

Open Space and Resource Conservation Element:

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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)

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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, Hillside, 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.

Hillside. 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. Hillside 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.

Biotic Resources of the Coastal Zone

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 habitats.

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: Designate Environmentally Sensitive Habitat Areas and periodically update designations using credible data sources, including peer-reviewed publications, and recent California Coastal Commission decisions.

Objective C-OSRC-5.3: Establish standards, programs, and development guidelines to protect, restore, and enhance biotic resources, including designated Environmentally Sensitive Habitat Areas, 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:

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.

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 [A20]: There needs to be an explicit description of allowable uses and development standards for each habitat area including but not limited to wetlands, riparian areas, general ESHA

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. (GP 2020)

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. Typical wetland vegetation includes, but is not limited to: pickleweed, cordgrass, Jaumea, salt grass, rushes, bulrushes, sedges, cattails, tule, marsh rosemary, marsh grindelia. 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): Wetland extents shall be determined in conformance with the direction provided in **Appendix E-4**. 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)

Policy 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. Wetland buffers shall be developed in accordance with **Appendix E-3**; between 100 and 300 feet from

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 pag...

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 extents 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) ...

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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Figure C-OSRC-1a. Designated Scenic Resources Areas – SubArea 1 – The Sea Ranch North
(11x17)

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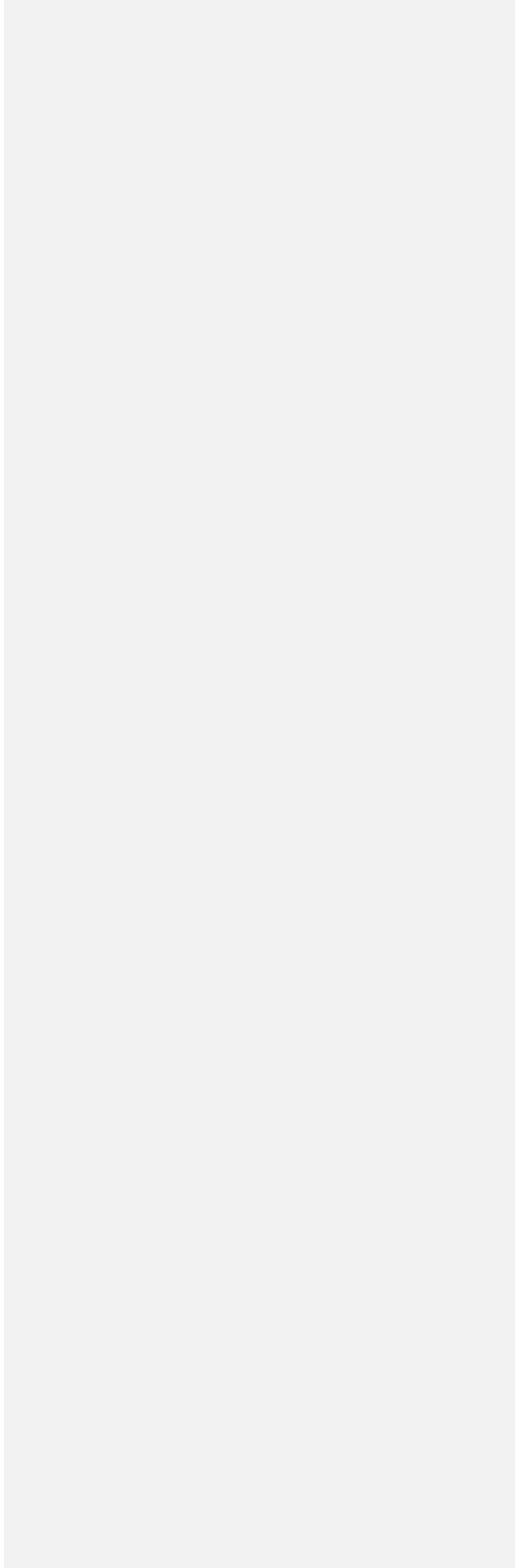


Figure C-OSRC-1b. Designated Scenic Resources Areas – SubArea 2 – The Sea Ranch South
(11x17)

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Figure C-OSRC-1c. Designated Scenic Resources Areas – SubArea 3 – Stewarts Point/Horseshoe Cove
(11x17)

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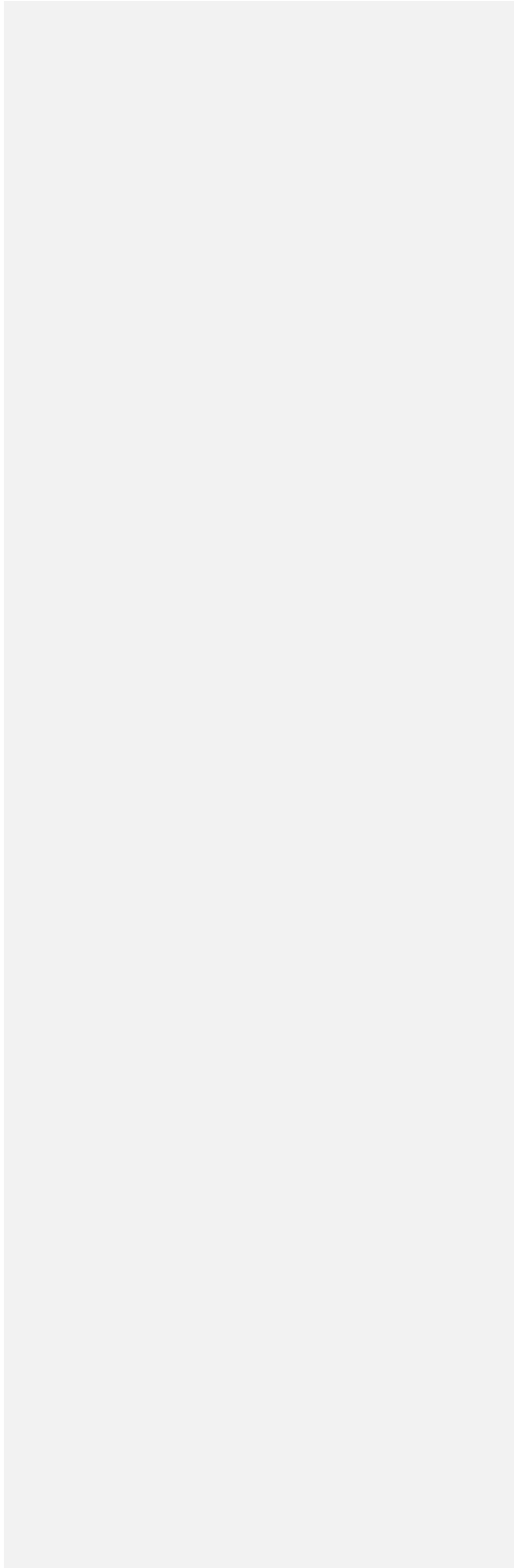


Figure C-OSRC-1d. Designated Scenic Resources Areas – SubArea 4 – Salt Point
(11x17)

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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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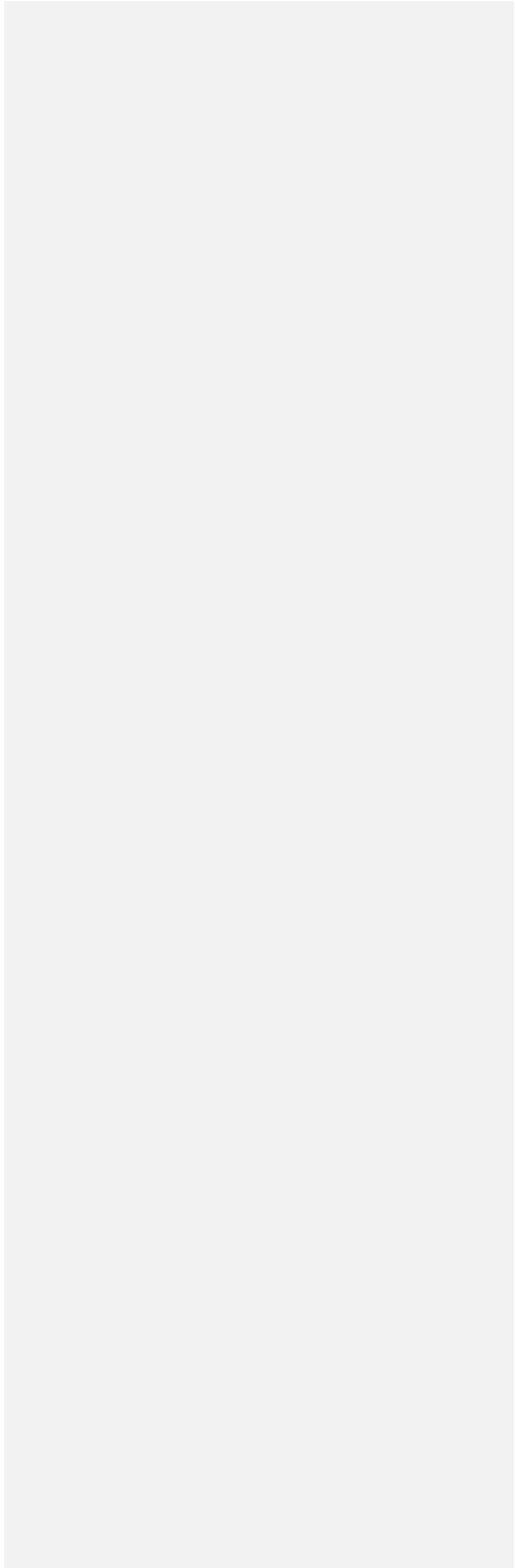


Figure C-OSRC-2b. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 2 – The Sea Ranch South
(11x17)

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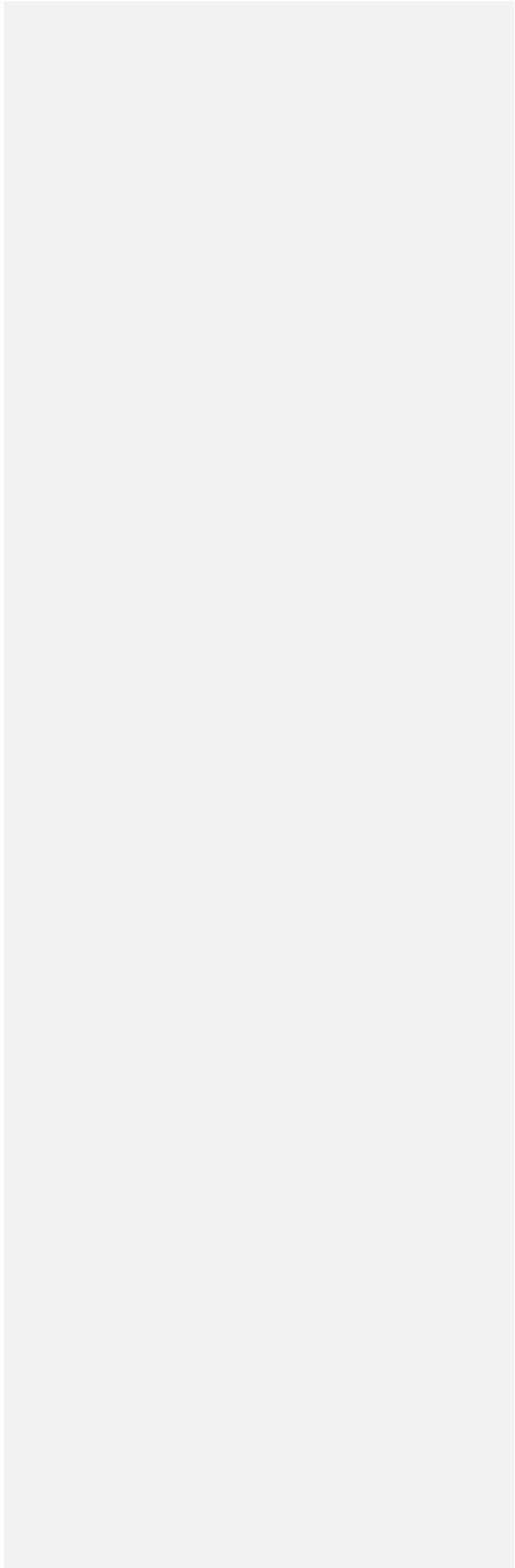


Figure C-OSRC-2c. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 3 – Stewarts Point/Horseshoe Cove

(11x17)

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Figure C-OSRC-2d. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 4 – Salt Point
(11x17)

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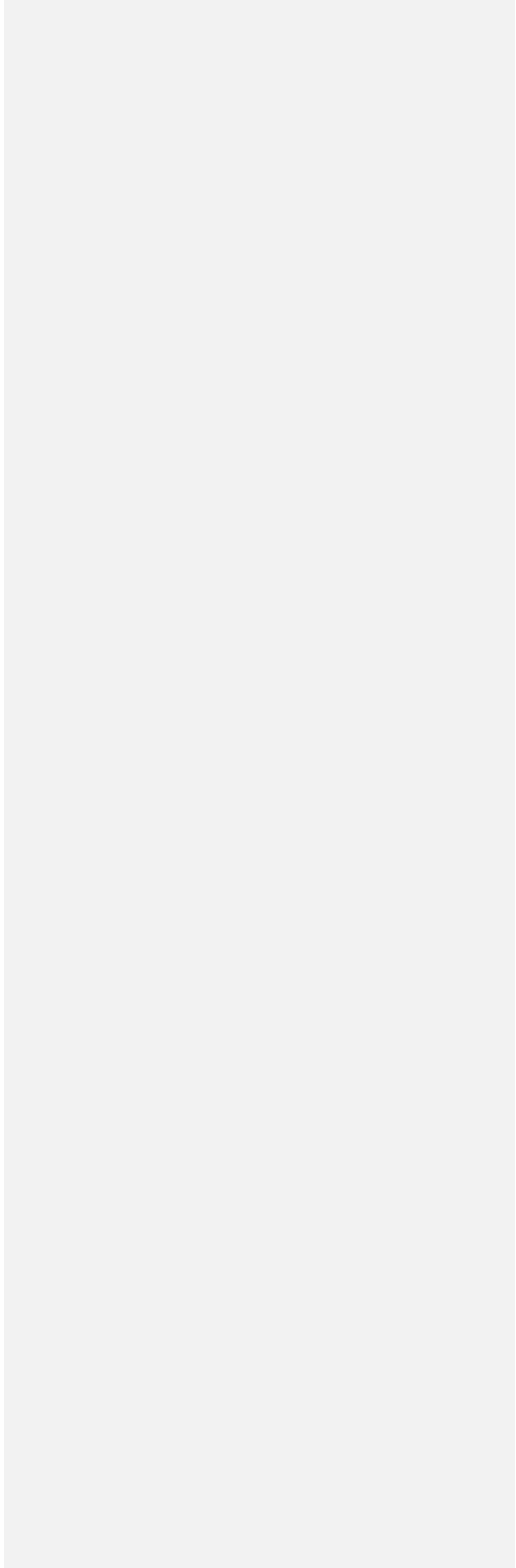


Figure C-OSRC-2e. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 5 – Timber Cove/Fort Ross
(11x17)

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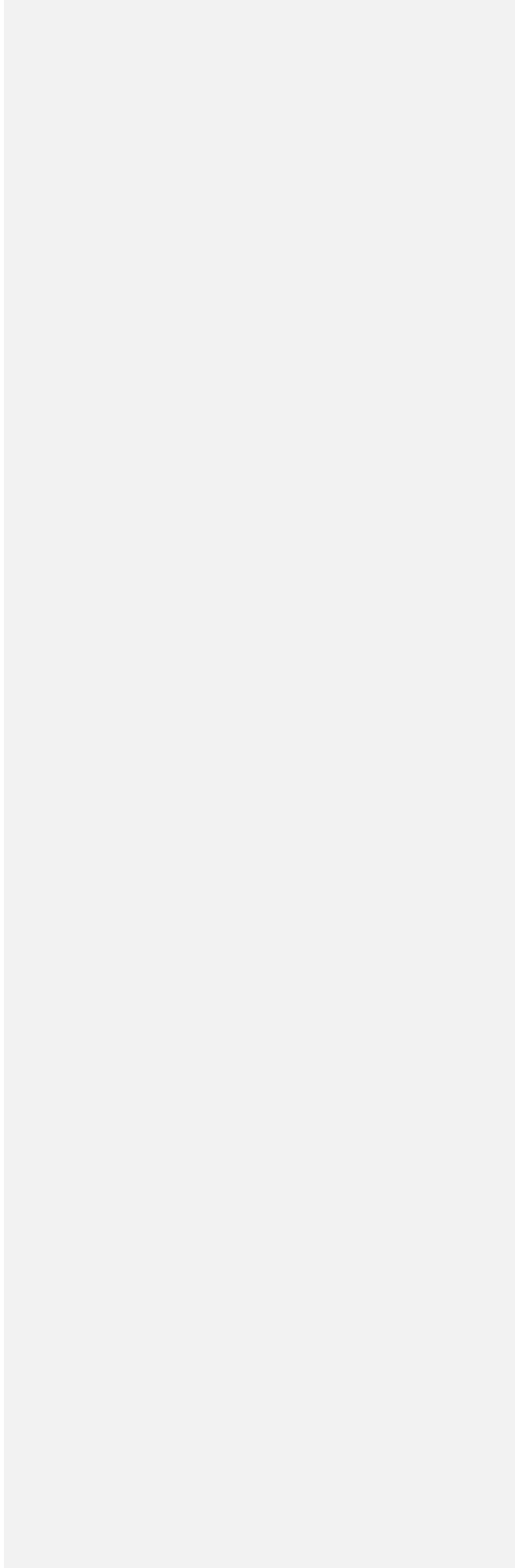


Figure C-OSRC-2f. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 6 – Highcliffs/Muniz-Jenner
(11x17)

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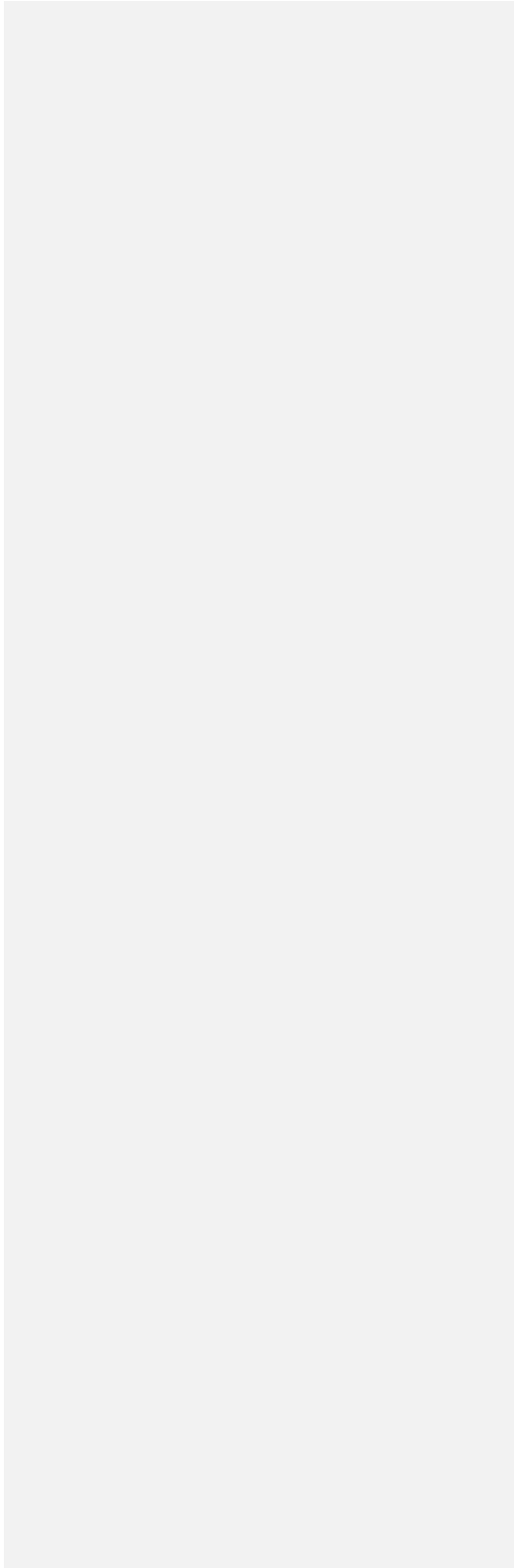


Figure C-OSRC-2g. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 7 – Duncans Mills
(11x17)

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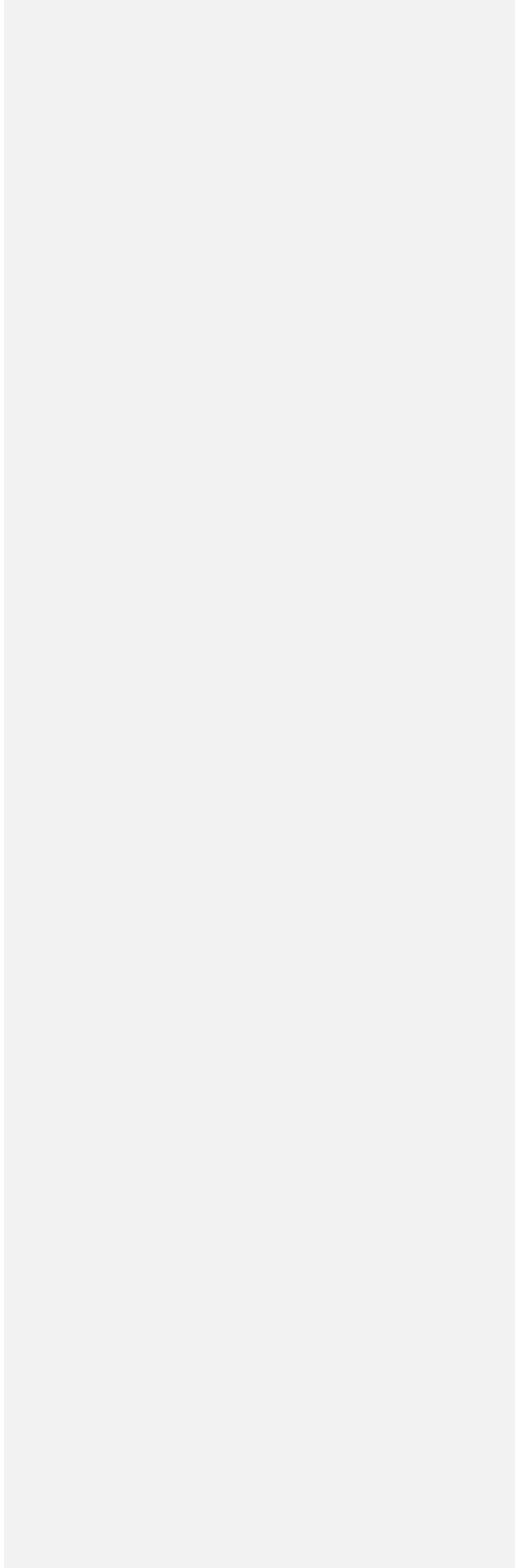


Figure C-OSRC-2h. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 8 – Pacific View/Willow Creek

(11x17)

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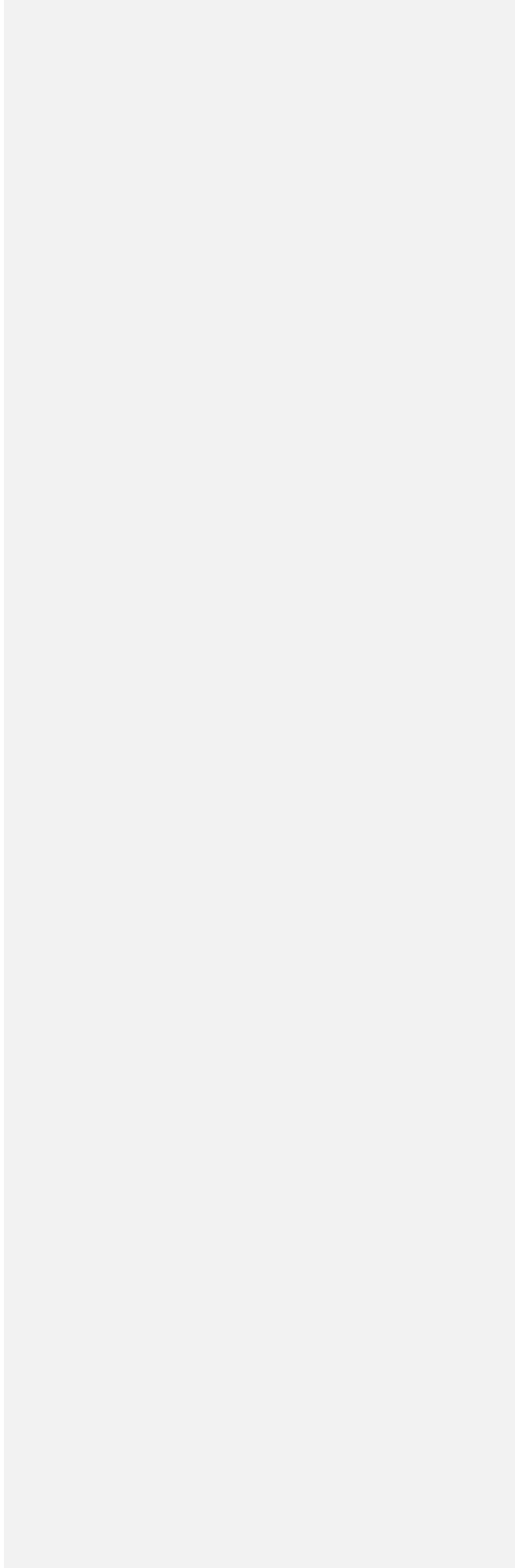


Figure C-OSRC-2i. Environmentally Sensitive Habitat Areas (ESHA) – SubArea 9 – State Beach/Bodega Bay

(11x17)

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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)

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