required alternatives for mitigating impacts, if feasible, are avoidance or preservation in place. Consult with affected Tribe(s) Native American representatives on appropriate alternatives. (EXISTING LCP REVISED)

Policy C-CH-1g: Continue to apply standard conditions requiring notification and evaluation in the event of the discovery of a burial or suspected human remains or other cultural resources, including consultation with the Most Likely Descendant as identified by the California Native American Heritage Commission, in the event that the remains are determined to be Native American. (GP2020 REVISED)

Commented [A13]: Sampling and salvage should also be coordinated with the appropriate Native American representatives (those with ancestral ties to the area are preferable). Often times these artifacts end up in museums rather than with the appropriate Tribe/Nation where they originated and with whom they belong. Therefore, there should be standards related to how the artifacts will be kept/taken care of, that should not be devised in coordination with the appropriate Tribe/Nation.

Commented [A14]: Consider adding a policy on the impacts of environmental hazards on cultural resources. Sample Language from the Half Moon Bay LUP:

Impacts of Environmental Hazards on Cultural Resources. Ensure that cultural resources are protected from the impacts of environmental hazards, including sea level rise. Work with the State Historic Preservation Officer to identify actions such as mitigation and monitoring programs to protect archaeological and paleontological resources including Native American artifacts at risk from hazards such as erosion, inundation, and sea level rise in a manner consistent with the policies of the LCP and other applicable provisions of the Coastal Act.