PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

OPEN SPACE AND RESOURCE CONSERVATION ELEMENT
September 2019

Local Coastal Program
Permit Sonoma

2550 Ventura Avenue
Santa Rosa, CA 95403

Adopted by Resolution No. 19-XXXX
of the Sonoma County Board of Supervisors
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OPEN SPACE AND RESOURCE CONSERVATION ELEMENT

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OPEN SPACE AND RESOURCE CONSERVATION ELEMENT

1. INTRODUCTION

1.1 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 Relationship to Other Elements

The Open Space and Resource Conservation Element is coordinated with the Public Safety, Public Facilities and Services, Agricultural Resources, Water Resources, Land Use, and Public Access Elements. Following are the relationships among the Local Coastal Plan Elements:

Open Space for Preservation of Natural Resources

(1) The Open Space and Resource Conservation Element includes policies that address preservation of scenic resources and biotic habitats, including riparian corridors; and protection of estuarine and marine environments during dredging operations. It also addresses air quality, energy, mineral, timber, and soil resources.

(2) The Water Resources Element includes policies that address preservation of both surface and groundwater resources, including water supply and water quality.

Open Space for Managed Production of Resources

(1) The Land Use Element establishes land use categories for agriculture and timber resources production.

(2) The Open Space and Resource Conservation Element includes policies that address management of mineral, timber, and energy resource production; and support facilities for the commercial fishing industry.

(3) The Agricultural Resources Element includes policies that address agricultural production.

(4) The Water Resources Element includes policies that address management of water resources.

Open Space for Outdoor Recreation

(1) The Public Access Element and Plan identify areas where recreational facilities are needed; and include policies that address public access to the Coast, needed improvements to parks and trails, bikeways, parking for recreational facilities, and recreational boating.

(2) The Open Space and Resource Conservation Element includes policies that address scenic resources.

(3) The Public Facilities and Services Element includes policies that address park and recreation services.

Open Space for Public Health and Safety

(1) The Land Use Element includes policies that limit development in hazardous areas, such as flood zones and areas with fire and geologic hazards.

(2) The Public Safety Element includes policies that protect the community from geologic hazards (including seismic hazards and coastal erosion), flood hazards, fire hazards, and hazardous materials.

(3) The Open Space and Resource Conservation Element includes policies that address air quality and soils and slope stability.

(4) The Water Resources Element includes policies that address water quality and quantity.

Open Space for the Protection of Archaeological and Historical Resources

(1) The Open Space and Resource Conservation Element includes policies that address preservation and protection of archaeological, historical, and tribal cultural resources. The policies address protection and preservation of significant archaeological, historical, and tribal cultural sites that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. It also addresses the confidentiality of records pertaining to such resources and provides for appropriate treatment of Native American and other human remains discovered during project site development.

1.3 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 has nine classifications 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 Landscape Units and Vista Points

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.

2.2.1 Scenic Landscape Units

The Sonoma County coast is a scenic resource vital to the County. Coastal bluffs, Bodega Bay, and other landscapes on the Coast are of special importance. Preservation of these scenic resources is important to the quality of life of Coast residents and the tourists and agricultural economy. Maintaining the openness of these areas provides important visual relief from developed areas. These landscapes have little capacity to absorb development without significant visual impact.

The single Scenic Landscape Unit designated on the County coast occupies portions of all Coast SubAreas (**Figures C-OSRC-1a-k**). The Scenic Landscape Unit includes three basic types of landscapes - the flat terraces south of the Russian River, the more hilly terraces from Fort Ross northward, and the coastal bluffs area between.

2.2.2 Major Views

Major Views are long views of unique visual interest, focus, or variety. Major Views are abundant on the Coast and include islands, rock headlands, coves, lagoons, estuaries, rivers, expansive beaches, white water, coastal hills, and historic settings. Multiple Major Views are located in each of the 10 Coast SubAreas (# of Major Views per SubArea) – The Sea Ranch North (14), The Sea Ranch South (20), Stewarts Point (15), Salt Point/Horseshoe Cove (16), Timber Cove/Fort Ross (25), High Cliffs/Muniz/Jenner (30), Duncan's Mills (6), Pacific View/Willow Creek (25), State Beach/Bodega Bay (28), and Valley Ford (13).

2.2.3 Vista Points

Vista Points are roadside areas suitable for parking which have exceptional views. The viewshed from a Vista Point is more sensitive than the viewshed from a Major View since the viewer is stopped and can take full advantage of the visual experience. Designated

Vista Points should be developed with safe ingress and egress, parking areas, interpretive signs, and restrooms where appropriate. 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: Continue to apply the Scenic Resources Combining Zoning District to all lands located within Scenic Landscape Units and views from Vista Points. **(GP2020)**

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. **(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. **(Existing LCP Revised)**

Policy C-OSRC-1d: Amendments to increase residential density in Scenic Landscape Units in excess of one unit per ten acres shall be avoided. The Local Coastal Plan Land Use Map may designate a lower density or larger minimum lot size. **(GP2020)**

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 shall be avoided. **(GP2020)**

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) Building envelopes shall be established for new residential structures so that they are located in the least visually sensitive areas, and height limitations shall be established if necessary to further 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 use areas where practical. **(GP2020 / Existing LCP Revised)**

2.3 Scenic Corridors

Many residents of Sonoma County highly value the beauty of the Sonoma County coast's many landscapes as viewed from scenic roadways. Motorists can travel from rural communities into forest or scrub covered hills and ridges, rolling dairy lands, scenic inland valleys, wetlands rich in wildlife, scrub and grass covered terraces, breath-taking coastal bluffs, dunes, and beaches.

Preserving these landscapes is important to preserving the character of the coast. 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.

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**). The Scenic Corridor is a band along State Highway 1, and other designated roadways in which new structures are subject to a setback of

30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the highway.

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: Highway-oriented billboards or offsite signs along Scenic Corridors shall be prohibited. **(GP2020 Revised)**

Policy C-OSRC-2f: Public works projects shall be designed to minimize damage and removal of trees along Scenic Corridors. 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)**

2.4 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.

A related issue is the effect of artificial night lighting on biological resources. Natural patterns of darkness and light are essential to the functioning of ecosystems. Artificially lighting the nighttime sky may have serious negative consequences for the ecosystem, termed ecological light pollution. Ecological light pollution includes direct glare, chronic increases in illumination, and temporary, unexpected fluctuations in lighting. Sources of ecological light pollution include sky glow, lighted structures (e.g., office buildings, communication towers, bridges), street lights, security lights, vehicle lights, fishing boats, flares on offshore hydrocarbon platforms, and lights on undersea research vessels.

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.

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. **(GP2020)**

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. **(New)**

Policy C-OSRC-3e: All exterior lighting shall be Dark Sky Compliant. 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)**

2.5 Community Character and Design

Sonoma County has adopted a basic framework of directing the majority of coastal growth into Urban Service Areas where public sewer and water are available, and where there is an existing pattern of urban-level development. This pattern of compact development and community-centered growth preserves the open space, agriculture, and natural resources that make Sonoma County unique and contribute to its valued quality of life and economic vitality. New development should enhance and retain the unique character of unincorporated communities. Successfully integrating community amenities such as attractive streets, safe bike and pedestrian access, attractive and long-lasting buildings, inviting public spaces, and important natural and cultural resources will make developed spaces more livable.

The Sonoma County coast is well known for its agrarian and small town atmosphere and its diverse and scenic natural resources, particularly its majestic coastline. In some cases, manmade structural features which have special cultural, historical, architectural, and aesthetic qualities have become as iconic as the natural features.

Regulating the design of certain types of new development in agricultural, rural, and resource areas will help to preserve the very qualities which attract tourism and enhance economic vitality. The character of the Sonoma Coast is diverse. As a result, developing design guidelines for the Coast must be done in a way that recognizes local character. Community design guidelines which avoid increased urban development in rural areas and promote integrating attractive new development with the surrounding landscape, will benefit not only property owners and developers but all who live in and visit the coast.

In the Coastal Zone development is concentrated in Urban Service Areas and Rural Communities, as the Coastal Act mandates that new development be located in close proximity to developed areas with public facilities and services. To delineate the areas appropriate for development in the Coastal Zone, Urban Service Areas have been established and include The Sea Ranch on the North Coast and Bodega Bay on the South Coast. Between these Urban Service Areas lie Rural Communities, areas that were previously subdivided or developed with public water and private septic systems and include Duncans Mills, Jenner, Sereno del Mar, Carmet, Salmon Creek, Timber Cove, and Valley Ford. These large lot subdivisions, have a strong impact on community aesthetics. Maintaining and preserving these communities adds to the visual character of the coast.

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 (comprised of landform and vegetation) and existing development.

The Sea Ranch, Bodega Bay, and Bodega and Duncans Mills Historic Districts have adopted design guidelines and development must be consistent with these standards. In all other areas construction materials, colors, and architectural features should blend with the natural landscape features of the site so that structures and nature complement one another and development has a minimal aesthetic impact. In the Bodega and Duncans Mills Historic Districts, Stewarts Point, and Valley Ford, integrating new buildings with the existing character of the town is the main concern.

An issue closely related to integrating structural design with the physical conditions of a site is that of scale, the relationship of the size of the structure to its surrounding features, both natural and man-made. Homes on the Coast constructed out of scale with their surroundings may be too massive for their lot size, block light and air for smaller neighboring homes, or degrade the character and harmony of the community.

There are few unifying features in many of the subdivisions on the Sonoma Coast. In older communities, traditional styles of early coastal buildings are encouraged. In newer communities, roof lines and building exteriors should be compatible with surrounding buildings.

2.5.1 Urban Service Areas

The Sea Ranch. For over 100 years sheep ranches occupied the ten miles of coastline now occupied by The Sea Ranch. Oceanic Properties bought the 5200 acre Del Mar Ranch in 1963, intending to create a low density residential community where development would blend harmoniously with the natural environment. These goals are embodied in The Sea Ranch Codes, Covenants, and Restrictions (CC&Rs), Design Guidelines for The Sea Ranch and *The Sea Ranch Design Manual and Rules*; and have been applied and enforced by The Sea Ranch Design Committee and Department of Compliance and Environmental Management. The overall effect is of subdued, modern structures in some locations well integrated with the existing landforms and vegetation.

Bodega Bay. The small scale of its bay oriented development, historical significance, and importance to recreation and the fishing industry qualify Bodega Bay as a special coastal community worthy of protection. To maintain and protect the fishing village character of Bodega Bay and to provide needed affordable housing, new residential development adjacent to the original town is proposed to be similar in scale and design to that in the core area of Bodega Bay.

Most homes in the core area of Bodega Bay are similar in scale, design, and construction. This area including the Taylor Tract, is defined by modest single-story structures with pitched roofs, vertical windows, and vertical front elevations painted brown, beige, green, and white with contrasting trim. Small informal yards are devoted to landscaping, gardens, and parking areas. Many yards are bordered by traditional picket fences.

Commercial development in and near Bodega Bay encompasses a wide variety of styles and colors - mainly single-story wood structures with gable roofs and no other unifying design features. With the absence of a predominant architectural style for commercial structures, it would be appropriate for new commercial construction to reflect the nautical character of the harbor with wooden buildings of simple design.

Bodega Harbour Subdivision. Bodega Harbour Subdivision, located just south of Bodega Bay, began as a second home development in 1969. The subdivision has a design review procedure that is evident in the existing development. The residences relate to one another, with few homes dominating. Structures are large one and one-half to two-story structures with unpainted wood exteriors and various modern architectural designs.

The Bodega Harbour Design Review Guidelines, in the CC&Rs for the Subdivision have been applied and enforced by the Bodega Harbor Homeowners Association Design Review Committee.

2.5.2 Rural Communities

Timber Cove. Timber Cove is a low density subdivision established in the early and middle 1960s that remains partially undeveloped. Most of the subdivision is heavily forested. Few lots are visible east of State Highway 1. The most visible lots are along Ninive Drive west of State Highway 1 and in meadow areas. The homes have subdued exterior colors, indigenous landscaping, and are generally well-screened behind trees and landforms. In two locations high fences adjacent to State Highway 1 block views to the ocean.

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 and new development is constrained by restrictions on water system connections and the limited area for septic systems on the small lots. As the community is highly visible from State Highway 1, it is important that new development be compatible in design and scale with existing development. Most homes are of one and two-story conventional construction with large windows overlooking the river and ocean, some with terraced gardens. Roofs are pitched and exteriors are painted wood except at the north end of town where some newer homes are unpainted with flat roofs. Roads are narrow and steep with no curbs, gutters, or sidewalks. Jenner does not have community specific design guidelines.

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. Density is approximately four units per acre with homes set squarely on the gently sloping lots east of State Highway 1. Homes are generally one-story with flat gravel

roofs and painted wood exteriors. Landscaping is suburban with lawns, flowers, and a few trees. Most of the remaining lots are unbuildable due to septic system constraints on the small lots. Any 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. The private roads are very narrow and poorly surfaced. Landscaping is minimal since yards are small and used primarily for parking. Community boundaries are well defined by Salmon Creek, State Highway 1, and State Parks property. Sewer and water constraints limit new development. The type 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.

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.

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 State Highway 1. Dating from the 1930s, 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. Although new development is severely constrained by inadequate water supply, any modifications to existing development should include design and landscaping improvements.

2.5.3 Landforms

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

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

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

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

2.5.4 Vegetation

A substantial amount of change to vegetation has occurred on the Sonoma County coast over the last couple hundred years. Logging in particular has eliminated forest land close to the coastline. Prairie grassland is the characteristic landscape along State Highway 1. Other vegetation changes include the planting of windbreaks, comprised predominantly of cypress trees; and the planting of pine trees between State Highway 1

and the coastline. Landscape planting can add complexity to the view and screen unnatural elements. However, the 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.

The Sea Ranch Association staff and volunteers have developed vegetation management programs to promote and enhance native plants while controlling and removing invasive non-native plants at The Sea Ranch. These programs include a Fuel Management Plan for fire safety consisting of pine plantation thinning for tree health, cypress hedgerow replanting and replacement for wind breaks, and sheep grazing to reduce fuel load. The Commons Landscape Committee has developed an active stewardship program where volunteers work monthly in specific areas to reduce fireweed and thistles and promote native plant regeneration. The Native Plant Committee works with homeowners to guide them in selecting and planting local native plants on their properties.

In 2015, the Commons Landscape Committee completed an extensive five-year program to review and study vegetation management in the Commons areas based on input from members and resident experts. The Committee has developed ten area management plans, each of which include information and guidelines on geology, vegetation, native plants, history, planning, and architecture and an implementation program.

2.5.5 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: For The Sea Ranch, Timber Cove, Bodega Harbour, and Sereno del Mar, the applicable community-specific design guidelines in addition to the Coastal Design Guidelines (**Appendix A**) shall be used. 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.

3.1.1 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.

3.1.2 Biotic Resources of the Coastal Zone

The Biotic Resources section provides a brief overview of the four main biotic resources categories represented within Sonoma County's Coastal Zone: 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.

3.1.3 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 rivers 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.

3.1.4 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. 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 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.

3.1.5 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.

3.1.6 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.

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.

3.2 Biotic Resource Protections

The following policies shall be used to achieve these objectives:

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

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

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 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)**

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 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. 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.

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. **(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 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 ESHA resources, and those that are otherwise specifically provided for in **Policy C-OSRC-b(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)** 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 600-foot buffer 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. Only developments consistent with **Policy C-OSRC-5b(7)** shall be allowed in 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 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 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)**

Policy C-OSRC-5b(11): Land divisions, including subdivisions, lot splits, and lot line adjustments involving lots containing or within proximity to 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 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 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 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). 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.

(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. 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 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 Tideflats, 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, 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.

   b. Between 100 to 300 feet, unless it would not have an adverse impact on the wetland.

(7) New water diversions from streams which feed wetlands. **(Existing LCP Revised)**

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)**

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)**

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)**

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

The previous Local Coastal Plan had a separate chapter on Harbors. The harbor and marina facilities, commercial fishing, and harbor construction and maintenance sections of that chapter have been incorporated into the Open Space and Resource Conservation Element under this Commercial Fishing and Support Facilities section.

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.

4.1.1 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.

4.1.2 Climate Change

The following discussion of the potential impacts of climate change on fisheries is based on information on the U.S. Environmental Protection Agency's 2013 Website:

Climate change may impact fisheries on and off the Sonoma County coast. Fisheries are highly dependent on specific climate conditions. Warmer water temperatures are likely to cause the habitat ranges of many fish and shellfish species to shift, which could disrupt 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 (CO_2). 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.

4.1.3 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. Much of the eastern boundary of this sanctuary occurs along the shores of Marin County, with a smaller portion also bordering southwestern Sonoma County near Bodega Bay. This sanctuary contains a vast range of marine habitants and biodiversity, and 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 drafted in October of 2008.

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, 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. Overall, the monument area also extends 12 nautical miles from the shore. The Resource Management Plan, approved in September 2005, provides guidance on the ways in which the BLM is to collaborate with the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) and the California Department of Parks and Recreation to ensure effective day-to-day management of the monument. In addition, the Resource Management Plan lists goals, objectives, management actions, allowable uses, and operating frameworks to develop the decisions and actions necessary to preserve and enhance the California Coastal Monument. Portions of the Coastal National Monument overlap with the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries.

4.1.4 Oil Exploration and Development

Oil exploration and development on the Sonoma County coast may adversely affect sensitive areas identified in the Local Coastal Plan. Streams and estuaries serve as nursery areas and habitats for commercial fish species and are especially vulnerable to damage by an oil spill. Offshore activities such as oil platforms, pipelines, and tankers could interfere with commercial fishing activities. Ocean disposal of wastewater could adversely affect nursery areas and the commercial fishing industry. 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.

4.1.5 Bodega Bay and Harbor

Bodega Bay is a natural coastal embayment located in southwestern Sonoma County, about 58 miles north of the entrance to San Francisco Bay and 20 miles west-southwest of Santa Rosa. The bay is shaped like a crescent and bound by an abrupt hill, Bodega Head, on the north; and Tomales Bluff on the south. A lagoon, commonly known as Bodega Harbor, is located at the northern end of Bodega Bay, and is separated from the Bay proper by a natural sand spit commonly known as Doran Spit; and from the Pacific Ocean by an extensive area of sand dunes just north of Bodega Head. The entrance to the harbor is protected from the prevailing northwesterly and westerly

winds and seas by Bodega Head and is safe for passage of fishing and recreational boats throughout the year.

Bodega Harbor is home to a major commercial fishing fleet - about 300 commercial fishing vessels with 250 permanent berths at the Spud Point Marina. During the commercial salmon season, an additional 200 vessels and 600 sport boats use Bodega Harbor. It is the largest fishing port between San Francisco and Fort Bragg. As an all-weather port, Bodega Harbor serves as a safe harbor of refuge during winter storms. 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**). Public dock and berth facilities are provided at Doran County Park, Westside County Park, and Bodega Bay Dunes State Beach. Other facilities at Bodega Harbor 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.

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

Facility	Number
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

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. Spud Point Marina generates the majority of its revenue on berthing, fuel sales, and ice sales to commercial salmon and crab fishermen. These revenues are heavily dependent on the availability and quality of salmon and crab each season. Other dependencies include state and federal approvals for the fishing season as well as the economy in general. In past years, entire fishing seasons have been closed due to sparse fish populations or other fish and shellfish harvest prohibitions. Without a robust salmon and crab season, a good economy, and high selling prices for the fishermen, the revenue stream will not be sufficient to support Spud Point Marina. Mason's Marina was leased to a private operator for forty years ending in 2013 and is now operated by County Regional Parks. The marina was able to generate some revenue, however required maintenance (the responsibility of the lessee) was not performed, and there are significant deferred maintenance issues. The Sport Fishing Center uses the staff of Spud Point Marina and has historically operated within budget. The required repairs to the three marina facilities, recent efforts to improve and reduce the cost of marina operations and increase revenue, and potential long-term opportunities for the future of Bodega Bay are described in the 2013 *Bodega Bay Opportunities: Business Improvement Proposal and Potential Long-term Strategies* prepared by County Regional Parks.

4.1.6 Commercial Fishing Industry

Chinook (king) salmon and Dungeness crab are the major fish species of the commercial fishery on the Sonoma County coast, centered at Bodega Bay. Other fish species of this commercial fishery include rockfish, albacore tuna, sole, red urchin, California halibut, lingcod, sablefish, thornyhead, and cabezon. Populations of these commercial fish species, particularly salmon, are on a decline. The California coastal chinook salmon and the central California coast coho salmon, which inhabit the Russian River, were listed as federal endangered species in 1990 and 1996, respectively.

Bodega Bay's commercial fishing industry, which took off during World War I and focused primarily on salmon, drove the local economy and structured life in the area.

Deposition of silt in Bodega Bay in the late 1930s and early 1940s threatened the sustainability of the fishing industry, but it bounced back after the Bay was dredged in 1943. By the early 1980s the fishing fleet grew to about 300 boats, and during this period the value of commercial fish landings reached more than 15 million dollars. After record catches in the late 1980s, the salmon industry again came upon hard times as the number and value of salmon landings plummeted. Many fishermen left commercial fishing as their livelihoods were jeopardized. Following a resurgence in the area's salmon populations in the middle 1990s, the deposition of silt in Bodega Bay again became a problem. A 2004 community profile prepared by the Northwest Fisheries Science Center of the NOAA indicates the sedimentation in Bodega Bay is paramount to the community as the only port between San Francisco and Fort Bragg that is large enough for many ocean-going vessels.

The organization Ecotrust reported that between 1981 and 2004, overall commercial fish landings and revenues at ports declined in the study area comprised of the Bodega Bay, San Francisco Bay, and Half Moon Bay areas. Bodega Bay area port landings and revenues account for about 20 percent of the regional landings and 25 percent of total revenues in the study area. However, landings and revenues at the port at Bodega Bay has declined from around 10 million pounds and dollars in the 1980s to half that in the 1990s. Sonoma County Agricultural Crop Reports show commercial fish landings on the Coast have generally declined over 45 percent from 3.5 million pounds in 2002 to 1.8 million pounds in 2008.

The causes for the ecological and economic decline of commercial fisheries on the North Coast has been the subject of debate among fishermen, scientists, and environmentalists and include habitat degradation from timber harvesting, agriculture, and hydroelectric dams; non-point source pollution; overfishing by commercial and sport fishermen; and regulatory restrictions. A NOAA report released in spring 2009 cited poor ocean conditions, which among other things resulted in a decrease in the food supply, as a major factor in the sharp decreases in Chinook salmon, Coho salmon, seabird, and marine mammal populations along the California Coast.

The Sonoma County Water Agency (Water Agency) is charged with balancing Russian River water demands by its urban and agricultural customers and at the same time protecting the endangered Coho salmon. In 2008 the National Marine Fisheries Service issued a Biological Opinion that requires the Water Agency to take specific measures to preserve these three species. As of 2009 a habitat enhancement program within Dry Creek and a pipeline project to bypass the creek and bring water directly to the Russian River are being designed and implemented. In addition, water stored in Lake Mendocino

is carefully managed so there is enough water in the Russian River for fall Chinook salmon migrations.

According to North Coast fishermen, 2008 and 2009 were the worst fishing seasons in many years. Salmon accounts for roughly half of the average fisherman's income. As the salmon populations decline, so does the commercial salmon fishery and the livelihood and survival of commercial fishermen. Some fishermen have and will find other ways to survive such as doing more crab fishing; fishing for smaller fish such as rock cod, herring, or albacore tuna; or fishing for the giant Humboldt squid or the slime eel that is a popular delicacy in Korea. Some fishermen will barely survive, and others will give up their livelihood. The number of small fishermen on the Pacific Coast has been steadily declining for years. The Pacific Coast Federation of Fishermen's Associations had 1,400 members in 2009, compared to more than 3,000 when it was founded in 1976.

4.1.7 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.

Constructing the federal navigation channel and turning basins entailed dredging 1,814,100 cubic yards of sediment. Since the channel and basins were completed in 1943, maintenance dredging has been conducted on a cycle of 10-12 years, reflecting a very low sediment deposition rate in the channel of 10,000-12,000 cubic yards per year. Past maintenance dredging of the federal navigation channel and turning basins was conducted in 1948 (275,000 cubic yards), 1961 (383,000 cubic yards), 1968 (100,000 cubic yards), 1980 (70,000 cubic yards), 1992 (69,000 cubic yards), and 2004 (< 1,000 cubic yards). About 209,000 cubic yards of sediment were dredged in 1984 to construct Spud Point Marina. County Regional Parks also dredged near Spud Point Marina B Dock in Fall 2009.

The October 2003 *Bodega Bay Harbor: Dredged Material Management Plan* prepared by the Corps of Engineers concludes that available upland sites for disposal of dredge spoils are insufficient to adequately maintain the federal navigation channel. In 2003 the Corps of Engineers was directed, under a cost share project with the Regional Parks

Department, to rehabilitate the Old Airport Disposal Site used in the past for disposal of spoils from maintenance dredging of the federal navigation channel; initiate a program for maintenance dredging of the federal navigation channel; and make suitable dredged material available to County Regional Parks for development of public facilities (see the New Airport/Community Park Disposal Site under Disposal Site Alternatives below).

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 October 2003, the Corps of Engineers analyzed eleven alternatives for disposal of material dredged from Bodega Harbor. The alternatives included upland disposal, beach augmentation, and deep ocean disposal. (*Bodega Bay Harbor: Dredged Material Management Plan*) The analysis compared the reuse permit requirements, available disposal volume, distance to the disposal site from the dredging site, timing, technical and logistical issues, project cost, monitoring cost, and environmental impacts of these alternatives.

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.

4.1.8 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)**

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 are located throughout the County but are concentrated primarily in the Sonoma Valley, west Sebastopol, west Santa Rosa, Alexander Valley, and Dry Creek Valley areas. 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. However, lands with good agricultural soils are often desirable for building sites as they are generally located in flat valleys with few physical constraints. Important timberland soils are located primarily in the northwest County and Russian River area. 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 slopes of 30 percent or greater.

(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 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)**

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 coastal 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.*

6.1.1 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.

6.1.2 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.

6.1.3 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.

Since State law gives primary regulatory responsibility for timber operations to CalFire, the County's land use authority is limited. Instead, the County has focused its policy directives on maintaining 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)**

7. MINERAL RESOURCES POLICY

Although various minerals have been mined in Sonoma County during the past century, mining operations at the current time consist almost exclusively of the extraction and processing of rock, sand, and earth products for use in construction and landscaping. From 1995 to 2002, an average of 4.84 million tons of construction aggregate was mined and marketed each year to meet local needs and a share of the North Bay regional needs. Approximately 75 to 112 million tons are likely to be needed over the next 20 years. The Bodega Bay Quarry, formerly Cheney Gulch Quarry, was the only active mining operation in the Coastal Zone for about 60 years. It is no longer active and was released and reclaimed in 2012.

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 conflicts with nearby residential, agricultural, and recreational uses and may impact habitat and fishery resources.

The State Geologist classifies or inventories mineral lands throughout the State and has designated certain mineral reserve areas as being of regional significance. By law, local agencies must adopt mineral management policies that recognize mineral information provided by the State, assist in the management of land use that affect areas of statewide and regional significance, and emphasize the conservation and development of identified mineral deposits.

Accordingly, Sonoma County has adopted the Aggregate Resources Management (ARM) Plan to set forth the State mandated mineral management policy for the County. During the process of adopting the plan, the County considered the aggregate resource areas classified as MRZ-2 by the State Geologist.

Land use policies have been formulated with full recognition and consideration of the classification and designation information transmitted by the State (State Department of Conservation, California Geological Survey Special Report 175 and subsequent amendments) and incorporated by reference herein. Sonoma County has considered the importance of its aggregate resources to the regional market and not just to the County.

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 zoned Mineral Resources (MR) or 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 presently include sandstone deposits located in Cheney Gulch, approximately 2.5 miles east of Bodega Bay in western Sonoma County.[2] Review requests for additional designations for conformity with the Local Coastal Plan and the Aggregate Resources Management (ARM) Plan. **(GP2020)**

Policy C-OSRC-10b: Review projects for environmental impact and land use conflicts and consider the following minimum factors when approving mining permits: topsoil salvage; vegetation, fisheries and wildlife impacts; noise impacts; erosion control;

[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*.

roadway conditions and capacities; reclamation and bonding; air quality impacts; energy consumption; engineering and geological surveys; aggregate supply and replenishment; drainage; and the need for economical aggregate materials. **(GP2020)**

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

Sonoma County coast residents and businesses consume energy in many forms and for many uses, but primarily oil and gas for transportation and electricity for home and business. Residents and businesses also produce energy in individual, small scale uses. Therefore, energy resources are addressed in two sections. The first section addresses how the community can reduce future energy demand through conservation and efficiency measures. The second section addresses how the County can contribute to future energy supplies.

8.1.1 Climate Change

The following discussion of the potential impacts of climate change on energy resources is based on information on the U.S. Environmental Protection Agency's 2013 Website.

Changes in temperature, precipitation, sea level, and the frequency and severity of extreme storm events will likely affect how much energy is produced, delivered, and consumed in the United States.

Energy plays an important role in many aspects of our lives. For example, we use electricity for lighting and cooling. We use fuel for transportation, heating, and cooking. Our energy production and use is interconnected with many other aspects of modern life, such as water consumption, use of goods and services, transportation, economic growth, land use, and population growth. Our production and use of energy (most of which comes from fossil fuels) also contributes to climate change, accounting for more than 80 percent of U.S. greenhouse gas emissions.

Temperature, Energy Demand, and Energy Supply. Increases in temperature will likely change how much energy we consume, as well as our ability to produce electricity and deliver it reliably. In a warmer climate, Americans would use more electricity for air conditioning and less natural gas, oil, and wood for heating. Heating demand would decrease the most in the northern United States, and cooling demand would increase

the most in the southern United States. Changes in energy demand will likely affect greenhouse gas emissions, but the net effect depends on which energy sources are used for electricity and heating.

Warming is likely to increase summer peak electricity demand in most regions of the United States. Meeting increases in this peak demand could require investments in new energy infrastructure. A warmer climate may reduce the efficiency of power production for many existing fossil fuel and nuclear power plants because these plants use water for cooling. The colder the water, the more efficient the generator. Thus, higher air and water temperatures could reduce the efficiency with which these plants convert fuel into electricity.

Water Availability and Energy. Energy is needed to pump, transport, and treat drinking water and wastewater. Cooling water is needed to run many of today's power plants. Hydroelectricity (electricity produced by running water) is itself an important source of power in some parts of the United States. Changes in precipitation, increased risk of drought, reduced snowpack, and changes in the timing of snowmelt in spring will likely influence our patterns of water and energy use.

Power plants can require large amounts of water for cooling. Parts of the United States face increased competition for water to meet the demands of population and economic growth while also protecting natural ecosystems. Consequently, these regions are already slowing or stopping plans for new power plants that require large withdrawals of water due to concerns about adequate availability of cooling water. More frequent and severe heat waves will likely increase the demand for electricity in these areas. At the same time, decreased rain and/or increased temperature and evaporation would likely result in reduced water supplies. Since water is necessary for electricity production, these combined effects could stress water resources. Growing crops for biomass and biofuel energy could stress water resources in certain regions, depending on the type of crop, where it is grown, agricultural production in the region, and current water and nutrient management practices. Rising temperatures, increased evaporation, and drought may increase the need for energy-intensive methods of providing drinking and irrigation water. For example, desalinization plants can convert salt water into freshwater, but consume a lot of energy. Climate change may also require irrigation water to be pumped over longer distances, particularly in dry regions across the western United States.

Sea Level Rise, Storm Surge, and Extreme Events. A large portion of U.S. energy infrastructure is located in coastal areas and therefore sensitive to sea level rise and storm surge. For example, fuel ports and the generation and transmission lines that bring electricity to major urban coastal centers are at risk. Changes in the frequency and

severity of storms and other extreme events may also damage energy infrastructure. Disruptions to energy supply due to compromised infrastructure can affect many activities, depending on the destination and final use of the fuel. Disruptions in the supply of oil would affect the production of transportation fuels. Disruptions in natural gas supply could affect electricity generation, residential and commercial heating, and industrial processes. Offshore oil drilling platforms are vulnerable to extreme weather events. Additional information on the coastal risks to climate related hazards can be found on the Public Safety Element of this Local Coastal Program.

Flooding and intense storms can damage power lines and electricity distribution equipment. These events may also delay repair and maintenance work. Electricity outages can have serious impacts on other energy systems as well. Sea level rise adaptation policies are also found in the Public Safety Element of the Local Coastal Plan.

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 alternative fuels. Other strategies include improved construction standards and agricultural practices, solid waste management, and education.

Sonoma County has led the way in programs designed to conserve energy in County operations, including building audits, lighting retrofits, and electric and hybrid fleet vehicles. The County has also initiated the Sustainable Policies and Practices Project that aims to monitor and reduce energy use in all County operations on an ongoing basis. In 2005, Sonoma County became the first county in the nation where the County and all of its Cities pledged to measure and reduce their greenhouse gas emissions by 25 percent below 1990 levels by 2015. The County later passed a resolution including long- term goals for greenhouse gas emissions of 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. Reducing energy demand is the primary strategy for meeting this target. Much more work is needed to ensure that the County's efforts are coordinated with evolving state and federal initiatives.

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 County government operations.

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: Encourage the water and wastewater service providers to reduce energy demand from their operations. **(GP2020)**

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, including passive solar collection, wind energy, hot water, and biomass. These sources have distinct advantages over the more traditional fossil fuel sources such as oil and gas in that they typically have lower up-front costs, better efficiency, and minimal environmental impacts.

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 County operations.

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 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)**

Policy C-OSRC-12b: Encourage and promote the development of renewable energy and distributed energy generation systems and facilities for County operations. **(GP2020)**

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)**

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.

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 (NOx) 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. ARCHAEOLOGICAL AND HISTORIC RESOURCES POLICY

10.1 Background

Historic preservation is intended to maintain reminders of the County's heritage and development. Archaeological sites provide information on the history and culture of Sonoma County's earliest residents and can be disturbed by development activities. Heritage and Landmark trees enhance the quality of the environment and have historical significance.

A goal of the Local Coastal Plan is to protect the historic resources of the Sonoma Coast to maintain reminders of the area's heritage and development. This section of the Open Space and Resource Conservation Element contains a brief history of the Sonoma County coast, a description of the Coastal Zoning Ordinance provisions designed to protect historic resources, information on the inventory of historic resources on the Coast, and policies for protection of historic resources. The Coast has a rich and varied human history extending from Native American settlement six to ten thousand years ago to the tourist boom of the 1900's. Historic uses that drove major increases to the coastal population include, fishing, furring, logging and development of local mills, the gold rush, and tourism, many of which remain important today.

10.1.1 Early History and Peoples

Native American settlement began on the coast 6,000-10,000 years ago. The Kashaya Pomo lived on the Russian River and northern coast. The Coast Miwok lived south of the River; their region included southern Sonoma County and Marin County. Both groups occupied a narrow territory extending from the coast several miles inland. The Pomo likely had more contact with Russians who settled Fort Ross in the early 1800's and became somewhat acculturated to them. By the 1870's the Pomo survived in three

villages. By 1915 a reservation was granted for their permanent residence. The Miwok were subjected to European influence by the San Francisco and Sonoma Missions.

10.1.2 1500 to 1775

Early English and Spanish explorers came to the Sonoma County coast: Juan Rodriguez Cabrillo in 1542, Drake in 1579, and Cermeno in 1595. In October 1775, Lieutenant Don Juan Francisco de la Bodega y Quadra sailed to Anchorage. The log of this voyage named the Bay for Bodega.

10.1.3 1800’s

The 1800’s increased settlement of the Sonoma County coast. In 1809 the Russians came south from Alaska seeking furs and a food source. They located a village near what is now the town of Bodega and built Fort Ross approximately 20 miles north. After the destruction of the sea otter, the Russians began to fail financially and sold to Captain John Sutter in 1841. The commercial marketing of lumber and lumber products began when Captain Smith brought the first steam saw mill in the 1840's. Railroads, sailboats, and steam schooners were used to get timber from the mills to market. Landings occupied Del Mar and Black Point at The Sea Ranch, Stewarts Point, Fisk Mill, Salt Point, Walsh's Landing (now Ocean Cove), Stillwater south of Stillwater Cove, Timber Cove, Fort Ross, Russian Gulch, Rules Landing, and Duncans. The great redwoods were almost all logged by the 1880's.

During the Gold Rush squatters broke up the great ranchos, as in the Bodega Squatters War of 1859. By 1851 Valley Ford became a community. In 1853 the ranch owned by Captain Smith was renamed Bodega Corners and present day Bodega Bay was developed as a harbor. The coastal roads met at the harbor, and by the 1870’s the New England style town became the largest town, including three stores, one hotel, and three lodges. St. Theresa's church, built by Yankee shipbuilders, served many local Irish. The Potter School, once the "finest in the county", had dances, social gatherings, and a Dramatic Society formed in 1874. Eventual silting of the harbor curtailed further commercial expansion. Stewarts Point was founded in 1857 as a shipping port and remains a village with the original buildings and families. The route of the North Pacific Coast Railroad was completed in 1877, which contributed to a great increase in dairy farming along the coast and the development of Duncans Mills.

10.1.4 1900’s

The landings used for logging ceased operation in the 1920's. Forest products and second growth mills continued until 1930. Agriculture including, livestock, dairy, wheat,

and potatoes, served as the major economic interest replacing lumber on the coast. The State Park system began to expand north to the Russian River as more people visited the Coast beaches. By 1906 Fort Ross was sold for a State Park. The boom caused by the railroad brought dairy herds throughout the coast. Sportsmen and later tourists also took advantage of the area opened by the railroads. A triangular route from San Francisco meant a trip could be made in one day to the Russian River from San Francisco. By 1900, wealthy residents of Santa Rosa bought summer homes at Bodega Bay. The tourist industry flourished after construction of roads like State Highway 1 built in the 1920's. In the 1930's the Russian River area was popular for name bands and summer camps. Bodega Bay was dredged in 1943, opening the bay for pleasure boats and commercial fishing. The fishing industry grew rapidly as an industry and tourist attraction, and Bodega Bay became a fishing village.

The Sonoma County coast has changed dramatically over the last half century. The tourist industry boomed after World War II. Improvements to State Highway 1 made travel along the coast less daunting. The State of California and County of Sonoma have preserved large portions of the coastline for parks and recreation - Sonoma Coast State Park (and beaches), Salt Point State Park, and Fort Ross State Historic Park; and Gualala Point Regional Park and Stillwater Cove Regional Park, respectively. These parks plus development of private visitor-serving facilities brought more tourists to the coast. Several private residential developments including Timber Cove, (1961), The Sea Ranch (1964) and Bodega Harbor (1971) have increased the resident population and options for vacationers. As these communities have grown, the Sonoma County coast has gradually evolved an economy based primarily on recreation and tourism, although logging and fishing are still important activities.

10.1.5 Historic Landmarks and Resources

The County maintains an inventory of historic resources. The Historic Resources Inventory includes Historic Landmarks, Historic Districts, and other historic resources (e.g., structures, buildings, bridges, roads, cemeteries, landscaping, trees, and sites) without HD zoning. Future historic resources may be identified as new surveys are conducted. These historic resources may be designated as a County Historic Landmark or County Historic District.

A Historic Combining Zoning District (HD) was established in 1974. Structures, sites, or parcels are zoned HD only after a recommendation by the County Landmarks Commission and approval by the Planning Commission and Board of Supervisors. The Landmarks Commission reviews projects involving new construction, demolition, or exterior alteration of County Historic Landmarks, historic resources in County Historic

Districts, and historic resources on the County Historic Resources Inventory to ensure maintenance of their historic and architectural values and compatibility with existent development. The HD Zoning also protects historic structures from demolition for a period of at least six months, allowing time to explore alternatives to demolition.

A comprehensive survey of historic resources on the Sonoma County coast was conducted prior to adopting the 1981 Local Coastal Plan. The survey identified about 90 individual historic resources, some of which have been designated as Historic Landmarks; and areas of special historic or architectural interest that have been designated as Historic Districts. Two of the County's five Historic Districts are located in the Coastal Zone including Bodega Historic District and Duncans Mills Historic District. The communities of Stewarts Point, Fort Ross, and Duncans Mills and many of the individual historic structures or sites associated with these communities were zoned HD with adoption of the 1981 Local Coastal Plan.

GOAL C-OSRC-14: **Protect and preserve significant archaeological and historical sites and tribal cultural resources that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. Preserve unique or historically significant heritage or landmark trees.**

Objective C-OSRC-14.1: Encourage the preservation and conservation of historic buildings and structures by promoting their rehabilitation or adaptation to new uses.

Objective C-OSRC-14.2: Encourage preservation of historic buildings, structures, sites, cemeteries, features, and objects by maintaining a Landmarks Commission to review projects that may affect these historic and cultural resources.

Objective C-OSRC-14.3: Encourage the protection and preservation of archaeological and cultural resources by reviewing all development projects in archaeologically sensitive areas.

Objective C-OSRC-14.4: Identify and preserve heritage and landmark trees.

Objective C-OSRC-14.5: Encourage the identification, preservation, and protection of Native American cultural resources, sacred sites, places, features, and objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites. Ensure appropriate treatment of Native American and other human remains discovered during a project.

Objective C-OSRC-14.6: Develop and employ procedures to protect the confidentiality and prevent inappropriate public exposure of sensitive archaeological resources and Tribal cultural resources, sacred sites, places, features, or objects.

The following policies shall be used to achieve these objectives:

Policy C-OSRC-14a: Refer proposals for County Historic Landmark designation and rezoning to the Historic Combining District to the Sonoma County Landmarks Commission. **(GP2020)**

Policy C-OSRC-14b: The Sonoma County Landmarks Commission shall review Historic Resource Surveys and Evaluations and make recommendations for designation of buildings, structures, sites, cemeteries, features, or objects as County Historic Landmarks. **(GP2020)**

Policy C-OSRC-14c: Refer lists of historic buildings, structures, sites, cemeteries, features, and objects proposed for designation as County Historic Landmarks to the Sonoma County Landmarks Commission for its recommendation. **(GP2020)**

Policy C-OSRC-14d: Refer applications for coastal development permits to the Northwest Information Center at Sonoma State University to determine if the project site may contain archaeological or historic resources. If a site is likely to have archaeological resources, a field survey and an archaeological resources report that contains the results of the survey and includes appropriate mitigation measures shall be required. If the site is likely to have historic resources, a field survey and an historic resources report that contains an evaluation of whether the historic resources are significant under state and federal criteria shall be required. **(GP2020) (Existing LCP Revised: Recommendations 79-80 on page 34)**

Policy C-OSRC-14e: Refer applications for development permits that involve the removal, demolition, or alteration of a building, structure, site, cemetery, feature, or object identified in an Historic Resource Survey to the Sonoma County Landmarks Commission for review and mitigation, with the exception of such projects within The Sea Ranch, which shall be referred to the Sea Ranch Design Committee. Measures for removal or demolition may include reuse, relocation, preparation of as-built drawings, and photo-documentation. **(GP2020)**

Policy C-OSRC-14f: Use the Heritage or Landmark Tree Ordinance and the design review process to protect trees. **(GP2020)**

Policy C-OSRC-14g: If a project site is determined to contain Native American cultural resources, such as sacred sites, places, features, or objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites, notify and offer to

consult with the tribe or tribes that have been identified as having cultural ties and affiliation with that geographic area. **(GP2020)**

Policy C-OSRC-14h: Continue to comply with State laws regarding tribal consultation during the Local Coastal Plan adoption and amendment process, the review of coastal development permits, and during CEQA review. **(GP2020 revised)**

Policy C-OSRC-14i: Continue to apply standard conditions requiring notification and evaluation in the event of the discovery of a burial or suspected human remains or other cultural resources, including consultation with the Most Likely Descendant as identified by the California Native American Heritage Commission, in the event that the remains are determined to be Native American. **(GP2020 revised)**

11. 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.

11.1 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)**

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)**

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.

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)**

11.2 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 *(Callianassa 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)**

12. REFERENCES

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

Mendocino County

GUALALA RIVER

Gualala Point Regional Park

Gualala Point

Rock Cod

Leeward Rd

Deer Trl

Halcyon

Deer Trl

Helm

Sounding

Pelican

Leeward Rd

The Sea Ranch

Del Mar Point

Del Mar Ecological Reserve

Leeward Rd

Walk-on Beach

SubArea 2
The Sea Ranch South

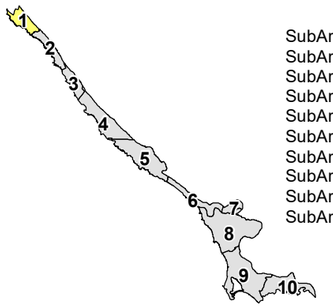
Scenic Resources

- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers

- Coastal SubArea
- Urban Service Area
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

DRAFT

Note:
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Data Source: Sonoma County PRMD GIS

Scenic resources shown on this map include only known areas as of a certain date. There may be other scenic resources identified or found through field studies or reviews. Consultation with the Permit and Resource Management Department and field reviews may be necessary to determine potential scenic resources on a given site.

0 0.25 Miles

1 inch = 1,750 feet

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FIGURE C-OSRC-1a
Designated Scenic Resource Areas
SubArea 1
The Sea Ranch North

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

SubArea 1
The Sea Ranch North

The Sea Ranch

Wild Moor Reach

Bluff Reach

Breaker Reach

Stengle Beach

Longmeadow Rd

Sea Ridge Rd

Annapolis Rd

Sculpture Pt Dr

Pebble Beach

Timber Ridge Rd

Moonraker Rd

Black Point Beach

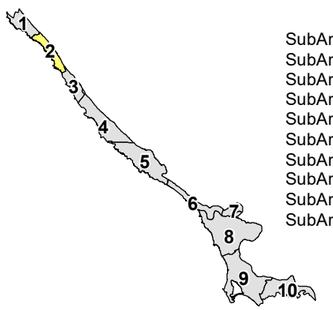
Black Point

SubArea 3
Stewarts Point/Horseshoe Cove

Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Urban Service Area
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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1 inch = 2,500 feet

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FIGURE C-OSRC-1b
Designated Scenic Resource Areas
SubArea 2
The Sea Ranch South

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

SubArea 2
The Sea Ranch South

Stewarts Point
Cove

Stewarts Point

Fisherman
Bay

Rocky Point

Stewarts Creek

Stewarts Point Skaggs Springs Rd

Mcclellon Gulch

SubArea 4
Salt Point

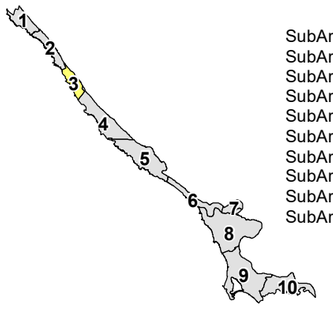
Scenic Resources

- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers

- Coastal SubArea
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
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SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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1 inch = 2,167 feet

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FIGURE C-OSRC-1c
Designated Scenic Resource Areas
SubArea 3
Stewarts Point/Horseshoe Cove

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

SubArea 3
Stewarts Point/
Horseshoe Cove

Horseshoe Cove

Horsehoe Point

Fisk Mill Cove

Deadman Gulch

Tanbark Way

Cannery Gulch

Tanbark Way

Kruse Ranch Rd

Kruse Rhododendron State Natural Reserve

Plantation

Seaview Rd

Stump Beach

Miller Creek

Salt Point State Park

Warren Creek

Wildcat Creek

Salt Point

Gerstle Cove

SubArea 5
Timber Cove/Fort Ross

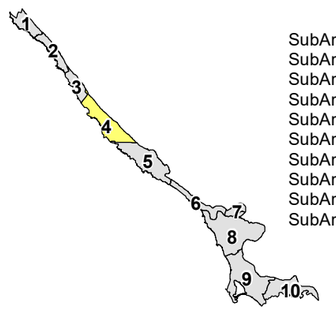
Scenic Resources

- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers

- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
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SubArea 9 State Beach/Bodega Bay
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0 0.5 Miles

1 inch = 3,333 feet

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FIGURE C-OSRC-1d
Designated Scenic Resource Areas
SubArea 4
Salt Point

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

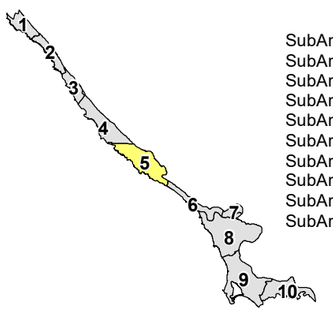
SubArea 4 Salt Point

Ocean Cove
Stillwater Cove Regional Park
Stockhoff Creek
Timber Cove Rd
Timber/Todds Creek
Stillwater Cove**
Stillwater Cove*
Cormorant Point
Timber Cove
Windermere Point
Kemper Gulch
Fort Ross State Historic Park
Fort Ross Rd
Fort Ross Creek
Sonoma Coast State Beach
Northwest Cape
Fort Ross Cove
Fort Ross Terrace
Mill Gulch
Timber South
Sonoma Coast State Beach
Jenner Gulch
SubArea 6
High Cliffs/Muniz-Jenner

Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
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SubArea 10 Valley Ford

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Stillwater Cove* = location according to County of Sonoma
Stillwater Cove** = location according to U.S. Geological Survey Map

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0 0.5 Miles
1 inch = 3,000 feet

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FIGURE C-OSRC-1e
Designated Scenic Resource Areas
SubArea 5
Timber Cove/Fort Ross

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Local Coastal Plan
Designated Scenic Resource Areas

SubArea5
Timber Cove/
Fort Ross

Jewell Gulch

Meyers Grade Rd

Sonoma Coast State Beach

Russian Ridge

Jenner Headlands

Jenner Beach

Fish Head Beach

Jenner

Jenner Gulch

Salmon Creek

Willow Creek

116

1

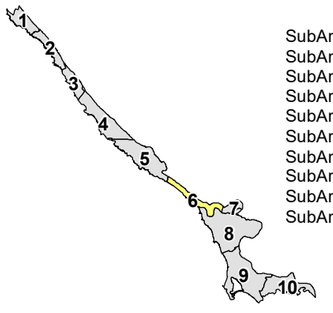
Scenic Resources

- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers

- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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SubArea 8
Pacific View/Willow Creek

FIGURE C-OSRC-1f
Designated Scenic Resource Areas
SubArea 6
Highcliffs/Muniz-Jenner

Note:
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Data Source: Sonoma County PRMD GIS

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0 0.5 Miles

1 inch = 2,750 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Reveiw Draft\Figure C-OSRC-1e_PR.mxd Date: 6/3/2019

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Local Coastal Program

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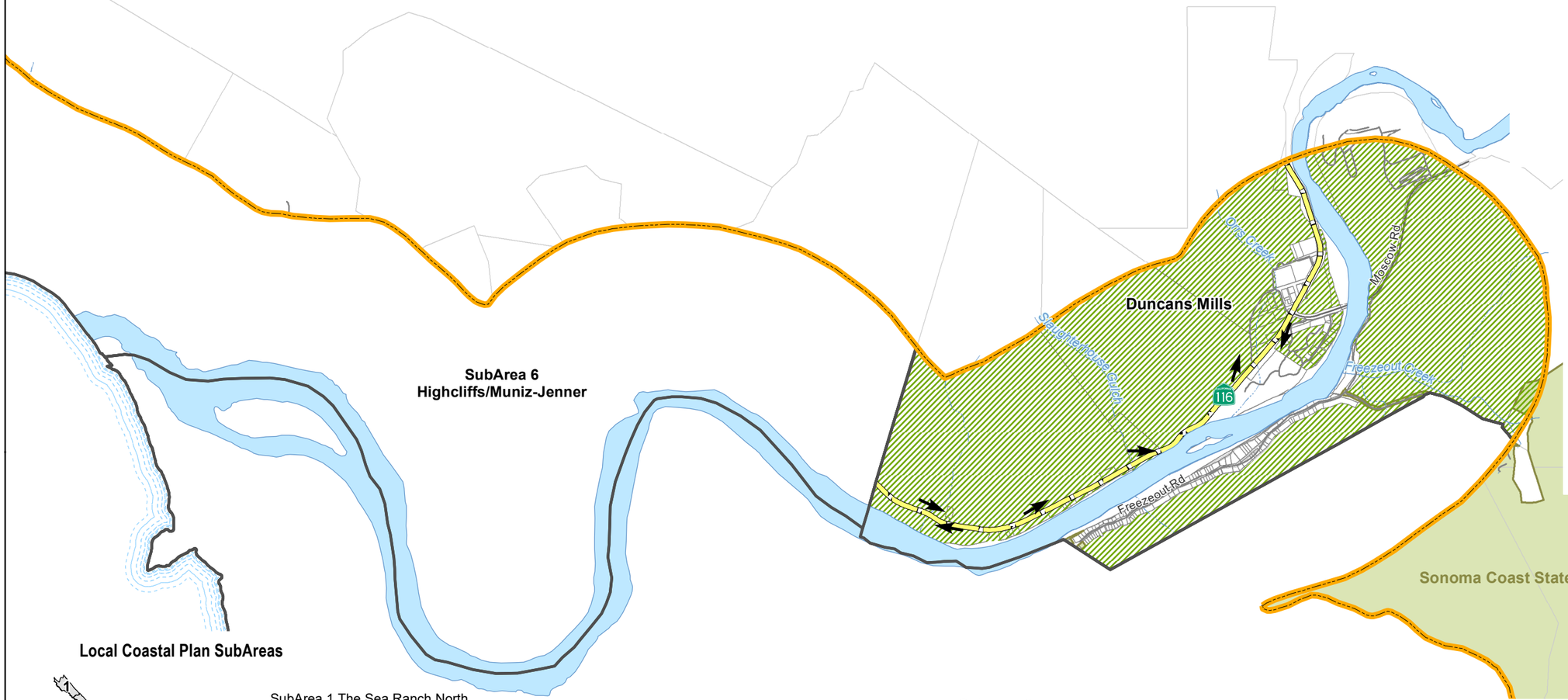
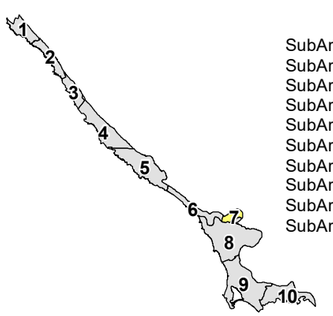
Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas



Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

SubArea 8
Pacific View/Willow Creek

Note:
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0 0.25 Miles
1 inch = 2,167 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-1g_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-1g
Designated Scenic Resource Areas
SubArea 7
Duncans Mills

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

SubArea 6
Highcliffs/Muniz-Jenner

SubArea 7
Duncans Mills

Penny Island

Russian River

Goat Rock Rd

Goat Rock

Blind Beach

Willow Creek Rd

Willow Creek

Shell Beach

Fort Ross Creek

No Name Beach

Wrights Beach

Ocean View

Duncans Landing

Hogback Rocks

Duncans Point

Duncans Cove

Rock Point

Gleason Beach

Scotty Creek

Calle Del Sol

Sereno del Mar

Portuguese Beach

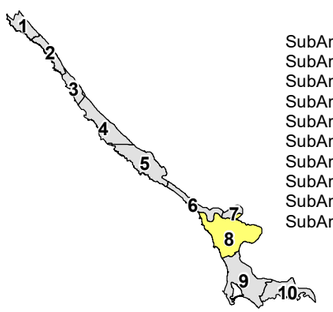
Schoolhouse Beach

SubArea 9
State Beach/Bodega Bay

Scenic Resources
- Major View
- Scenic Corridor
- Scenic Landscape Unit

Base Map Layers
- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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0 0.5 Miles

1 inch = 3,917 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-1h_PR.mxd Date: 6/3/2009

FIGURE C-OSRC-1h
Designated Scenic Resource Areas
SubArea 8
Pacific View/Willow Creek

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Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

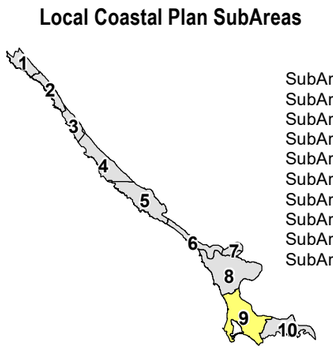
SubArea 8
Pacific View/Willow Creek

Carmet
Carmet Beach
Arched Rock
Arched Rock Beach
Coleman Beach
Miwok Beach
No Name Beach
North Salmon Creek Beach
Coleman Valley Rd
Salmon Creek
Salmon Creek
Salmon Creek Rd
Bodega
Bay Hill Rd
South Salmon Creek Beach
Sonoma Coast State Park
Bay Flat Rd
Bodega Bay
Mussel Point
Westside Regional Park
Bird Walk Coastal Access Trail
Bodega Harbor
Sea Way
Chanslor Guich
Estero Ln
Westside Rd
Bodega Marine Reserve and Laboratory
Heron Dr
Doran Beach
Doran Beach Regional Park
Campbell Cove
Bodega Head
Private Beach
Salmon Creek
Estero Americano
SubArea 10
Valley Ford
Marin County

Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
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SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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0 0.5 Miles
1 inch = 3,583 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-1i_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-1i
Designated Scenic Resource Areas
SubArea 9
State Beach/Bodega Bay

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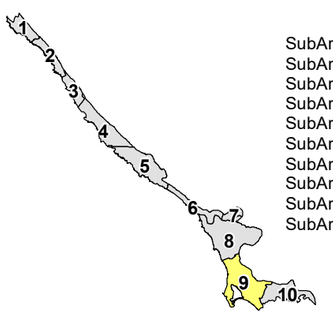
Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Park/Public Land
- Parcel
- Highway
- Road
- Perennial Stream
- Intermittent Stream

South Salmon Creek Beach
Sonoma Coast State Park
Bay Hill Rd
Bay Flat Rd
Bodega Bay
Westside Regional Park
Mussel Point
Sea Way
Bird Walk Coastal Access Trail
Bodega Marine Reserve and Laboratory
Bodega Harbor
Horseshoe Cove
Westside Rd
Heron Dr
Doran Beach
Doran Beach Regional Park
Campbell Cove
Bodega Head
Marin County

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
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SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
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SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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Data Source: Sonoma County PRMD GIS

0 0.25 Miles

1 inch = 1,833 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-1j_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-1j
Designated Scenic Resource Areas
SubArea 9
Bodega Bay Vicinity

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Local Coastal Program
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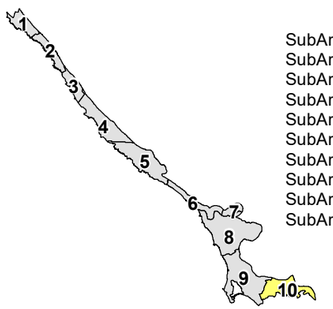
Sonoma County
Local Coastal Plan
Designated Scenic Resource Areas

Scenic Resources
- Scenic Landscape Unit
- Scenic Corridor
- Major View

Base Map Layers
- Coastal SubArea
- Parcel
- Coastal Zone Boundary
- Highway
- Road
- Perennial Stream
- Intermittent Stream

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

Bodega Hwy
Bodega
Estero Ln
Valley Ford Freestone Rd
Valley Ford
Valley Ford Estero Rd
Valley Ford Rd
Estero Americano
SubArea 9
State Beach/Bodega Bay
Marin County

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0 0.5 Miles
1 inch = 3,083 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-1k_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-1k
Designated Scenic Resource Areas
SubArea 10
Valley Ford

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Local Coastal Program
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Sonoma County
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

Mendocino County

Gualala River

SBP

SBP

SBP

Gualala Point Regional Park

Gualala Point

Rock Cod

Leeward Rd

Deer Trl

Halcyon

The Sea Ranch

Deer Trl

Sounding

Leeward Rd

Del Mar Point

Del Mar Ecological Reserve

Del Mar Landing State Marine Reserve

Greater Farallones National Marine Sanctuary

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SBP

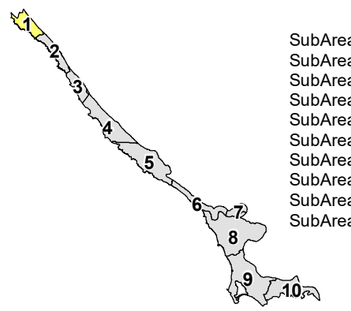
SBP

Walk-on Beach

Leeward Rd

SBP

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

Coho Salmon
Dunes
SBP - Sand Beach/Sand Spit or Bar
Freshwater Herbaceous Wetland
Pond or Resorvoir
Oak Woodland
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

Base Map Layers

Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Special Status Species Habitat Present in SubArea

Animals	Plants
California Giant Salamander	Blasdale's Bent Grass
California Red-Legged Frog	Coast Lily
Foothill Yellow-Legged Frog	Coastal Bluff Morning-Glory
Gualala Roach	Deceiving Sedge
Monarch Butterfly	Maple-Leaved Checkerbloom
Obscure Bumble Bee	Marsh Pea
Red-Bellied Newt	Mendocino Coast Paintbrush
	Perennial Goldfields
	Point Reyes Checkerbloom
	Purple-Stemmed Checkerbloom
	Pygmy Cypress
	Roderick's Fritillary
	Running-Pine
	Supple Daisy
	Swamp Harebell

FIGURE C-OSRC-2a
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 1
The Sea Ranch South

Note:
Biotic resources shown on this map include only known habitat areas as of a certain date. There may be other biotic resources identified or found through field surveys and studies or reviews. Consultation with the California Natural Diversity Data Base (CNDDB) and field surveys or studies may be necessary to determine potential biotic resources on a given site. The location of reported habitat and occurrences of special status plant and animal species are not shown on this map due to the non-specific nature of the data. For information on the reported habitat and occurrences of special status species in this SubArea, consult the California Natural Diversity Database. Policy is in place in areas without specific Environmentally Sensitive Habitat Area (ESHA) mapping information or data.

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Data Source: Sonoma County PRMD GIS, Sonoma County Agricultural Preserve and Open Space District (SCAPOSD), California Dept. of Fish & Wildlife Biogeographic Data Branch (BDB) - California Natural Diversity Database (CNDDB), The Resources Legacy Fund Foundation (contract), the Marine Protected Areas Monitoring Enterprise (coordination), Ocean Imaging (data collection and processing), The California Department of Fish and Game (database management). U.S. Dept of Agriculture, Forest Service, NOAA - Office of National Marine Sanctuaries

0 0.25 Miles

1 inch = 1,750 feet

SubArea 2
The Sea Ranch South

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Sonoma County
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

SubArea 1
The Sea Ranch North

The Sea Ranch

Wild Moor Reach

Bluff Reach

Breaker Reach

Stengle Beach

Greater Farallones National Marine Sanctuary

Longmeadow Rd

Sea Ridge Rd

Sculpture Pt Dr

Annapolis Rd

Timber Ridge Rd

Moonraker Rd

Pebble Beach

Black Point Beach

Black Point

Stewarts Point
State Marine Reserve

Stewarts Point
State Marine
Conservation Area

SubArea 3
Stewarts Point/Horseshoe Cove

- Freshwater Herbaceous Wetland
- Pond or Reservoir
- Oak Woodland
- Riparian Woodland
- Greater Farallones National Marine Sanctuary
- State Marine Protected Area
- Kelp Canopy
- Kelp Subsurface
- Riparian Corridor

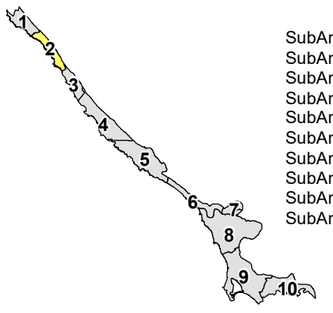
Base Map Layers

- Coastal SubArea
- Parcel
- Coastal Zone Boundary
- Highway
- Road

Special Status Species Habitat Present in SubArea

Animals	Plants
Behren's Siverspot Butterfly	Coast Lily
Monarch Butterfly	Coastal Bluff Morning Glory
Obscure Bumble Bee	Pacific Gilia
	Perennial Goldfields
	Point Reyes Checkerbloom
	Short-Leaved Evax
	Supple Daisy
	Swamp Harebell

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

0 0.5 Miles

1 inch = 2,500 feet

FIGURE C-OSRC-2b
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 2
The Sea Ranch South

Note:
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Local Coastal Program

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Sonoma County
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

SubArea 2
The Sea Ranch South

Greater Farallones National Marine Sanctuary

Stewarts Point
State Marine Reserve

Stewarts Point
Cove

Stewarts Point

Stewarts Point Skaggs Springs Rd

Stewarts Creek

Fisherman
Bay

Mcclellon Gulch

Stewarts Point
State Marine
Conservation Area

Rocky Point

SubArea 4
Salt Point

Freshwater Herbaceous Wetland
Oak Woodland
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

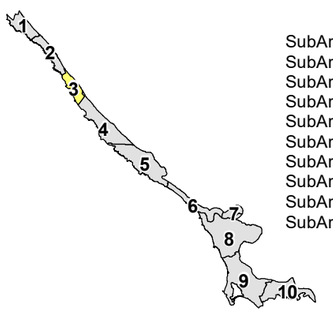
Base Map Layers

Coastal SubArea
Parcel
Coastal Zone Boundary
Natural Coastline
Highway
Road

Special Status Species Habitat Present in SubArea

Animals	Plants
Behren's Silverspot Butterfly	Blasdale's Bent Grass
California Giant Salamander	Coast Lily
Grasshopper Sparrow	Coastal Bluff Morning-Glory
Sonoma Tree Vole	Point Reyes Checkerbloom
	Purple-Stemmed Checkerbloom
	Supple Daisy
	Swamp Harebell
	Woolly-Headed Gilia

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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0 0.5 Miles

1 inch = 2,167 feet

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

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Sonoma County
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

SubArea 3
Stewarts Point/
Horseshoe Cove

Stewarts Point
State Marine
Conservation Area

Greater Farallones National Marine Sanctuary

Stewarts
Point State
Marine Reserve

Horseshoe
Cove

Horseshoe
Point

Fisk Mill
Cove

Salt Point
State Park Unit

Deadman Gulch

Tanbark Way

Canoe Gulch

Chinese Gulch

Kruse Rhododendron
State Natural Reserve

Kruse Ranch Rd

Plantation

Seaview Rd

Stump Beach

Miller Creek

PCF

Warren Creek

Salt Point State Park

Salt Point
State Marine
Conservation Area

Gerstle Cove
State Marine
Reserve

Salt Point

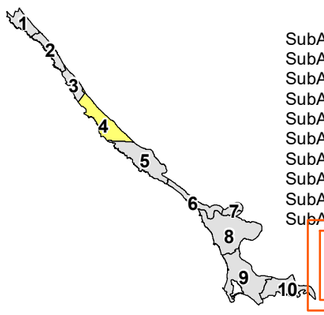
CTP

Gerstle Cove

Wildcat Creek

SubArea 5
Timber Cove/Fort Ross

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

SBP - Sand Beach/Sand Spit or Bar
PCF - Mendocino Pygmy Cypress Forest
Freshwater Herbaceous Wetland
Pond or Resorvoir
Oak Woodland
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

Base Map Layers

Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Natural Coastline
Highway
Road

Special Status Species Habitat Present in SubArea

Animals	Plants
California Giant Salamander	Blasdale's Bent Grass
Foothill Yellow-legged Frog	Bluff Wallflower
Monarch Butterfly	California Sedge
Obscure Bumble Bee	Coast Lily
Sonoma Arctic Skipper	Coastal Bluff Morning-Glory
Sonoma Tree Vole	Methuselah's Beard Lichen
	Perennial Goldfields
	Purple-Stemmed Checkerbloom
	Pygmy Cypress
	Short-leaved Evax
	Supple Daisy
	Swamp Harebell
	Woolly-Headed Gilia
	Woolly-headed Spineflower

Note:
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0 0.5 Miles
1 inch = 3,333 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-2d_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-2d
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 4
Salt Point

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Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

SubArea 4 Salt Point

Salt Point State Marine Conservation Area
Ocean Cove
SBP
Stockhoff Creek
Stillwater Cove Regional Park
Timber Cove Rd
Timber Cove Creek
Stillwater Cove**
Stillwater Cove*
Greater Farallones National Marine Sanctuary
Cormorant Point
Kolmer Gulch
Fort Ross State Historic Park
Fort Ross Rd
Timber Cove
Windermere Point
CTP
Fort Ross Creek
Northwest Cape
Fort Ross Cove
Mill Gulch
Fort Ross Terrace
Sonoma Coast State Beach
Timber Gulch
Jewell Gulch

SBP - Sand Beach/Sand Spit or Bar
CTP - Coastal Terrace Prairie
Freshwater Herbaceous Wetland
Pond or Reservoir
Oak Woodland
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

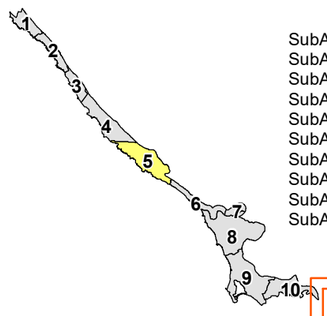
Base Map Layers

Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Special Status Species Habitat Present in SubArea

Animals	Plants
California Giant Salamander	Baker's Goldfields
Foothill Yellow-Legged Frog	Blasdale's Bent Grass
Monarch Butterfly	Coast Lily
Obscure Bumble Bee	Coastal Bluff Morning-Glory
Osprey	Marsh Pea
Sonoma Tree Vole	Methuselah's Beard Lichen
	Perennial Goldfields
	Purple-Stemmed Checkerbloom
	Rose Leptosiphon
	Short-Leaved Evax
	Sonoma Spineflower
	Woolly-Headed Gilia

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

DRAFT

SubArea 6
High Cliffs/Muniz-Jenner

FIGURE C-OSRC-2e
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 5
Timber Cove/Fort Ross

Note:
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Stillwater Cove* = location according to County of Sonoma
Stillwater Cove** = location according to U.S. Geological Survey Map

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0 0.5 Miles
1 inch = 3,000 feet

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Environmentally Sensitive Habitat Areas (ESHA)

SubArea 5 Timber Cove/ Fort Ross

Jewell Gulch

Meyers Grade Rd

Sonoma Coast State Beach

Greater Farallones National Marine Sanctuary

Jenner Headlands

Jenner Beach

Fish Head Beach

Russian River State Marine Conservation Area

Russian River

Jenner

Russian River State Marine Recreational Management Area

Sheephouse Creek

Sawmill Gulch

SubArea 8
Pacific View/Willow Creek

Special Status Species Habitat Present in SubArea

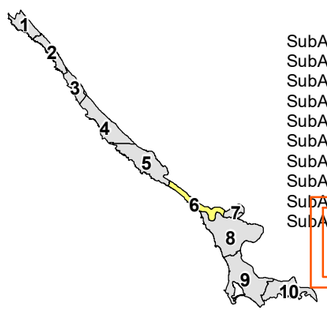
Animals
American Badger
Bank Swallow
California Giant Salamander
California Red-Legged Frog
Double-Crested Cormorant
Longfin Smelt
Sonoma Tree Vole
Western Bumble Bee
Western Pond Turtle

Plants
Blue Coast Gilia
Coastal Bluff Morning-glory
Congested-headed Hayfield Tarplant
Deceiving Sedge
Hoffman's Bristly Jewel-Flower
Marin Checkerbloom
Minute Pocket Moss
Pacific Gilia
Perennial Goldfields
Serpentine Daisy
Short-leaved Evax
Tidestrom's Lupine
Woolly-Headed Gilia

Coho Salmon
Steelhead Trout
Chinook Salmon
Freshwater Herbaceous Wetland
Pond or Resorvoir
Tidal Salt Marsh
Oak Woodland
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Eelgrass Bed
Kelp Canopy
Kelp Subsurface
Riparian Corridor

Base Map Layers
Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

Notes:
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0 0.5 Miles

1 inch = 2,750 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-OSRC-2f_PR.mxd Date: 6/3/2019

FIGURE C-OSRC-2f
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 6
Highcliffs/Muniz-Jenner

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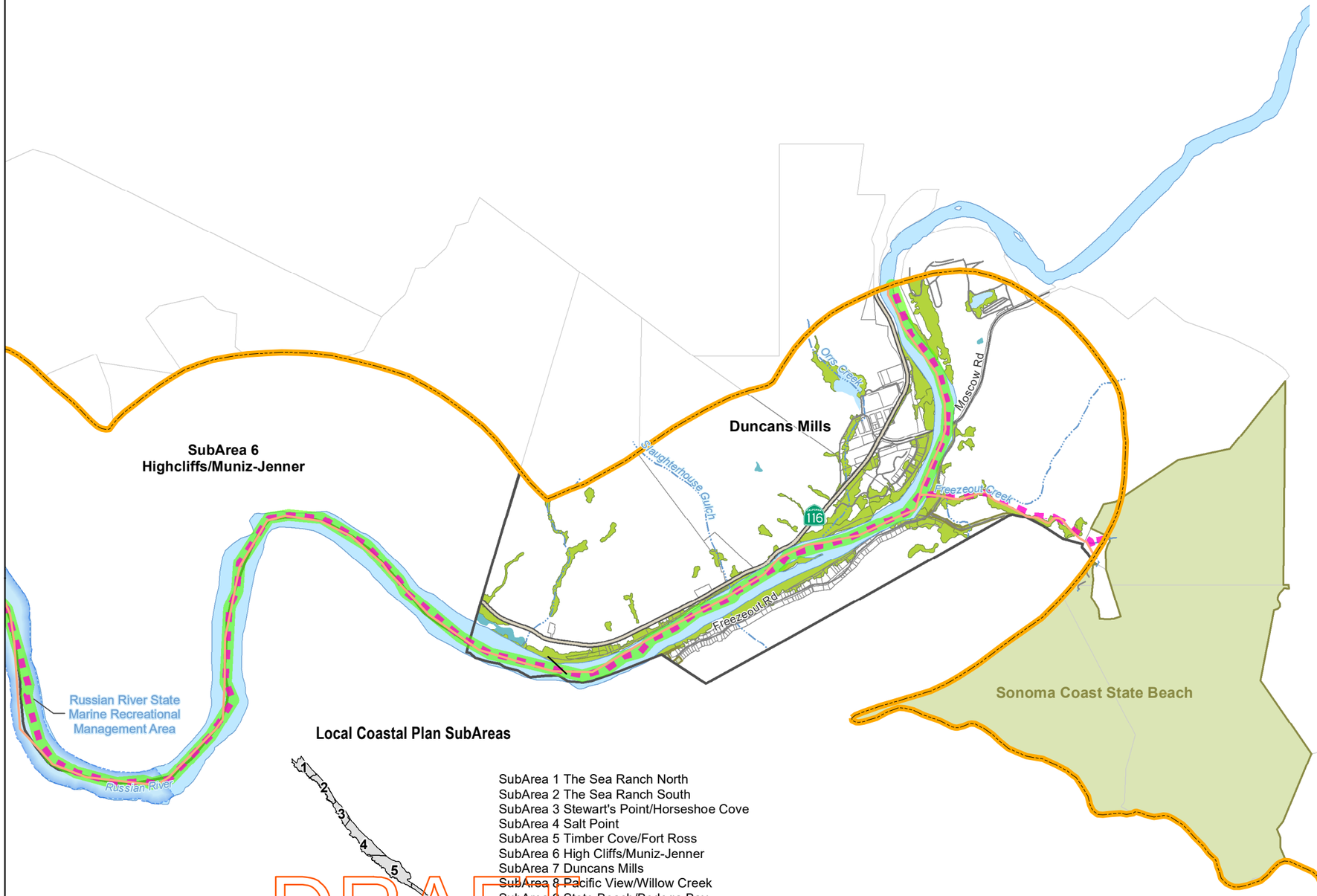
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)



Coho Salmon
Steelhead Trout
Chinook Salmon
Freshwater Herbaceous Wetland
Pond or Reservoir
Riparian Woodland
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

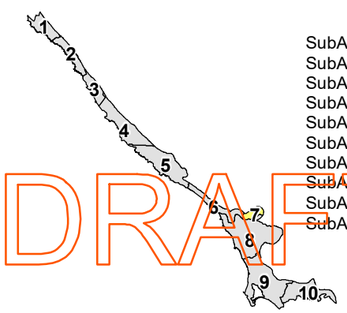
Base Map Layers

Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Special Status Species Habitat Present in SubArea

Animals	Plants
Bank Swallow	Napa False Indigo
California Giant Salamander	Point Reyes Checkerbloom
Great Blue Heron	Sonoma Alopecurus
Osprey	Swamp Harebell
Sonoma Tree Vole	
Western Pond Turtle	

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

SubArea 8
Pacific View/Willow Creek

FIGURE C-OSRC-2g
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 7
Duncans Mills

Note:
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0 0.25 Miles

1 inch = 2,167 feet

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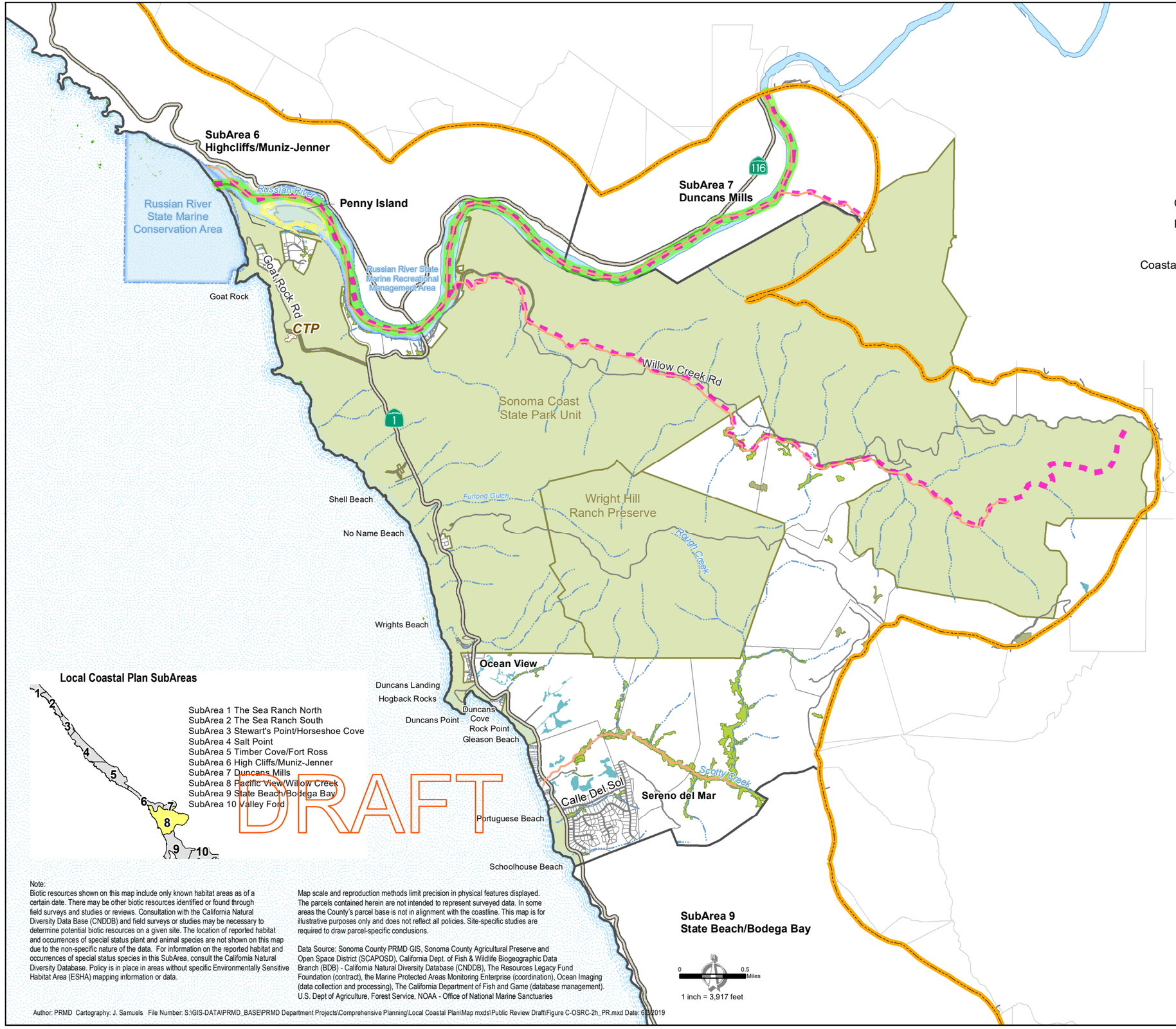
Environmentally Sensitive Habitat Areas (ESHA)



Base Map Layers

- Coastal SubArea
- Park/Public Land
- Parcel
- Coastal Zone Boundary
- Highway
- Road

- Coho Salmon
- Steelhead Trout
- Chinook Salmon
- CTP - Coastal Terrace Prairie
- Eelgrass Bed
- Freshwater Herbaceous Wetland
- Pond or Reservoir
- Tidal Salt Marsh
- Oak Woodland
- Riparian Woodland
- Greater Farallones National Marine Sanctuary
- State Marine Protected Area
- Kelp Canopy
- Kelp Subsurface
- Riparian Corridor

Special Status Species Habitat Present in SubArea

Animals	Plants
American Badger	Baker's Larkspur
Bank Swallow	Blasdale's Bent Grass
California Giant Salamander	Bluff Wallflower
California Red-Legged Frog	Coastal Bluff Morning-Glory
Great Blue Heron	Minute Pocket Moss
Longfin Smelt	Napa False Indigo
Myrtle's Silverspot Butterfly	Perennial Goldfields
Obscure Bumble Bee	Purple-Stemmed Checkerbloom
Osprey	Short-Leaved Evax
Sonoma Tree Vole	Tidestrom's Lupine
Western Bumble Bee	
Western Pond Turtle	

Local Coastal Plan SubAreas

SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

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0 0.5 Miles

1 inch = 3,917 feet

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

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Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)

SubArea 8
Pacific View/Willow Creek

Local Coastal Plan SubAreas

SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

Greater Farallones National Marine Sanctuary
Carmet
Carmet Beach
Arched Rock
Arched Rock Beach
Coleman Beach
Miwok Beach
No Name Beach
North Salmon Creek Beach
South Salmon Creek Beach
Coleman Valley Rd
Salmon Creek
Salmon Creek Rd
Bay Hill Rd
Sonoma Coast State Park
Bay Flat Rd
Bodega Bay
Bodega Harbor
Westside Regional Park
Bird Walk Coastal Access Trail
Sea Way
Mussel Point
Bodega Head State Marine Reserve
Westside Rd
Bodega Marine Reserve and Laboratory
Heron Dr
Doran Beach
Doran Beach Regional Park
Campbell Cove
Bodega Head
Estero Ln
Estero Americano
Estero Americano State Marine Recreational Management Area
State Marine Conservation
SubArea 10
Valley Ford
Marin County

DRAFT

Coho Salmon
Steelhead Trout
Dunes
Bodega Harbor Tidal Flat
Eelgrass Bed
Freshwater Herbaceous Wetland
Pond or Resorvoir
Tidal Salt Marsh
Riparian Woodland
Greater Farallones National Marine Sanctuary
Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

Base Map Layers
Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Special Status Species Habitat Present in SubArea

Animals
American Badger
Bumblebee Scarab Beetle
Burrowing Owl
California Freshwater Shrimp
California Brackishwater Snail
California Red-Legged Frog
Eulachon
Fringed Myotis
Globose Dune Beetle
Hoary Bat
Long-eared Myotis
Longfin Smelt
Monarch Butterfly
Myrtle's Silverspot Butterfly
Obscure Bumble Bee
Tidewater Goby
Townsend's Big-eared Bat
Western Pond Turtle
Western Snowy Plover

Plants
Baker's Goldfields
Bent-flowered Fiddleneck
Blasdale's Bent Grass
Blue Coast Gilia
Bluff Wallflower
Bristly Sedge
Coastal Bluff Morning-Glory
Coastal Triquetrella
Congested-headed Hayfield Tarplant
Dark-Eyed Gilia
Fragrant Fritillary
Franciscan Onion
Franciscan Thistle
Golden Larkspur
Marin Knotweed
Mendocino Dodder
Napa False Indigo
Oregon Polemonium
Perennial Goldfields
Pink Sand-Verbena
Point Reyes Horkelia
Point Reyes Salty Bird's-Beak
Purple-Stemmed Checkerbloom
San Francisco Bay Spineflower
Scouler's Catchfly
Short-leaved Evax
Swamp Harebell
Thurber's Reed Ggrass
Tidestrom's Lupine
Western Leatherwood
Woolly-Headed Gilia
Woolly-Headed Spineflower

Note:
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0 0.5 Miles
1 inch = 3,583 feet

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-AOSRC-2i_PRmxd Date: 6/3/2019

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

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Environmentally Sensitive Habitat Areas (ESHA)

Coho Salmon
Steelhead Trout
DuneLand
Bodega Harbor Tidal Flat
Eelgrass Bed
Freshwater Herbaceous Wetland
Pond or Resorvoir
Tidal Salt Marsh
Riparian Woodland
Greater Farallones National Marine Sanctuary
State Marine Protected Area
Kelp Canopy
Kelp Subsurface
Riparian Corridor

Base Map Layers
Coastal SubArea
Park/Public Land
Parcel
Coastal Zone Boundary
Highway
Road

Special Status Species Habitat Present in SubArea

Animals
American Badger
Bumblebee Scarab Beetle
Burrowing Owl
California Freshwater Shrimp
California Brackishwater Snail
California Red-Legged Frog
Eulachon
Fringed Myotis
Globose Dune Beetle
Hoary Bat
Long-eared Myotis
Longfin Smelt
Monarch Butterfly
Myrtle's Silverspot Butterfly
Obscure Bumble Bee
Tidewater Goby
Townsend's Big-eared Bat
Western Pond Turtle
Western Snowy Plover

Plants
Baker's Goldfields
Bent-flowered Fiddleneck
Blasdale's Bent Grass
Blue Coast Gilia
Bluff Wallflower
Bristly Sedge
Coastal Bluff Morning-Glory
Coastal Triquetrella
Congested-headed Hayfield Tarplant
Dark-Eyed Gilia
Fragrant Fritillary
Franciscan Onion
Franciscan Thistle
Golden Larkspur
Marin Knotweed
Mendocino Dodder
Napa False Indigo
Oregon Polemonium
Perennial Goldfields
Pink Sand-Verbena
Point Reyes Horkelia
Point Reyes Salty Bird's-Beak
Purple-Stemmed Checkerbloom
San Francisco Bay Spineflower
Scouler's Catchfly
Short-leaved Evax
Swamp Harebell
Thurber's Reed Grass
Tidestrom's Lupine
Western Leatherwood
Woolly-Headed Gilia
Woolly-Headed Spineflower

FIGURE C-OSRC-2j
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 9
Bodega Bay Vicinity

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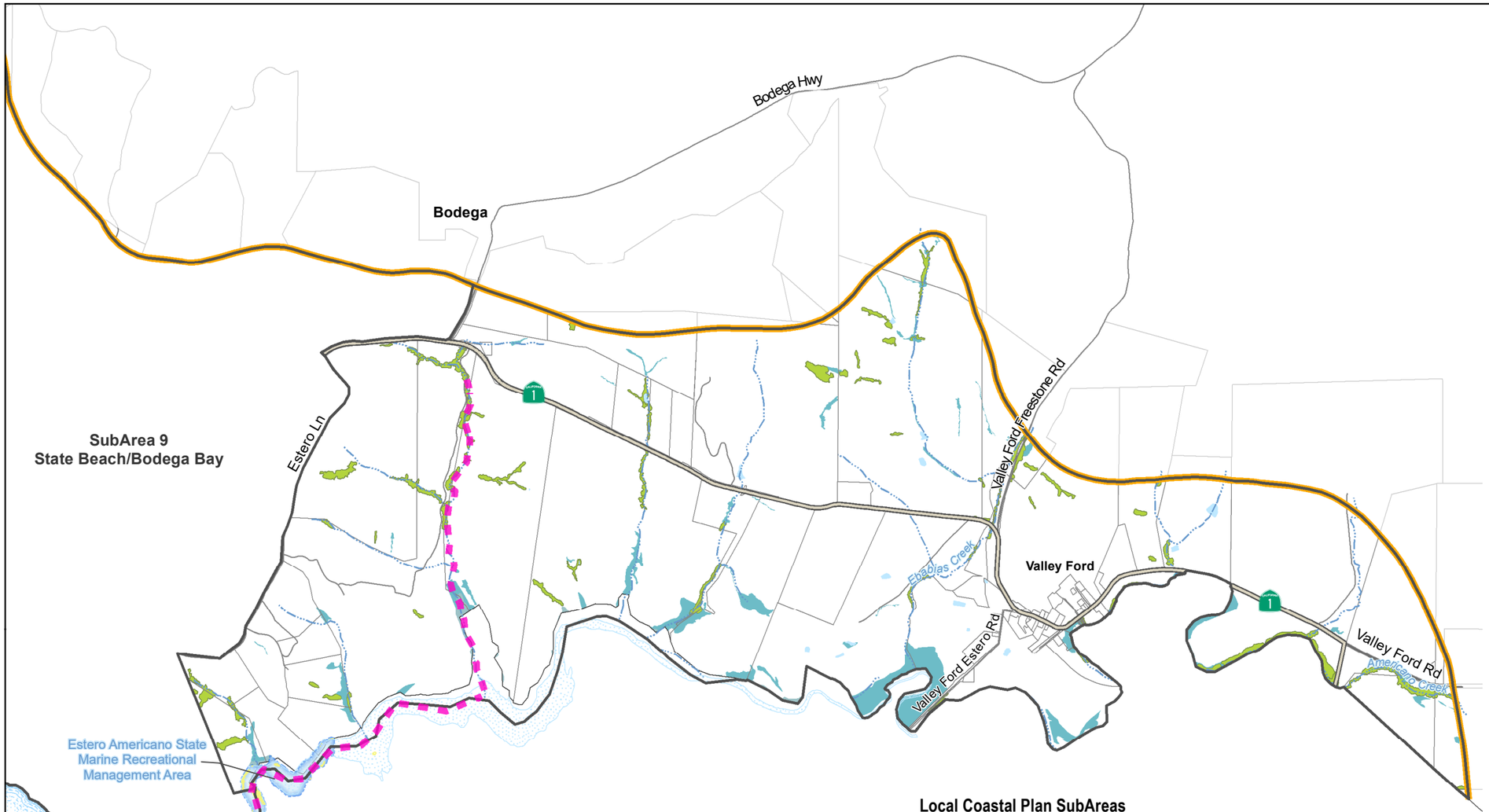
Notes:
Biotic resources shown on this map include only known habitat areas as of a certain date. There may be other biotic resources identified or found through field surveys and studies or reviews. Consultation with the California Natural Diversity Data Base (CNDDB) and field surveys or studies may be necessary to determine potential biotic resources on a given site. The location of reported habitat and occurrences of special status plant and animal species are not shown on this map due to the non-specific nature of the data. For information on the reported habitat and occurrences of special status species in this SubArea, consult the California Natural Diversity Database. Policy is in place in areas without specific Environmentally Sensitive Habitat Area (ESHA) mapping information or data.

Map scale and reproduction methods limit precision in physical features displayed. The parcels contained herein are not intended to represent surveyed data. In some areas the County's parcel base is not in alignment with the coastline. This map is for illustrative purposes only and does not reflect all policies. Site-specific studies are required to draw parcel-specific conclusions.

Data Source: Sonoma County PRMD GIS, Sonoma County Agricultural Preserve and Open Space District (SCAPOSD), California Dept. of Fish & Wildlife Biogeographic Data Branch (BDB) - California Natural Diversity Database (CNDDB), The Resources Legacy Fund Foundation (contract), the Marine Protected Areas Monitoring Enterprise (coordination), Ocean Imaging data collection and processing), The California Department of Fish and Game (database management). U.S. Dept of Agriculture, Forest Service, NOAA - Office of National Marine Sanctuaries

Author: PRMD Cartography: J. Samuels File Number: S:\GIS-DATA\PRMD_BASE\PRMD Department Projects\Comprehensive Planning\Local Coastal Plan\Map mxds\Public Review Draft\Figure C-ABOSRC-2_PRj.mxd Date: 6/3/2019

Sonoma County
Local Coastal Plan
Environmentally Sensitive Habitat Areas (ESHA)



- Steelhead Trout
- Eelgrass Bed
- Freshwater Herbaceous Wetland
- Pond or Resorvoir
- Tidal Salt Marsh
- Riparian Woodland
- Greater Farallones National Marine Sanctuary
- State Marine Protected Area
- Kelp Canopy
- Kelp Subsurface
- Riparian Corridor

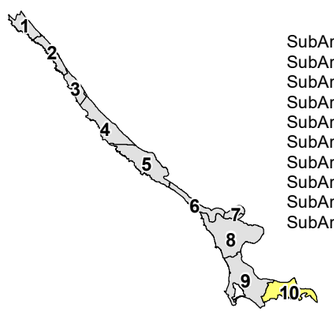
Base Map Layers

- Coastal SubArea
- Parcel
- Coastal Zone Boundary
- Highway
- Road

Special Status Species Habitat Present in SubArea

Animals	Plants
American Badger	Baker's Goldfields
Burrowing Owl	Congested-headed Hayfield Tarplant
California Red-Legged Frog	Fragrant Fritillary
Great Egret	Golden Larkspur
Longfin Smelt	Point Reyes Checkerbloom
Myrtle's Silverspot Butterfly	Two-fork Clover
Tidewater Goby	
Tricolored Blackbird	
Western Pond Turtle	

Local Coastal Plan SubAreas



SubArea 1 The Sea Ranch North
SubArea 2 The Sea Ranch South
SubArea 3 Stewart's Point/Horseshoe Cove
SubArea 4 Salt Point
SubArea 5 Timber Cove/Fort Ross
SubArea 6 High Cliffs/Muniz-Jenner
SubArea 7 Duncans Mills
SubArea 8 Pacific View/Willow Creek
SubArea 9 State Beach/Bodega Bay
SubArea 10 Valley Ford

DRAFT

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0 0.5 Miles

1 inch = 3,083 feet

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FIGURE C-OSRC-2k
Environmentally Sensitive Habitat Areas (ESHA)
SubArea 10
Valley Ford

Permit and Resource Management Department

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Local Coastal Program

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