PUBLIC REVIEW DRAFT

SONOMA COUNTY
LOCAL COASTAL PLAN

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
September XX, 2019

LOCAL COASTAL PLAN

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INTRODUCTION

1. AUTHORITY AND PURPOSE

1.1 Authority for and Administration of Local Coastal Plan

1.1.1 California Coastal Act

The California Coastal Act (Public Resources Code Section 30000 *et seq.*; Coastal Act) was passed by the State Legislature in 1976 and became effective on January 1, 1977. The Coastal Act replaced the original Coastal initiative, Proposition 20, passed in 1972. The Coastal Act transferred the responsibility of preparing a Local Coastal Program (LCP; consists of a Local Coastal Plan and an Implementation Plan) from the State and Regional Coastal Commissions to each of the 15 counties and 53 cities along the California Coast. Each jurisdiction is responsible for developing an LCP that covers a 20-year planning period and which brings local government plans and regulations, as well as those of all public agencies, into conformance with Coastal Act policies. The Coastal Act requires that LCPs be reviewed and updated every five years.

The purpose of this Local Coastal Plan Update is to retain existing land use designations certified by the California Coastal Commission, and to revise the Local Coastal Plan to reflect policies related to coastal development that were adopted by the Sonoma County Board of Supervisors in General Plan 2020. In addition, this Local Coastal Plan Update adds new information and policy in the following areas: sea level rise (2100 planning horizon), biotic resources, geologic hazards, water quality, and public access. The document has been re-organized to reflect General Plan 2020 format and includes previously certified Appendices, including the Housing Element, Right-to-Farm Ordinance, Historic Resources Inventory, and development guidelines specific to The Sea Ranch. This updated Local Coastal Plan considers growth on the Sonoma County Coast as projected considering continuation of historic population growth and anticipated increases in visitor-serving uses. Build-out is projected based on the continuation of existing zoning land use, density, and minimum parcel size for the period 2015 to 2035.

Below are the Sections of the California Coastal Act which state the Legislative findings and declarations regarding the goals of the State of California, for the Coastal Zone, ecological balance and economic development in the Coastal Zone, and the necessity of continued planning and management.

30001. Legislative findings and declarations; ecological balance.

The Legislature hereby finds and declares:

(a) That the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people and exists as a delicately balanced ecosystem.

(b) That the permanent protection of the state's natural and scenic resources is a paramount concern to present and future residents of the state and nation.

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

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

30001.2. Legislative findings and declarations; economic development.

The Legislature further finds and declares that, notwithstanding the fact electrical generating facilities, refineries, and coastal-dependent developments, including ports and commercial fishing facilities, offshore petroleum and gas development, and liquefied natural gas facilities, may have significant adverse effects on coastal resources or coastal access, it may be necessary to locate such developments in the coastal zone in order to ensure that inland as well as coastal resources are preserved and that orderly economic development proceeds within the state.

30001.5. Legislative findings and declarations; goals.

The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:

(a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.

(b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.

(c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.

(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.

(e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

30004. Legislative findings and declarations; necessity of continued planning and management.

The Legislature further finds and declares that:

(a) To achieve maximum responsiveness to local conditions, accountability, and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement.

(b) To ensure conformity with the provisions of this division, and to provide maximum state involvement in federal activities allowable under federal law or regulations or the United States Constitution which affect California's coastal resources, to protect regional, state, and national interests in assuring the maintenance of the long-term productivity and economic vitality of coastal resources necessary for the well-being of the people of the state, and to avoid long-term costs to the public and a diminished quality of life resulting from the misuse of coastal resources, to coordinate and integrate the activities of the many agencies whose activities impact the coastal zone, and to supplement their activities in matters not properly within the jurisdiction of any existing agency, it is necessary to provide for continued state coastal planning and management through a state coastal commission.

1.1.2 Local Coastal Programs

The California Coastal Act requires each local government lying, in whole or in part, within the Coastal Zone to prepare a "Local Coastal Program" for that portion of the Coastal Zone within its jurisdiction. Local Coastal Programs (LCPs) are basic planning tools used by local governments to guide development in the Coastal Zone, in partnership with the Coastal Commission. LCPs contain the ground rules for future development and protection of coastal resources. The LCPs specify the appropriate type, location, and scale of uses of land and water and applicable resource protection and development policies. Each LCP includes a "Land Use Plan" (LUP) and an "Implementation Plan" (IP) setting forth measures to implement the plan (such as zoning or ordinances). Prepared by local government, these programs govern decisions that determine the short-term and long-term conservation and use of coastal resources. While each LCP reflects unique characteristics of individual local coastal communities, regional and statewide interests and concerns must also be addressed in conformity with Coastal Act goals and policies. Following adoption by a city council or county board of supervisors, an LCP is submitted to the Coastal Commission for review for consistency with Coastal Act requirements.

This Local Coastal Plan is the "Land Use Plan", and the Coastal Zoning Ordinance is the "Implementation Plan" of the Sonoma County Local Coastal Program. Much of the existing Coastal Commission Certified Administrative Manual component of the Sonoma County Local Coastal Program has been incorporated into this updated Local Coastal Plan.

Goals and Policies

In adopting the California Coastal Act, the legislature declared that its basic goals were to:

(1) Protect, maintain, and where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and man-made resources.

(2) Assure orderly balanced utilization and conservation of Coastal Zone resources taking into account the social and economic needs of the people of the state.

(3) Maximize public access to and along the Coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.

(4) Assure priority for coastal-dependent and coastal-related development over other development on the Coast.

(5) Encourage State and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the Coastal Zone.

The Coastal Act established a framework for guiding development and preserving sensitive resources in the Coastal Zone. Through its policies, it sets up a land use priority system which gives the highest priority to the preservation and protection of environmentally sensitive habitats and prime agricultural land and timberland. The Coastal Act states that the maximum amount of prime resource land shall be maintained in production, and that only resource dependent uses may be allowed in sensitive habitats. On shoreline lands which are not sensitive habitats or prime agricultural land or timberland, development which requires a site on or adjacent to the sea has the next priority. On lands not needed for any of the above, the next priority goes to public recreation and visitor-serving facilities. Private development is permitted after all these priorities have been considered. **Table C-INT-1** shows the priority of coastal land uses under the Coastal Act.

Table C-INT-1: Priority of Coastal Land Uses

	Undeveloped areas		Developed areas
High	Agriculture (Prime coastal dependent), forestry (productive timberland), coastal dependent public recreation [30213, 30241, 30242, 30243, 30250(a), 30250(b)].	Coastal dependent[1] public recreation [30213, 30220, 30221]	Coastal dependent industry and commerce, commercial fishing, coastal dependent public recreation and special communities [30213, 30234, 30250(a), 30250(b), 302.53-5, 30255]
Priority of Use		Water dependent[1] public recreation [30220, 30221, 30223]	
		Non-coastal[1] or non-water dependent public recreation [30220, 30221]	
		Visitor-serving[1] commercial recreation, lower cost [30222, 30213, 30250 (c)	
		Visitor-serving[1] commercial recreation, higher cost [30222, 30250 (c)	
Low			Affordable, low, and moderate income residential, general industrial, or commercial development[2] [30222, 30250, 30255]

Notes:

1 Recreational uses of the coast that do not require extensive alteration of the natural environment have priority in intertidal and waterfront areas over recreational uses that would result in substantial alteration of the natural environment [30233, 30235, 30255]

2 Concentration of development policies [30250(a)] limit development in rural areas, except public recreation and visitor-serving uses.

1.1.3 Administration and Interpretation

After a Local Coastal Program has been certified by the Coastal Commission, coastal permitting authority over most new development is transferred to the local government, which applies the requirements of the Local Coastal Program in reviewing proposed new developments. The Coastal Commission retains permanent coastal permit jurisdiction over development proposed on tidelands, submerged lands, and public trust lands; and the Commission also acts on appeals from certain local government costal permit decisions.

All land use and development decisions in the Coastal Zone must be consistent with the Local Coastal Program. In the Coastal Zone, the Local Coastal Program supersedes and takes precedence over other local plans, policies, and regulations. In authorizing coastal development permits after Local Coastal Program certification, the County must make the finding that the development conforms to the certified Local Coastal Program as well as all other findings required by the Coastal Zoning Ordinance.

The following general principles provide the framework for administration and interpretation of the Local Coastal Plan:

(1) The policies of Chapter 3 of the California Coastal Act (California Public Resources Code Sections 30210 through 30264) shall guide interpretation of the Local Coastal Plan.

(2) Where policies within the Local Coastal Plan overlap or conflict, the policy which is the most protective of coastal resources shall take precedence.

(3) Prior to the issuance of any development permit required by the Local Coastal Plan, the County shall make the finding that the development meets the standards set forth in all applicable Local Coastal Plan policies and Coastal Zoning Ordinance regulations.

(4) Prefacing discussion in text is intended as justification for the enumerated Local Coastal Plan policies and map designations. Therefore, the text shall be considered as the findings justifying the specified policies and Land Use and Open Space Map designations.

(5) The polices contained herein bind the County's actions and establish the standard of review for determining whether land use and development decisions and zoning changes are consistent with the Local Coastal Plan.

1.1.4 Appeals

Certain types of development, as well as development within certain geographic areas that are acted on by the County after certification of the LCP, are appealable to the Coastal Commission (Public Resources Code Section 30603). These include:

(1) Developments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greatest distance.

(2) Developments approved by the local government not included in the above, located on tidelands; submerged lands; public trust lands; within 100 feet of any wetland, estuary, stream; or within 300 feet of the top of the seaward face of any coastal bluff.

(3) Development approved by the local government not included above that are located in a sensitive coastal resource area.

(4) Any development approved by the local government that is not designated as the principal permitted use in the Coastal Zoning Ordinance.

(5) Any development which constitutes a major public works project or a major energy facility (whether approved or denied by the local government).

1.2 History of the Local Coastal Plan

The process of preparing the Sonoma County Local Coastal Plan began in 1978, and from the beginning included strong citizen participation. Technical and Citizen Advisory Committees were established, with citizens appointed by the Board of Supervisors to assist staff in developing the Local Coastal Plan. Public meetings were held to discuss the major issues on the Sonoma County Coast, including shoreline access, transportation, harbor development, environmental protection, housing, and future development. Over several years the committees met and developed the Local Coastal Plan and policies with public input. During that time the California Coastal Commission retained review authority over all coastal development.

The Draft Local Coastal Plan was completed and adopted by the Board of Supervisors in May 1980, certified by the Coastal Commission in December 1980, and became effective in January 1981. However, adoption and certification of The Sea Ranch portion of the Local Coastal Plan was deferred due to disagreement about public access and pending litigation between the developer Oceanic and the Coastal Commission. Following resolution of these issues with a settlement agreement, the County developed the Land Use Plan for The Sea Ranch. In 1982 the Coastal Commission certified The

Sea Ranch portion of the Local Coastal Plan and the LCP implementation plan that included the Administrative Manual and the Coastal Zoning Ordinance.

In 1989 the County adopted a new General Plan, which directed the County to update and revise the Local Coastal Plan to be consistent with the new General Plan. In 1993, 1995, 1999, and 2001 the Coastal Commission certified amendments to the Local Coastal Plan, which adopted technical changes to ensure consistency with the General Plan. Minor corrections were made to the Land Use Plan and revisions were made to all chapters for internal consistency. In 2001 the Coastal Zoning Ordinance was changed significantly based on the format and style of the Countywide Zoning Ordinance, while retaining provisions that were specific to the Coastal Zone.

In 2001 the County started revising and updating the 1989 General Plan and simultaneously the Local Coastal Plan. The County's intent was to incorporate all pertinent policies of the updated General Plan into the updated Local Coastal Plan, and to develop the Sonoma County Local Coastal Plan as a document separate from the General Plan which specifically addresses the Sonoma Coast/Gualala Basin Planning Area, which includes the Coastal Zone. The primary purpose of the updated General Plan was to conduct a policy review which focused on specific issues that were of paramount importance to County communities. The broad purpose of General Plan 2020 is to express policies which will guide decisions on future growth, development, and conservation of resources through 2020 in a manner consistent with the goals and quality of life desired by County residents.

The County adopted Sonoma County General Plan 2020 on September 23, 2008. Accordingly, the Local Coastal Plan Update incorporates applicable General Plan 2020 goals, objectives, and policies; and includes objectives and policies unique to the Coastal Zone and the larger Sonoma Coast/Gualala Basin Planning Area.

2. REGIONAL AND LOCAL CONTEXT

2.1 Regional and Sonoma County Coast Setting

Sonoma County, the most northerly of the nine counties in the San Francisco Bay Region, is located along the Pacific coastline about forty miles north of San Francisco and the Golden Gate Bridge. The County is just over 1500 square miles, making it the largest of the nine Bay Area counties.

Sonoma County is bordered by the Pacific Ocean on the west; Marin County and San Pablo Bay to the south; Solano, Napa, and Lake Counties to the east; and Mendocino County to the north. Because of the geographic configuration and topography of the

North Bay area, transportation linkages to adjacent counties are limited to a few routes. The U.S. Highway 101 Freeway is the major north-south route, connecting Sonoma County to San Francisco and Marin Counties on the south and to Mendocino County on the north.

The Sonoma County Coastal Zone is a landscape of unsurpassed variety and beauty. Much of the area is encompassed within federal, state, and county parks, which provide habitat protection and opportunities for public recreation. The Coastal Zone also includes several small communities, productive agriculture areas, scattered residences, visitor serving commercial areas, and significant amounts of open space. The Sonoma County Local Coastal Program is designed to preserve the unique environment of the Coastal Zone and to encourage the protection and restoration of its coastal resources, while encouraging public enjoyment of its coastal recreation opportunities.

The Local Coastal Plan covers the area referred to in the Sonoma County General Plan as the Sonoma Coast/Gualala Basin Planning Area. The Planning Area runs the 40-mile length of the Pacific Coast margin from the Gualala River to the Estero Americano. In addition to several coastal communities, it extends inland to include Annapolis, Cazadero, Duncans Mills, Bodega, Freestone, Camp Meeker, and Occidental. Roughly paralleling the San Andreas Fault Zone, the rugged Sonoma Coast is a scenic area of regional, State, and National significance, with nearly vertical sea cliffs and sea stacks along the shoreline, dunes, marine terraces, coastal uplands, and headlands. In the north, the Gualala River South Fork extends inland into the coniferous forests of the western Mendocino Highlands.

The Coastal Zone portion of the Planning Area is 55 miles in length and extends inland generally 1000 yards from the mean high tide line. In significant coastal estuarine habitat and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea. The Coastal Zone boundary is generally 3000 to 12,000 feet inland from the shoreline, except around Duncans Mills, Willow Creek, and Valley Ford, where it extends up to five miles inland along the Russian River corridor and the Estero Americano.

The Sonoma Coast/Gualala Basin Planning Area is the most sparsely populated of the nine planning regions due to its relative remoteness and inaccessibility. The Sonoma County General Plan 2020 Land Use Element projects 3,283 new residents for the entire Planning Area however, population is expected to decline in the coastal zone. In 2018 and 2023 the populations are, an estimated 3,427 and 3,359 residents in the coastal zone, most occupants live in various small villages. (Permit Sonoma GIS Community Profile) Outside of these communities, rural settlement is very sparse. The region's

economy is primarily oriented to recreation and tourism, commercial fishing, timber production, and sheep ranching. Residences, originally planned as second homes, including The Sea Ranch and Bodega Harbor, are now increasingly occupied by permanent residents. In addition, many residences are also occupied as home based businesses. The greatest gains in employment are associated with the recreation and tourism industries.

2.2 History of Sonoma County Coastal Protection by Citizens

Sonoma County citizens have played a pivotal role in the establishment of the California Coastal Commission, and have been leaders in coastal protection.

In Northern California, contemporary awareness of the need for coastal protection began with the attempt by Pacific Gas and Electric Company (PG&E) in 1962 to build a nuclear power plant on Bodega Head. The project was defeated due to work by a local and statewide opposition and the presence of the San Andreas Fault on the site. PG&E abandoned the site and left the excavation for the nuclear reactor as a water-filled "Hole in the Head".

In the mid to late 1960s, industrial projects, housing developments, and other projects which threatened the California coast began to multiply: 1) five additional power plant sites were proposed; 2) the mouth of the Russian River was to be dredged for gravel to construct Bay Area Rapid Transit (BART); 3) coastal wetlands were being filled or dredged for new marinas; 4) public views and access to beaches were eliminated due to construction of miles of beach houses along the Malibu coastline; 5) public access to 10 miles of the Sonoma County Coast were to be eliminated for The Sea Ranch second home development; 6) the City of Long Beach ruled that all new buildings along the most scenic coastal roadway be high-rise structures; and 7) the last straw, a blowout from an oil drilling platform off the Santa Barbara coast in January 1969. The result was a huge public outcry for greater protection of the California coast.

2.2.1 COAAST, Coastal Access Initiative, and Dunlap Bill

In 1968 activists in Sonoma County, challenged by The Sea Ranch precedent of privatization of the coast, had formed Californians Organized to Acquire Access to State Tidelands (COAAST).

They proceeded to mount the "Coastal Access Initiative" that would require public access whenever coastal property was developed. The initiative lost to a massive campaign investment by The Sea Ranch developers.

Two years later, Assemblyman John Dunlap was successful in passing Assembly Bill 493 (Dunlap Bill) that carried out the Coastal Access Initiative language for the whole state. Under the Dunlap Bill, no county shall approve either the tentative or final map of any subdivision fronting on the coastline or shoreline which does not provide or have available reasonable public access by fee or easement from the public highway to the ocean or bay shoreline.

2.2.2 Coastal Alliance and Proposition 20

The Coastal Access Initiative also caught the attention of Assemblyman Alan Sieroty, who with Assemblyman Dunlap came to Sonoma County to hold Assembly hearings on The Sea Ranch and to ask COAAST to organize statewide all the groups involved in coastal protection. Sonoma County's Bill Kortum of COAAST created a statewide network of coastal protection activists (the Coastal Coalition comprised of 12 environmental groups), which in 1970 advocated for a bill to establish a commission for the California coast. The Coastal Coalition morphed into the Coastal Alliance, comprised of 110 environmental groups interested in saving the California coast, chaired by Kortum.

In 1971 and 1972, Assemblymen Sieroty and Dunlap introduced Assembly Bill 1471 (AB 1471) to protect the entire California coast. Their idea was to introduce legislation to create a Coastal Commission to address statewide concerns for coastal protection. They advocated the equivalent of a State planning commission with the police power of zoning for the California Coast superseding local jurisdictions. Competing bills emphasized local rather than state control. For three years legislation passed through the State Assembly but not the Senate Committee. The heavy lobbying from the energy sector, California Real Estate Association, County Supervisors' Association, League of California Cities, and many others was effective in defeating the legislation calling for a Coastal Commission.

Recognizing that legislative efforts were going nowhere, the Coastal Alliance, with assistance from attorney Peter Douglas of Assemblyman Sieroty's staff and attorney Lew Reid, wrote a ballot initiative measure known as Proposition 20 (California Coastal Zone Conservation Act of 1972) containing the main language of Sieroty and Dunlap's AB 1471. Proposition 20 appeared on the November 7, 1972 ballot and was approved by voters.

The State Commission established by the measure had twelve members appointed equally by the Governor, the Senate, and the Assembly. Using the same appointment procedure, five coastal regional commissions were established to hold hearings and issue local permits. The State Commission was to serve as an appeals body for regional commission decisions. The State Commission, with input from the regional commissions,

was to develop a California Coastal Plan to be adopted by the California Legislature in 1976, at which time the Commission was to be made a permanent institution.

In 1976 the Legislature voted with a narrow margin to carry out the mandate of Proposition 20 with two significant additions. To satisfy local government, the Legislature mandated that coastal counties and cities develop a local coastal plan that met the criteria of the California Coastal Plan developed by the California Coastal Commission. The California Coastal Conservancy was created and appropriated money to buy coastal land and help develop trails and public access and conduct habitat restoration.

2.2.3 Coastwalk California

Coastwalk originated in 1985 at the instigation of longtime Sonoma County coastal activists Bill and Lucy Kortum. They proposed a trek along the Sonoma County Coast to draw awareness of public access and coastal preservation needs, and to publicize the fact that the California Coastal Act calls for a continuous coastal trail the length of California. That first Coastwalk was planned and led by Tom and Vivian McFarling, Sonoma County environmental activists. It was so popular that it was repeated again and became an annual event in Sonoma County, later spreading to other counties. By 1990 longtime Sonoma County volunteer Richard Nichols became Executive Director of Coastwalk, and with the help of his wife Brenda, Coastwalk grew and prospered, eventually putting on walks in each of the 15 California coastal counties.

In 2008 Coastwalk renamed itself Coastwalk California to reflect its statewide network. The Coastwalk California mission is "To ensure the right of all people to reach and responsibly enjoy the California coast. We are a California-wide non-profit organization that advocates for coastal protection and access via the California Coastal Trail and offers fun and educational walking tours." The Coastwalk California 2013 website states: "Today, with the help of dedicated volunteers, Coastwalk continues its legacy of thousands of people to the natural and human history of the spectacular California coastal landscape and helping to promote its conservation."

2.2.4 Sonoma Land Trust

The Jenner Headlands Preserve (formerly the Rule Ranch), acquired by the Sonoma Land Trust in December 2009, is 5,630 acres of a mosaic of redwood and Douglas fir forests, oak woodland, chaparral, and coastal prairie located north of the town of Jenner where the Russian River meets the Pacific Ocean. The property adjoins State Route 1 for 2.5 miles adjacent to Sonoma Coast State Park just north of the Russian River Estuary. Acquisition of the Jenner Headlands Preserve was financed by the Sonoma County Agricultural Preservation & Open Space District, California Coastal

Conservancy, California Wildlife Conservation Board, Coastal and Estuarine Land Conservation Program of the National Oceanic and Atmospheric Administration, Forest Legacy Program of the U.S. Forest Service, and private foundations. Ownership of the preserve was transferred to the Wildlands Conservancy in September 2013.

In 1997 and 2001, the Sonoma Land Trust, in partnership with the California Coastal Conservancy and Sonoma County Agricultural Preservation & Open Space District, acquired portions of the Estero Americano Preserve, over 120 acres surrounding the tidal estuary that forms the border between Sonoma and Marin Counties. Part of the Gulf of the Farallones National Marine Sanctuary, the Estero Americano Preserve is one of the most important biological areas on the northern California Coast. The Preserve contains a variety of habitat types, including coastal brackish marsh, freshwater seep, coastal prairie, perennial grassland, and northern coastal scrub; and is a key coastal area for numerous plant and animal species of concern.

2.2.5 Other Organizations

Other organizations that have been involved in coastal protection in Sonoma County include:

(1) Bodega Land Trust
(2) LandPaths
(3) Save Penny Island
(4) Save the Redwoods League
(5) Sierra Club
(6) Sonoma County Conservation Action
(7) Sonoma County Surfriders
(8) Stewards of the Coast and Redwoods
(9) Wildlands Trust

2.3 Intergovernmental Planning Coordination

Sonoma County has a particular interest in coordination of land use, infrastructure, and environmental protection with other local, state, federal, and tribal governmental jurisdictions within the County. This Local Coastal Plan Update is generally compatible with the plans and policies of the nine cities and jurisdictions established by other government agencies. The County also acknowledges both the presence of federally-recognized tribal governments within Sonoma County, and the need for communication and coordination with federal and tribal governments, where development of tribal and non-tribal land is proposed and where tribes seek to acquire new trust land.

The Local Coastal Plan Update also considers the policies and concerns of adjacent counties and regional agencies, such as the San Francisco Bay Conservation and Development Commission, the Bay Area Air Quality Management District, the Northern

Sonoma County Air Pollution Control District, the Bay Area Water Quality Control Board, the North Coast Regional Water Quality Control Board, the Sonoma County Water Agency, the California Coastal Commission, the Coastal Conservancy, and others. The text of the various Elements notes those situations where these agencies have particular responsibilities that affect the physical development of the Sonoma County Coast and approval of permits.

2.3.1 Consultation and Coordination with Mendocino County

A travel website advertising the allure of the Mendocino and Sonoma County Coasts tells the reader that "Gualala" is a Native American word meaning "where the waters meet." Indeed, the northern Sonoma Coast meets the southern Mendocino Coast at the Gualala River. The river estuary and mouth is the southern border of the Gualala town area, a year-round working community of several hundred residents that serves the retail needs of the surrounding region, known as "Mendonoma." South of Gualala lay the Sonoma County communities of The Sea Ranch, Annapolis, Stewarts Point, Timber Cove, and Fort Ross. North of Gualala lay the Mendocino County communities of Anchor Bay, Point Arena, Manchester, Irish Beach, and Elk. Much is shared and linked across County lines in this region, from public services to commercial economies to Gualala River water quality issues. Therefore, it is necessary that Sonoma and Mendocino Counties consult and coordinate in implementation of their Local Coastal Plans.

Public Services. Law enforcement services in Mendonoma are provided by the Mendocino County and Sonoma County Sheriff's Departments and the California Highway Patrol. Fire protection services are provided by local volunteer fire departments and the California Department of Forestry and Fire Protection. Redwood Coast Medical Services provides primary and preventative medical services and urgent care to the northern California Coast from Timber Cove north to Irish Beach in Mendocino County. Facilities consist of a main medical clinic in Gualala, dental and selected medical clinic in Point Arena, and counseling and outreach services at another clinic in Gualala that used to be in Stewarts Point. The Coast Life Support District is a special tax district charged with providing basic and advanced life support ambulance services and responding to calls involving including fires, vehicle accidents, hazardous materials incidents, and requests from law enforcement officers over 270 square miles in Sonoma and Mendocino Counties. High School students from The Sea Ranch and Stewarts Point in Sonoma County attend Point Arena High School in Mendocino County.

Economies. The economies of the northern Sonoma Coast and southern Mendocino Coast are interactive and inter-dependent, especially between The Sea Ranch and Gualala, based primarily on tourism and visitor support services, building trades, various

cottage industries, home-based enterprises using telecommuting technologies, forestry-related jobs, and real estate.

Gualala River. Most of the 40-mile Gualala River is in Sonoma County, but a portion is in Mendocino County. For its last few miles, it forms the boundary between the two counties. The river provides recreation; municipal and industrial water supply for the community of Gualala; drinking water for The Sea Ranch community; and wildlife habitat including cold freshwater habitat for migration and spawning of coho salmon and steelhead trout, two fisheries of concern in northern California.

The primary land uses in the Gualala River watershed are timber production and grazing. About 34 percent of the watershed is owned by timber companies. The main issues for the Gualala River and its tributaries are excess sedimentation and elevated water temperature. Logging and road construction/maintenance have greatly increased the amount of sedimentation in the river and its tributaries. A North Coast Regional Water Quality Control Board analysis in 2000 found that compared to natural sources, human activities account for about two-thirds of the sediment load in the watershed. The Gualala River Watershed Council in 2008 estimated that 85 percent of the human-caused sediment sources impacting the river result from improperly constructed/maintained timber and ranch roads. Logging in the watershed has also resulted in degradation of salmon and trout habitat as a result of removal of large streamside trees that provide shade, increasing water temperature; and reducing woody debris that creates spawning pools.

Today hillside vineyard development is becoming an increasing threat to water quality and fish habitat as more steep land is converted to vineyards, increasing the sediment load in the river; and stream flow is decreased as water from wells or shallow gravel aquifers connected to the river or its tributaries is used for vineyard irrigation in dry periods.

2.4 Adaptation to Change

On the Sonoma County Coast, change is both here and now and also lies ahead of us. It comes as a result of climate change in the form of progressive inundation and increased flooding of low-lying areas which contain some of our roads, trails and beaches, and commercial developments; and in the form of as yet undetectable changes in the kind of crops we can grow, our farming success, and the types of our natural habitats and their use by wildlife. It also comes in the shape of a significant downturn in the national, state, and local economies which has resulted in lost houses and jobs, increased unemployment and decreased wages, and lower quality of life. And

our state's demographics are changing - many of its cities and counties are rapidly aging, the inland areas are growing faster than coastal regions, and ethnic diversity is increasing. Our Sonoma County Coast will not be, look, or feel the same in 100 years.

With the release of our updated Local Coastal Plan comes the need for our communities to adapt to these changes and others we don't anticipate. As H.G. Wells said, "Adapt or perish, now as ever, is nature's inexorable imperative." As Charles Darwin said, "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change." But according to Stephen Hawking, who is more representative of our technological age, "Intelligence is the ability to adapt to change." Therefore, more importantly than strength and humor, we will need intelligence to approach and adapt to these changes in our coastal natural, physical, social, and economic environments. And the future looks bright, because here in Sonoma County we have intelligence in our communities; an intelligence that will continue to grow and allow us to adapt; for as Wendy Carlos (an American composer and electronic musician) once said, "As human beings we do change, grow, adapt, perhaps even learn and become wiser."

3. ORGANIZATION AND OVERVIEW

3.1 Local Coastal Plan Format

The previous Local Coastal Plan consisted of the following 6 Chapters:

(1) Historical
(2) Environment and Hazards
(3) Resources (Agriculture and Timber)
(4) Recreation
(5) Harbor
(6) Development (Housing, Public Services, Transportation, Visual, Land Use)

This Local Coastal Plan Update consists of the following 9 Elements:

(1) Land Use
(2) Agricultural Resources
(3) Open Space and Resource Conservation
(4) Public Access
(5) Water Resources

(6) Public Safety

(7) Circulation and Transit

(8) Public Facilities and Services

(9) Noise

Table C-INT-2 shows the Chapters and Sections of the previous Local Coastal Plan which correspond to the Elements of this Local Coastal Plan Update. For example, the Land Use Section of the Development Chapter of the previous Local Coastal Plan corresponds mainly to the Land Use Element but also to the Public Facilities and Services, Open Space and Resource Conservation, and Public Access Elements of this Local Coastal Plan Update.

Table C-INT-2: Correspondence of Previous Local Coastal Plan Chapters and Sections with Local Coastal Plan Update Elements

Previous Local Coastal Plan Chapter - Section	**Local Coastal Plan Update Element(s)** (primary Element **- bold**)
Development - Land Use	**Land Use** Public Facilities and Services Open Space and Resource Conservation Public Access
Development - Public Services	**Public Facilities and Services** Water Resources
Development - Transportation	**Circulation and Transit**
Development - Visual Resources	**Open Space and Resource Conservation**
Environment - Environmental Hazards	**Public Safety** Water Resources
Environment - Environmental Resources	**Open Space and Resource Conservation**
Harbor	**Open Space and Resource Conservation** Public Access
Historic Resources	**Open Space and Resource Conservation**
Recreation	**Public Access**
Resources	**Open Space and Resource Conservation** Agricultural Resources Water Resources Land Use Public Safety

3.1.1 SubAreas

The Sonoma County Coast has been divided into 10 SubAreas for ease of discussion and analysis in the Local Coastal Plan, particularly for the issues of land use, public access, and recreation:

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

3.2 Local Coastal Plan Elements

3.2.1 Policies, Programs and Other Initiatives

A policy is a specific statement in text or a diagram guiding and implying clear commitment to an action. It is a mandatory declaration of an obligation intended specifically to govern the approvability of permit applications. This Local Coastal Plan includes "Other Initiatives," which are non-binding and/or advisory statements of intent, encouragement, or pledges of support for specific endeavors, programs, or outcomes; and which may set guidelines and priorities for County actions. Programs as identified in this Local Coastal Plan are necessary or potential steps for implementation of the Local Coastal Program; for example, further study and development of plans of ordinances.

Policies bind the County's actions and establish the standards of review for determining whether land use and development decisions, zoning changes, or other County actions are consistent with the Local Coastal Plan. Approved developments must be found consistent with all Local Coastal Plan policies. A development project's demonstrated inconsistency with a Local Coastal Plan policy is the basis for denying a proposed development or appealing a permit action.

It is important to note that significant differences exist between the State General Plan law and the Coastal Act with respect to how policies are to be read and interpreted. For example, development projects are typically required to be found consistent on balance with an overall or comprehensive reading of the General Plan's policies. In contrast, the Coastal Act requires that development projects in the Coastal Zone must be found to be consistent with all of the policies and standards of the Local Coastal Program, in this case the Sonoma County Local Coastal Plan and Coastal Zoning Ordinance.

This Local Coastal Plan incorporates those General Plan 2020 goals, objectives, and policies which are applicable to the Coastal Zone; and incorporates as policies the "Recommendations" in the previous Local Coastal Plan. In some cases, the wording of these policies has been revised for clarity and to accurately reflect the Coastal Zone, current County Policy, or new data and information. The Local Coastal Plan also includes new policies based on the requirements and recommendations of the California Coastal Commission, new data and information, and input received at the 2013 public workshops. The numbered "Recommendations" in the previous Local Coastal Plan which no longer reflect County policy have not been included in this Local Coastal Plan.

After each policy is a term in parenthesis that describes where it comes from and whether it has been revised:

GP2020	the policy is the same as in General Plan 2020
GP2020 Revised	the policy in General Plan 2020 has been revised
Existing LCP	the policy is the same as the Recommendation in the Existing Local Coastal Plan
Existing LCP Revised	the policy (Recommendation) in the Existing Local Coastal Plan has been revised
New	the policy is new
Coastal Commission	the policy is developed from published guidance provided by the Coastal Commission

3.2.2 Land Use Element

The previous Local Coastal Plan contained a chapter on "Development" that included a section on "Land Use." This section has been incorporated into the Land Use Element.

In addition to the ten general goals and policies, the Land Use Element describes where the different kinds of uses for land may be established on the Sonoma County Coast, establishes the land use and density of properties on the Coast and shows them on Land Use Plan Maps, and presents policies specific to the Coast or particular SubAreas.

Visitor-Serving Commercial Facilities. This section identifies and describes the existing restaurants, overnight accommodations, auto service stations, grocery stores, and similar commercial uses for visitors by Coast SubArea; and presents policies for encouraging new and expanding existing visitor-serving commercial development where it can be accommodated with minimal impacts on coastal views and natural resources.

3.2.3 Agricultural Resources Element

The previous Local Coastal Plan contained a chapter on "Resources" that included a section on "Agricultural Resources." This section has been incorporated into the Agricultural Resources Element.

The Agricultural Resources Element presents guidelines and policies that apply to lands designated in the Agriculture land use category. Policies address marketing of agricultural products, stabilization of agricultural use at the edge of urban areas, limitations on intrusion of residential uses, location of agricultural services and visitor-serving uses, provision of farmworker housing, streamlining of permit procedures for agricultural uses, and recognition of the aquaculture and horse industries as agricultural uses.

3.2.4 Open Space and Resource Conservation Element

The Open Space and Resource Conservation Element addresses scenic resources/design, biotic resources, soils, timber resources, mineral resources, energy resources, air quality, and commercial fishing and support facilities.

Scenic Resources. The 2001 Local Coastal Plan contained a chapter on "Development" that included a section on "Visual Resources." This section has been incorporated into the "Scenic Resources" section of the Open Space and Resource Conservation Element.

The Scenic Resources/Design section includes maps of the Coast SubAreas showing the locations of designated Scenic Landscape Units, Vista Points, and Scenic Corridors. Scenic Landscape Units incorporate "Major Views", established along with Vista Points in the previous Local Coastal Program and retained in this Local Coastal Plan Update. The section and the Coastal Design Guidelines present siting and design guidelines to protect coastal views and to minimize other visual impacts of development.

The eight types of natural landforms in the Coast's rural areas are identified, and policies and design guidelines to preserve, retain, and enhance the character of these rural areas are presented. They call for preserving existing site features contributing to rural character, siting of buildings and development features to blend in with the surrounding landscape, and allowing certain rural design features in new development. Coastal design guidelines for specific landform types are also provided in **Appendix A** to minimize the visual impacts of new development.

This section also describes the visual characteristics of the major urban communities on the Coast. It presents both urban design guidelines specific to some of these

communities in order to retain and enhance their unique character, and general urban design guidelines for other urban development on the Coast.

Biotic and Other Natural Resources. The 2001 Local Coastal Plan contained a chapter on "Environment and Hazards" that included a section on "Environmental Resources", which has been incorporated into the "Biotic Resources" section of the Open Space and Resource Conservation Element. This section includes maps of the Coast SubAreas showing the locations of designated "Environmentally Sensitive Habitat Areas" (ESHAs), which include Riparian Corridors; and Biotic Habitat Areas, which include Sensitive Natural Communities and Special Status Animal and Plant Occurrences and Habitats. The previous Local Coastal Program established a hierarchy of environmental sensitivity for ESHAs; only the "Preservation" sensitivity designation is retained in the Local Coastal Plan Update. Policies in the Open Space and Resource Conservation Element address the protection of ESHAs. They also address the protection and preservation of other natural resources, including soils, timber resources, mineral resources, energy resources, and air quality.

Commercial Fishing and Support Facilities. The 2001 Local Coastal Program contained a chapter on "Harbor" which has been incorporated into the "Commercial Fishing and Support Facilities" section of the Open Space and Resource Conservation Element. The section contains policies for the protection and upgrading of facilities serving the commercial fishing industry, and for the protection of natural resources associated with dredging in Bodega Bay.

3.2.5 Public Access Element

The California Constitution provides that the public has the right-of-way to navigable waters, and the California Coastal Act carries out this provision. Policies of the Coastal Act state that the public has a right to maximum access to the shoreline and that development shall not interfere with that right. The policies also give priority to recreation and visitor-serving uses over all other uses except coastal dependent industry and agriculture, and promote enhancement of public and private recreation opportunities. The previous Local Coastal Plan contained a chapter on "Recreation" that has been incorporated into the Public Access Element.

The Public Access Element is divided into the following sections: Background, Public Access Facilities, Recreational Boating, and Visitor-Serving Commercial Facilities. The Background describes the legal basis for public access to the shoreline under the California Constitution, Coastal Act, Coastal Trail Act, and other guiding policy documents.

Public Access Facilities. This section is divided into sections on Facility Classification, Acquisition, Planning and Development, and Management and Operation. It describes in general the public and private parks, trails, and other recreational facilities on the Sonoma County Coast and includes maps showing the locations of these facilities.

The Facility Classification section describes the classification system for public access facilities - parks and preserves, regional trails, coastal access trails, and bikeways.

The Facility Acquisition section describes the methods, issues, and priorities for acquisition of public access facilities. Policies are presented for maximizing public access to and on the Coast; carrying out the Public Access Plan (**Appendix B**)as the primary policy for determination of park needs and acquisition of public access; minimizing adverse impacts of development on public access; requiring dedication of a public access easement or fee title as a condition of approval for new development on property containing a facility proposed in the Public Access Plan; protecting areas where public prescriptive rights to the coast may exist; acquiring property not included in the Public Access Plan standards for Offers to Dedicate and siting of public access facilities; and identifying, prioritizing, and developing the California Coastal Trail.

The Facility Planning and Development section describes how the Public Access Plan was developed and the standards on which it is based; and the considerations for planning and developing public access facilities. Policies are presented for carrying out the Public Access Plan as the primary policy for development of public access facilities; facility design and construction; trail surfaces and improvements; providing signs, restrooms, bicycle storage, and other amenities; providing adequate parking; providing campgrounds and overnight accommodations; and evaluating adverse impacts of facilities on people and the environment.

The Facility Management and Operation section describes the allowable uses of public access facilities and some issues associated with management and operation funding, maintenance, policing, and private fee access. Policies are presented for ensuring adequate operation and maintenance of public access facilities to protect natural resources and public safety.

Recreational Boating. This section identifies and describes the existing recreational boating facilities on the Sonoma County Coast and presents policies for providing adequate facilities at parks, harbors, and marinas.

3.2.6 Water Resources Element

The previous Local Coastal Plan contained a chapter on "Development" that included a section on "Public Services" with a subsection on "Water Supply." This subsection has been incorporated into the Water Resources Element, a new Element developed in recognition of the importance of water to the environment, economic stability, agricultural protection, and overall quality of life of Sonoma County Coast residents. Policies address subjects such as surface water, groundwater, water conservation and re-use, public water systems, and water quality.

3.2.7 Public Safety Element

The previous Local Coastal Plan contained a chapter entitled "Environment and Hazards" that included a section on "Hazards," which has been incorporated into the Public Safety Element.

Special limitations and procedures for review of development projects located in areas subject to natural hazards are included in the Element. Natural hazards addressed include seismic and other geologic hazards, landslide and erosion on unstable slopes, beach erosion and coastal cliff/bluff stability, flooding, sea level rise, tsunami, and wildland fire. Hazardous materials are also addressed.

3.2.8 Circulation and Transit Element

The previous Local Coastal Plan contained a chapter on "Development" that included a section on "Transportation," which has been incorporated into the Circulation and Transit Element. Plans for the Sonoma County Coast's future highway and transit systems are presented, with emphasis on State Route 1. The Element emphasizes an increased role for public transit in serving commute trips and the importance of measures which will allocate existing highway capacity more efficiently during peak travel periods. The Element recommends improvements to various intersections to increase the capacity and safety of State Route 1; and an increased role for pedestrian, bicycle, and other alternative transportation modes.

3.2.9 Public Facilities and Services Element

The previous Local Coastal Plan contained a chapter on "Development" that included a section on "Public Services," which has been incorporated into the Public Facilities and Services Element. The various public facilities and services which may affect the future development of land on the Sonoma County Coast are emphasized in this Element, including water, wastewater treatment and disposal, parks and recreation, fire protection, law enforcement, and solid waste management. The Sonoma County Coast

is a water scarce area, and land conditions are poor for septic systems. Policies in this Element address this lack of basic services on the Coast, which limits development potential in most areas. The policies also address limitations to emergency medical and other health care services for the Coast's small population spread over large distances. Policies related to youth, family, and senior services are also included.

3.2.10 Noise Element

The previous Local Coastal Plan did not address Noise. The Noise Element evaluates existing and projected future noise conditions related to traffic on highways and major roads, heavy commercial and industrial activities, mineral extraction, solid waste landfills and transfer stations, and special events; and presents policies and standards to assure noise compatibility in future land development.

4. CITIZEN PARTICIPATION IN PLAN PREPARATION

Sonoma County encourages a high degree of public awareness of planning and development issues and participation by interested citizens in the preparation and consideration of planning policies. General Plan 2020, on which this Local Coastal Plan Update is largely based, was assisted by a Citizens' Advisory Committee (CAC) appointed by the Board of Supervisors that was responsible for reviewing and making recommendations on all issues and related policies that were included in the General Plan Update. In effect, the CAC directly participated in the drafting of the goals, objectives, and policies to be submitted for consideration by the Planning Commission and Board of Supervisors. During all phases of policy development, local residents, businesses, property owners, and interest groups were encouraged to express their views on planning issues and policies proposed for incorporation into General Plan 2020.

Public workshops on the Local Coastal Plan Update were held as follows:

July 14, 2015	County PRMD Hearing Room, Santa Rosa
July 7, 2015	Del Mar Center, The Sea Ranch
June 29, 2015	Bodega Bay Fire Station
June 24, 2015	Monte Rio Community Center
May 28, 2013	Del Mar Center, The Sea Ranch
June 5, 2013	Bodega Bay Fire Station
June 8, 2013	Jenner Community Center

5. ACKNOWLEDGMENTS (LOCAL COASTAL PLAN UPDATE AND GENERAL PLAN 2020)

5.1 Board of Supervisors

Mike Cale, Valerie Brown, Susan Gorin	1st District
Mike Kerns, David Rabbitt	2nd District
Tim Smith, Shirlee Zane	3rd District
Paul Kelley, Mike McGuire, James Gore	4th District
Mike Reilly, Efren Carrillo, Lynda Hopkins	5th District

5.2 Planning Commission

Charlie Cooke, Dick Fogg, Greg Carr	1st District
Don Bennett, Marcel Feibusch, Shawn Montoya	2nd District
Nadin Sponamore, Lee Van Geisen, Jeff Civian, Lawrence Reed, Todd Tamura, Kathleen Doyle, Komron Shahhosseini, Paula Cook	3rd District
Pam Alberigi, Dennis Murphy, Jason Liles, Komron Shahhosseini, Willie Lamberson, Tom Gordon, Aeriel Kelley, Cameron Mauritson	4th District
Rue Furch, Allen Siegle, Pamela Davis, Tom Lynch	5th District

5.3 County Staff Team

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

LAND USE 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
September XX, 2019

LAND USE ELEMENT

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LAND USE ELEMENT

1. INTRODUCTION

1.1 Purpose

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

Below is the section of the Coastal Act addressing Land Use Plans:

> ***Section 30108.5***
>
> ***Land use plan.*** *"Land use plan" means the relevant portion of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions.*

The County recognizes that the policies of the Local Coastal Plan represent a legislative balance between the individual rights of property owners and the requirements of the California Coastal Act. Decisions made pursuant to the Local Coastal Plan shall further community goals and objectives while not unconstitutionally abridging property rights.

The Local Coastal Plan incorporates the relevant General Plan policies into a single Land Use Plan for the Coastal Zone. Its goals, objectives, and policies are consistent with the Coastal Act and further define and guide permitted development on the Sonoma County coast. Sonoma County is blessed with a rugged 55-mile coastline, with expansive open spaces and recreational opportunities, extremely low population densities and rich natural resources that are protected by engaged residents, public ownership and the stewardship of the agricultural and timber industries. The Land Use Element provides the framework for land uses that serves to protect the abundant natural resources and provide for enhanced public access and recreation serving the greater community while balancing the needs of local residents, farmers and resource managers.

1.2 California Coastal Act

Most policies of the California Coastal Act relate in some degree to land use. Policies concerning protection of coastal resources, provision of public access and recreation, and encouragement of coastal-dependent uses, which directly affect land use decisions, are cited in other Elements of the Local Coastal Plan. All of these policies were evaluated in preparing this Land Use Element. The Coastal Act includes a framework for development on the coast, to protect coastal resources and maintain public access.

1.3 Sonoma County Coastal Setting

The Local Coastal Plan covers a portion of the area referred to in the Sonoma County General Plan as the Sonoma Coast/Gualala Basin Planning Area. The Sonoma Coast planning area is the most sparsely populated of the nine Sonoma County Planning areas. The Sonoma County coast runs the 55-mile length of the Pacific Coast from the Gualala River to the Estero Americano. The Coastal Zone includes several coastal communities and extends inland to include the communities of Duncans Mills and Valley Ford. Roughly paralleling the San Andreas Fault Zone, the rugged Sonoma Coast is a scenic area of regional, state, and national significance, with nearly vertical sea cliffs and sea stacks along the shoreline, dunes, marine terraces, coastal uplands, and headlands. In the north, the Gualala River South Fork extends inland into the coniferous forests of the western Mendocino Highlands.

Outside of the nine rural communities indicated in **Table C-LU-1**, settlement in the coastal zone is very sparse. The region's economy is primarily oriented to recreation and tourism, commercial fishing, timber production, and sheep ranching. Residences, originally planned as second homes, including The Sea Ranch and Bodega Harbor, are now often occupied by permanent residents. In addition, many residents utilize home offices. The greatest gains in employment in the Planning Area are associated with the recreation and tourism industries.

The population in the Coastal Zone was 3,690 and 3,385 residents in 2000 and 2010, respectively (U.S. Census). The population estimates for 2018 and 2023 are 3,427 and 3,359 residents (Permit Sonoma GIS Community Profile). This data reflects the loss of commercial fishing operations along the coast and may indicate a trend away from permanent residency towards vacation homes and tourism industry. Table C-LU-1 lists the 2010 population of nine communities in the Coastal Zone. In summer 2014 approximately 110 homes in the coastal zone were registered to pay Transient Occupancy Tax. By June of 2017 approximately 550 residences were registered,

indicating that the vacation rental industry has become an integral part of the tourist industry on the coast.

Table C-LU-1: 2010 Populations for Rural Communities

Community	2010 Population[1]
Bodega Bay	1,077
Carmet	47
Duncans Mills	175[2]
Jenner	136
Salmon Creek	86
Sereno Del Mar	126
The Sea Ranch	1,305
Timber Cove	164
Valley Ford	147
Estimated Population Outside Community Boundaries	122
Total	**3,385**

Notes:
[1] 2010 Census
[2] 2000 Census (only available data)

Between 2000 and 2014, 560 new residential units were constructed. Minimum lot sizes outside of rural communities range from 160 to 640 acres over most of the coast. The region's economy is primarily oriented to recreation and tourism, commercial fishing, timber production, and ranching. The Sonoma County General Plan 2020 Land Use Element for the Sonoma Coast planning region projects 3,283 new residents resulting in a total population of 11,700 by 2020 for the entire planning area, including inland portions. The greatest gains in employment would be those associated with the recreation and tourism, and professional services industries.

1.4 Relationship to Other Elements

The Land Use Element reflects the various goals, objectives, and policies of other elements of the Local Coastal Plan. The Elements are internally consistent because:

(1) All Elements use the same population, housing, and employment projections.

(2) The policies in the Land Use Element support policies in the other Elements.

(3) The Land Use Maps and accompanying text represent a consciously selected balance among the various goals and objectives included in all of the Elements.

Site specific factors may result in a less intensive use or lower density than allowed by the Land Use Plan maps.

(4) Where necessary, policies in other Elements are cross-referenced.

1.5 Scope and Organization

The Land Use Element consists of five sections – an Introduction, Land Use Policy, Community Policy, Visitor Serving Commercial Policy, and Affordable Housing Policy. The Land Use Policy section contains descriptions of the land use categories that are applied to the Land Use Maps for each of the ten Subareas of the Sonoma County Coast. The ten SubArea Land Use Maps **(Figures C-LU-1a to C-LU-1k)** show the applicable land use categories and maximum permitted residential densities. They are displayed at the end of the Land Use Policy section and are also available at the Permit Sonoma office and website.

The Land Use Maps and Land Use Policy, Community Policy, Visitor Serving Commercial Policy, and Affordable Housing Policy must be used together with the policies and maps of the other elements in order to fully understand the policies applicable to any particular situation. The Land Use Maps reflect the Goals, Objectives, and Policies of all of the Elements and on an evaluation of the natural and cultural characteristics of the lands along the coast.

Changes to the Land Use Maps, whether to change the land use category or permitted residential density, may be accomplished only through the Local Coastal Plan Amendment process, subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. Changes in land use or density must be consistent with the other elements and policies of the Local Coastal Plan and the designation criteria noted in each land use category below.

Applications for Local Coastal Plan Amendments may be filed with the County. However, if at any time the Director of Permit Sonoma determines that the proposed amendment is substantially inconsistent with Local Coastal Plan Goals, Objectives, or Policies or the policies of Chapter 3 of the Coastal Act, they may submit the application directly to the Planning Commission and Board of Supervisors for summary denial on policy grounds.

Where parcels that are the subject of a lot line adjustment are located in different land use categories or Local Coastal Plan designations, the following guidelines should be applied:

(1) If the adjustment would result in a parcel having a split land use designation and split zoning of different densities and intensities of land use, require a concurrent

filing of a Local Coastal Plan Amendment to avoid the creation of new split land use/zoning parcels.

(2) If the adjustment would not result in a parcel having a split land use designation and split zoning of different densities and intensities of land use, it may be determined to be consistent with the Local Coastal Plan through the coastal development permit approval process.

(3) In processing the adjustment consider that no new adverse impacts may result from the adjustment or required concurrent amendment, if any.

2. LAND USE DESCRIPTION

2.1 Priority of Land Uses

The Coastal Act established a framework for guiding development and preserving sensitive resources in the Coastal Zone. Through its policies, it sets up a land use priority system which gives the highest priority to the preservation and protection of environmentally sensitive habitats and prime agricultural land and timberland. The Coastal Act sections 30241, 30243, and 30240 prioritize land uses in the coast. Resource uses are generally highest priority land uses, specifically regarding uses that maximize the amount of prime agricultural land in production, and the long-term productivity of timberlands. Additionally, only resource dependent uses may be allowed in environmentally sensitive habitat areas. Coastal-dependent development which requires a site on or adjacent to the sea has the next priority. Finally, opportunities for coastal recreation on suitable sites have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry (Coastal Act Section 30222).

The Local Coastal Plan establishes a prioritization of land uses, consistent with the Coastal Act as shown in **Table C-LU-2**. The Local Coastal Plan seeks to concentrate new development in already developed areas and avoid development in sensitive coastal resource areas.

2.2 Land Use Categories

The Local Coastal Program contains 13 base zone districts twelve land use categories in five general use categories. **Tables C-LU-3** shows the Local Coastal Plan Land Use categories and applicable Zones under the Coastal Zoning Ordinance.

Table C-LU-2: Priority of Coastal Land Uses

	Undeveloped areas		Developed areas
High	Agriculture (Prime coastal dependent), forestry (productive timberland), coastal dependent public recreation [30213, 30241, 30242, 30243, 30250(a), 30250(b)].	Coastal dependent[1] public recreation [30213, 30220, 30221]	Coastal dependent industry and commerce, commercial fishing, coastal dependent public recreation and special communities [30213, 30234, 30250(a), 30250(b), 302.53-5(e), 30255]
		Water dependent[1] public recreation [30220, 30221, 30223]	
Priority of Use		Non-coastal[1] or non-water dependent public recreation [30220, 30221]	
		Visitor-serving[1] commercial recreation, lower cost [30222, 30213, 30250 (c)]	
		Visitor-serving[1] commercial recreation, higher cost [30222, 30250 (c)]	
Low			Affordable, low, and moderate income residential, general industrial, or commercial development[2] [30222, 30250, 30255]

Notes:

1 Recreational uses of the coast that do not require extensive alteration of the natural environment have priority in intertidal and waterfront areas over recreational uses that would result in substantial alteration of the natural environment [30233, 30235, 30255]

2 Concentration of development policies [30250(a)] limit development in rural areas, except public recreation and visitor-serving uses.

Table C-LU-3: Land Use Categories and Applicable Zones

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

2.2.1 Land Use Definitions

Below are the definitions for the two categories of potential uses under each land use category:

> **Principally Permitted Uses:** Principal Uses as described in the Coastal Zoning Code and consistent with the primary purpose of the land use category. All development within the Coastal Zone requires a discretionary Coastal Development Permit, unless exempt or otherwise categorically excluded by order of the Coastal Commission. Principally permitted uses are not appealable to the California Coastal Commission, pursuant to Section 30603(a)(4) of the Coastal Act, although such development is subject to review and permitting by the County and may be appealed to the County. Uses shall not be considered principally permitted if located within an environmentally sensitive habitat area or major view shed designated in the Open Space and Resource Conservation Element. All principally permitted uses are subject to site development standards. Outside of commercial land use designations all commercial uses that require a coastal development permit are appealable to the Coastal Commission.

Appeal Jurisdiction: The appeal jurisdiction area includes, but is not limited to: areas west of Highway 1, areas within 100 feet of a wetland, estuary or stream, and development located in a sensitive coastal resource area. Only resource-dependent uses may be permitted within an environmentally sensitive habitat area. All clearing of vegetation, grading, excavation, fill or construction are subject to the site development standards contained in the Open Space and Resource Conservation Element.

Other Permitted Uses: Land uses permitted or conditionally permitted in the Coastal Zoning Code not described as Principally Permitted Uses are secondary and subordinate to the principal permitted uses and must be compatible with principally permitted land use. It should be noted that the term "permitted uses" as used in the descriptions of the land use categories identify permissible uses consistent with the purpose of the land use category, subject to zoning and permitting requirements of the County. All development within the Coastal Zone requires a discretionary Coastal Development Permit, unless exempt or otherwise categorically excluded by order of the Coastal Commission. Any development that is not designated as the Principally Permitted Use in a particular zone may be appealed to the Coastal Commission.

2.2.2 Agriculture Land Use

Agricultural uses remain a high priority land use type on the coast. The purpose of this land use type is to preserve and protect appropriate coastal agriculture including grazing and livestock uses. The Agriculture Element further describes policy regarding agricultural uses on the coast. The land use plan includes two agricultural use categories, Land Extensive Agriculture, and Diverse Agriculture. The agricultural land use categories vary in the type of agricultural uses and support uses allowed, and by allowable residential density. Agricultural uses are among the highest priority uses within the Coastal Zone.

Land Extensive Agriculture Areas

Purpose and Definition

The Land Extensive Agriculture land use category enhances and protects land best suited for non-intensive agriculture of relatively low production on relatively large parcels (i.e., mainly dairy and other livestock production and grazing). Residential uses within this land use category must be occupied by the owner, farm operator or persons engaged in the farming operation. The objective in Land Extensive Agricultural areas shall be to establish densities and parcel sizes that are conducive to continued agricultural production.

Permitted Uses

The principal permitted use on lands designated Land Extensive Agriculture is agricultural production including those agricultural uses defined in the Coastal Zoning Code for lands designated Land Extensive Agriculture.

Lands designated Land Extensive Agriculture are intended primarily for low intensity agricultural uses on large parcels including grazing, farm animal husbandry, and outdoor row crop production with essential support uses including incidental preparation and storage of crops grown on site and limited farm related residential development.

Additional agricultural and agricultural industry or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development. In addition, all uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Permitted Residential Densities. Land divisions shall be permitted only for the purpose of increasing or enhancing agricultural production and must result in a minimum lot size of 640 acres. Allowable residential density is 160 acres per unit.

A maximum of four dwelling units may be allowed per parcel, including all types of units. A farm family dwelling, full-time agricultural employee dwellings, seasonal and year-round farmworker housing, and an accessory dwelling unit are permitted in addition to the dwellings consistent with permitted residential density, provided that no more than four dwellings are permitted per parcel. "Farm family dwelling" means an additional single family dwelling incidental to the main dwelling in terms of size, location and architecture which is not leased, subleased, rented or sub-rented separately from the main dwelling nor divided by sale, and which is inhabited by a member of the farm operator's family. All dwelling units shall be clustered in relation to physical land features and property management conditions. All dwelling units shall be subordinate to and consistent with agricultural production and shall comply with Agricultural Resources Element policies.

Land Extensive Agriculture Designation Criteria. A Land Use Map Amendment to apply the Land Extensive Agriculture land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must

meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Land Extensive Agriculture land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:

(1) Soil and water are adequate for livestock grazing or other crop production.

(2) Most parcel sizes in the area are greater than 60 acres.

(3) Existing or historic use for livestock grazing, dairy ranching, hay or similar forage crop.

(4) Qualifies for Non-Prime Agricultural Land Conservation Act Contract.

(5) Areas which may not meet the above criteria but which are surrounded by lands in farming.

Diverse Agriculture Areas

Purposes and Definition

The Diverse Agriculture land use category enhances and protects land best suited for diverse types of agriculture on relatively small parcels in which farming may be part-time and may not be the principal occupation of the farmer. The primary purpose of this category is to protect a variety of agricultural uses of scale and intensity to be compatible with coastal resources and to limit the conversion of agricultural parcels to non-agricultural use.

Permitted Uses

Principally permitted uses on lands designated Diverse Agriculture are limited to agricultural production including those agricultural uses defined in the Coastal Zoning Code for lands designated Diverse Agriculture.

Lands designated Diverse Agriculture are intended primarily for a variety of agricultural uses on relatively small agricultural parcels including grazing, farm animal husbandry, and outdoor row crop production with essential support uses including incidental preparation and storage of crops grown on site and limited farm related residential development. In addition, all allowed uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Additional agricultural and agricultural industry or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the

Coastal Zoning Code. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Permitted Residential Densities. Land divisions shall be permitted only for the purpose of increasing or enhancing agricultural production with a minimum lot size of 160 acres. Allowable dwelling unit density is 40 acres per dwelling unit.

A maximum of four farm related dwelling units may be allowed per parcel. One farm family dwelling per lot, full-time agricultural employee dwellings, seasonal and year-round farmworker housing, and one accessory dwelling unit per lot are permitted in addition to dwellings consistent with permitted residential density, provided that no more than four dwellings are permitted per parcel. All dwelling units shall be clustered in relation to physical land features and property management conditions. All dwelling units shall be subordinate to and consistent with agricultural production and shall comply with Agricultural Resources Element policies.

Diverse Agriculture Designation Criteria. A Land Use Map Amendment to apply the Diverse Agriculture land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Diverse Agriculture land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:

(1) Soil suitable for food crop production and adequate water for irrigation.

(2) Most parcel sizes in the area are greater than 10 acres.

(3) Existing or historic use as orchard, vineyard, other food crop production, hay or other forage crop production, livestock grazing, dairy ranching, or other type of farming.

(4) Qualifies for Prime or Non-Prime Agricultural Land Conservation Act Contract.

(5) Areas which may not meet the above criteria but which are surrounded by lands in farming.

2.2.3 Recreation and Natural Resources Land Use

The purpose of Recreation and Natural Resources Land Use Policy is to accommodate recreational facilities for County residents and tourists, and to protect lands used for timber production and natural resource conservation. The intent of the policy is to ensure natural resource production and coastal dependent public recreation uses are priority land uses over other land use types and that natural resource areas be conserved and managed to avoid depletion and promote renewable resources.

Recreation Land Use Areas

Purpose and Definition

The Recreation land use category encompasses lands accommodating private or public recreational facilities. This land use category allows for application of a Planned Community (PC) zone and Resources and Rural Development (RRD).

Principally permitted uses on lands designated for Recreation are limited to those defined in the Coastal Zoning Code for the designated zoning district, Planned Community (PC) or Resources and Rural Development (RRD).

Permitted Uses

Planned Community. Zoning for Recreation Lands designated as Planned Community (PC) zoning with an underlying land use of Recreation are intended for use as prescribed in the community's Precise Development Plan, if any, and consistent with the approval for the Planned Community. Common recreation uses in a Planned Community include uses such as golf courses and tennis courts, and other miscellaneous recreational development. Development of new residential uses on lands designated Planned Community (PC) with an underlying land use designation of Recreation requires an amendment of the Planned Community approval and a Local Coastal Program amendment to the land use designation, unless previously prescribed as a permitted use in the Precise Development Plan and Planned Community Approval.

The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Resources and Rural Development Zoning for Recreation. Lands zoned Resources and Rural Development with an underlying land use of Recreation are intended primarily for a variety of resource and coastal dependent recreation activities, and limited agricultural uses and related single family dwelling unit. The principally permitted use for lands zoned Resources and Rural Development is land management for the purposes of resource conservation including passive recreation, as described in the Coastal Zoning Code for Resources and Rural Development.

Additional resource, recreation, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development. In addition, all allowed uses located in an environmentally sensitive habitat area, habitat buffer,

riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Recreation Permitted Residential Densities. Land divisions for Resources and Rural Development parcels with an underlying land use of Recreation shall be permitted only for the purpose of increasing or enhancing recreation or resource uses with a minimum lot size of 640 acres. Permitted residential density is 160 acres per dwelling unit. A maximum of four resource- or recreation-related dwelling units may be allowed per parcel, including all types of units. All dwelling units shall be clustered in relation to physical land features and property management conditions. All dwelling units shall be subordinate to and compatible with recreation and resource related activities. Land divisions or development of new residential uses for lands zoned Planned Community with an underlying land use designation of Recreation require amendment to the Precise Development Plan or planned community approval and require a Local Coastal Program amendment.

Recreation Designation Criteria. A Land Use Map Amendment to apply the Recreation land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Recreation land use designation must demonstrate adequate road access for the allowed uses and that allowed uses will not adversely affect agriculture or resource production uses and meet one or more of the following criteria:

(1) Has severe development constraints such as geologic, flood, or fire hazards, marginal or unproven water availability, or limited septic capability, or is vulnerable to environmental impact, but suitable for low intensities of recreational use, passive recreation, or coastal dependent recreation.

(2) Land is recognized as a legally established recreational use.

(3) Land is a designated common area without development which is committed to recreation in a planned community.

Resources and Rural Development Land Use Areas

Purpose and Definition

The primary objective of the Resources and Rural Development land use category is to protect lands needed for use and production of natural resources (e.g., water, timber, geothermal steam, or aggregate production); to protect water resources, scenic resources and biotic resources; and to protect from intensive development lands constrained by geologic, flood, or fire hazards or other constraints.

Permitted Uses

Principally permitted uses on lands designated Resources and Rural Development are limited to land management for the purposes of resource conservation including passive recreation as described in the Coastal Zoning Code for Resources and Rural Development. Lands designated as Resources and Rural Development are intended primarily for a variety of land management and coastal dependent recreation activities, but may also be used for limited agricultural uses and very low density residential development not in conflict with the primary resource use of the site.

Additional resource, recreation, agriculture, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Permitted Residential Density. Land divisions shall be permitted only for the purpose of increasing or enhancing natural resource uses with a minimum lot size of 640 acres. Maximum residential density is 160 acres per dwelling unit.

A maximum of four resource-related dwelling units may be allowed per parcel, including all types of units. A farm family dwelling, full-time agricultural employee dwellings, seasonal and year-round farmworker housing, and an accessory dwelling unit are permitted in addition to the dwellings consistent with permitted residential density, provided that no more than four dwellings are permitted per parcel. All dwelling units shall be clustered in relation to physical land features and property management conditions. All dwelling units shall be subordinate to and consistent with agricultural production and shall comply with Agricultural Resources Element policies.

Resources and Rural Development Designation Criteria. A Land Use Map Amendment to apply the Resources and Rural Development land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Resources and Rural Development land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:

(1) Land has severe constraints such as geologic, flood, or fire hazards; marginal or unproven water availability; or limited septic capability.

(2) Land contains natural resources such as water, timber, geothermal steam, aggregate, or soil.

(3) Land contains biotic or scenic resources.

(4) Land is vulnerable to environmental impact.

Timber Land Use Areas

Purposes and Definition

The primary purpose of the Timber land use category is to protect timberland needed for commercial timber production under the California Timberland Productivity Act. This land use category allows for application of Timberland Production (TP), and Resources and Rural Development (RRD) zones.

Permitted Uses

Principally permitted uses on lands designated Timber Production are limited to those defined in the applied zoning district, either Timberland Production (TP) or Resources and Rural Development (RRD). The principally permitted use on lands designated and zoned for Timber is land management for the continued operation and protection of Timber Preserves. Timber lands may also be used for limited accessory uses and very low density residential development not in conflict with the primary resource use of the site. Additionally, lands zoned Resource and Rural Development (RRD) with an underlying land use designation of Timber may also be used for agricultural operations and very low density residential development not in conflict with the resource use of the site.

Additional resource, recreation, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development. In addition, all allowed uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Permitted Residential. Land divisions shall be permitted only for the purpose of increasing or enhancing timber production, with a minimum lot size of 640 acres. Residential densities shall be limited to one dwelling unit per 160 acres. A maximum of four resource-related dwelling units may be allowed per parcel consistent with permitted residential density.

Timber Designation Criteria. A Land Use Map Amendment to apply the Timber land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the

California Coastal Act. A Local Coastal Plan Amendment to apply the Timber land use designation must also be consistent with other policies of the Local Coastal Plan and meet one or more of the following criteria:

(1) Land is predominantly in Timber Site Class I, II, III, IV, or V.

(2) Land has existing or historic use for timber production.

(3) Timber production is considered the highest and best use of the land.

(4) Timberland needed for commercial timber production under the California Timberland Productivity Act.

(5) Land for which harvesting of timber is not prohibited by restrictions placed on property.

(6) A parcel or contiguous ownership of at least 40 acres in Timber Site Class I or II if it is not contiguous to and under the same ownership as the surrounding land in timber production.

(7) A parcel or contiguous ownership of at least 80 acres in Timber Site Class III, IV, or V if it is not contiguous to and under the same ownership as the surrounding land in timber production.

(8) Areas which may not meet the above criteria but which are surrounded by lands in timber production.

Dedicated Open Space Areas

Purpose and Definition

Designated common areas which are committed to perpetual open space in planned developments are in the Dedicated Open Space land use category. This land use category allows for application of the Planned Community (PC) zone for The Sea Ranch planned development and Rural Residential (RR) zone for the Bodega Harbor and other planned developments.

Permitted Uses

The Dedicated Open Space land use category is reserved for application in planned developments and designated rural communities, which are intended to allow diversification in the relationship of various uses, buildings, structures, lot sizes and open spaces. Lands designated as Dedicated Open Space are intended to remain as common area without structures. Uses allowed on Dedicated Open Space areas are limited to those prescribed in the planned development or applicable planned community approval. Approved uses may include grazing, outdoor crop production, and passive recreation.

Development of new uses that are not prescribed in the planning community approval on lands designated Dedicated Open Space requires an amendment of the Precise Development Plan or planned community approval and a Local Coastal Program amendment to the land use designation. The Coastal Zoning Code further describes the process for development of parcels in a Planned Community and provides additional standards for such development.

Designated Open Space Designation Criteria. A Land Use Map Amendment to apply the Dedicated Open Space land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Dedicated Open Space land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Land is a designated common area without development which is committed to open space in a planned community.

(2) Lands without existing residential, commercial, or industrial development.

2.2.4 Commercial Land Use

The Land Use Plan includes three commercial land use categories – Commercial Fishing, Commercial Tourist, and Commercial Services. The Commercial Fishing land use category encompasses land to accommodate a variety of commercial, light to medium industrial, and service uses which support the commercial fishing and other coastal dependent industries. The Commercial Tourist category is intended to accommodate visitor-serving commercial uses. The primary purpose of the Commercial Services category is to accommodate the day-to-day needs of local residents. While other land use categories may permit limited or incidental commercial use, only these three categories shall be considered commercial land use designations.

The Sonoma County coast is generally not an ideal location for industrial uses due to the distance from population centers, limited work force, minor road system, and exceptional scenic resources and recreation potential, however, limited coastal dependent industrial uses would be acceptable on the coast, within the Commercial Fishing land use category. In Sonoma County coastal-dependent industrial uses would be primarily related to the fishing industry or other industries associated with the marine environment; and otherwise related to timber and agriculture. Most of the Commercial Fishing facilities required on the coast would be accommodated in Bodega Bay.

The Commercial Fishing land use category must be located within an Urban Service Area. Commercial Tourist and Commercial Services land use categories may be applied in Rural Communities and to urban areas within an Urban Service Area.

All commercial uses requiring a coastal development permit are not considered principally permitted uses. Commercial land uses located by an environmentally sensitive habitat area, habitat buffer area, or within a major view shed designated in the Open Space and Resource Conservation Element require a use permit. All clearing of vegetation, grading, excavation, fill or construction are subject to the site development standards contained in the Open Space and Resource Conservation Element.

Commercial Fishing Areas

Purpose and Definition

The Commercial Fishing land use category encompasses land to accommodate a variety of commercial, light to medium industrial, and service uses which support the commercial fishing and other industries which depend on the marine environment and resources. This land use category allows for application of the Commercial Fishing (CF) zone.

Permitted Uses

Principally permitted uses on lands designated Commercial Fishing are limited to fish buying and selling and related fishing industry commercial uses including those defined in the Coastal Zoning Code for Commercial Fishing (CF). Lands designated as Commercial Fishing are intended primarily for a variety of marine dependent commercial uses, but may also be used for limited marine dependent industrial and support uses. Commercial fishing uses include fish buying and selling facilities; warehouses for storage of fishing gear, boats, and trailers; and related accessory structures and uses including fishing supply stores and bait and tackle shops. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Additional resource, recreation, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, all uses requiring a Coastal Development Permit and principal permitted uses allowed in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall be considered other permitted uses.

Building Intensity. The maximum building intensity is determined by multiplying the lot area by the maximum lot coverage and the maximum building height.

Lot Size: New lots shall not be smaller than 1.5 acres on individual wells and septic systems or 1.0 acre on public water and septic. When public sewer is provided, new lots shall not be smaller than 10,000 square feet.

Lot Coverage: The maximum lot coverage is 50 percent.

Height Limits: In areas west of Highway 1, the height limit is 24 feet for commercial and 16 feet for residential with some limited exceptions. In areas east of Highway 1, the maximum height is 24 feet for residential and commercial uses; up to 35 feet for agricultural structures or structures not visible from scenic roads or that are no higher than 24 feet above the corridor and will not block coastal views.

Designation Criteria. A Land Use Map Amendment to apply the Commercial Fishing land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Fishing land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Lands are not converted from an Agricultural land use category which shall have priority over other commercial or industrial land uses.

(2) Lands shall be located within an Urban Service Area.

(3) Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector.

(4) Lands shall be in close proximity and no more than one-half mile to a harbor, marina, bay, or the ocean.

(5) The intended commercial or industrial uses shall be directly related to: a) support of fishermen and the fishing industry, b) support of boat builders/repairers and the boat building/repair industry; or c) support of other industries which depend on the marine environment and resources.

(6) Lands shall not be located in a Scenic Landscape Unit or Scenic View Corridor.

Commercial Tourist Areas

Purpose and Definition

The Commercial Tourist land use category encompasses land to accommodate visitor-serving facilities such as lodging, restaurants, retail shops principally serving tourists,

and recreation facilities. This land use category allows application of the Commercial Tourist (CT) zone.

Permitted Uses

Principally permitted uses on lands designated Commercial Tourist are limited to visitor serving commercial uses including those defined in the Coastal Zoning Code for Commercial Tourist (CT). Lands designated as Commercial Tourist are intended primarily for a variety of visitor serving commercial uses. Commercial tourist uses include hotels, motels, inns, resorts, bed and breakfast inns; limited retail shops, bars, restaurants, guest ranches; art galleries, and visitor information centers. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Additional resource, residential, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, all uses requiring a Coastal Development Permit and principal permitted uses allowed in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Building Intensity. The maximum building intensity is determined by multiplying the lot area by the maximum lot coverage and the maximum building height.

> *Lot Size*: New lots shall not be smaller than 1.5 acres on individual wells and septic systems or 1.0 acre on public water and septic. When public sewer is provided, new lots shall not be smaller than 10,000 square feet.
>
> *Lot Coverage*: The maximum lot coverage is 50 percent.
>
> *Height Limits*: In areas west of Highway 1, the height limit is 24 feet for commercial and 16 feet for residential with some limited exceptions. In areas east of Highway 1, the maximum height is 24 feet for residential and commercial uses; up to 35 feet for agricultural structures or structures not visible from scenic roads or that are no higher than 24 feet above the corridor and will not block coastal views.

Commercial Tourist Designation Criteria. A Land Use Map Amendment to apply the Commercial Tourist land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Tourist land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Lands shall not be converted from an Agricultural or Commercial Fishing Land Use categories which have priority over visitor-serving commercial uses.

(2) Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector.

(3) Visitor-serving commercial uses would be compatible with nearby agricultural operations and uses in the surrounding area.

(4) The site is within or adjacent to a designated Urban Service Area.

(5) Lands shall not be located in a Scenic Landscape Unit or disrupt a Major View.

Commercial Services

Purpose and Definition

The Commercial Services land use category encompasses land to accommodate the day-to-day retail business, service, recreational, and professional service needs of local residents. This land use category allows application of Commercial Services (CS) and Community Commercial (C2) zones which provide general retail and personal services.

Permitted Uses

Principally permitted uses on lands designated Commercial Services are limited to commercial uses as defined in the Coastal Zoning Code for Commercial Services (CS), and Community Commercial (C2). Lands designated Commercial Services are intended primarily for a variety of local serving commercial uses. Commercial service uses include limited retail business, recreational, and professional service to meet the needs of local residents. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Additional resource, residential, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, all uses requiring a Coastal Development Permit and principal permitted uses allowed in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Building Intensity. The maximum building intensity is determined by multiplying the lot area by the maximum lot coverage and the maximum building height.

> *Lot Size*: New lots shall not be smaller than 1.5 acres on individual wells and septic systems or 1.0 acre on public water and septic. When public sewer is provided, new lots shall not be smaller than 10,000 square feet.

Lot Coverage: The maximum lot coverage is 50 percent.

Height Limits: In areas west of Highway 1, the height limit is 24 feet for commercial and 16 feet for residential with some limited exceptions. In areas east of Highway 1, the maximum height is 24 feet for residential and commercial uses; up to 35 feet for agricultural structures or structures not visible from scenic roads or that are no higher than 24 feet above the corridor and will not block coastal views.

Commercial Services Designation Criteria. A Land Use Map Amendment to apply the Commercial Services land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Commercial Services land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Lands are not converted from an Agricultural, Commercial Fishing, or Commercial Tourist land use category, which shall have priority over other commercial land uses.

(2) The designation does not reduce opportunities for affordable or workforce housing.

(3) Lands shall have convenient access to a county or state maintained road, preferably a designated arterial or collector.

(4) The amount of land designated for local-serving commercial uses shall be consistent with the population projected for the local market area.

(5) In rural areas, lands may be limited to a single parcel and be restricted to that level which can be served by an individual well and septic system.

(6) Lands shall not be located within a Scenic Landscape Unit or Major View shed.

2.2.5 Public/Institutional Land Use

Public Facilities Areas

Purpose and Definition

The Public Facilities land use category consists of land accommodating institutional or public uses which serve the community or public need and are owned or operated by government agencies, non-profit entities, or public utilities. However, public uses are also allowed in other land use categories. The Public Facilities and Services Element establishes policies for the location of public uses in these other land use categories. This land use category allows for application of one zone (Public Facilities – PF).

Permitted Uses

Principally permitted uses on lands designated Public Facilities are limited to utility and public service facilities including those defined in the Coastal Zoning Code for Public Facilities (PF). Lands designated Public Facilities are owned and operated by a city, county, special district, federal agency, or state for the primary purpose of providing an essential public service, including public safety, administrative services and the production, generation, transmission, collection, and storage of water, waste, or energy. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Additional resource, recreational, or community serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, all allowed uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Reuse of Public Properties. The County should evaluate, as appropriate, any federal, state, and school properties on the coast that may become surplus properties; and identify those properties that the County may be interested in acquiring. If the County receives the notice of sale of surplus federal, state, or state school property, the Sonoma County Administrator's Office and appropriate County Departments should be notified in a timely manner.

In addition, the County should work with the U.S. General Services Administration for federal properties, California Department of General Services (DGS) for state properties, and DGS and School Districts for state school properties for early notice of properties declared as surplus and offered for sale; and for early consultation regarding potential land use implications of future uses.

Building Intensity. The maximum building intensity is determined by multiplying the lot area by the maximum lot coverage and the maximum building height.

Lot Size: New lots shall not be smaller than 6,000 square feet.

Lot Coverage: The maximum lot coverage is 50 percent.

Height Limits: In areas west of Highway 1, the height limit is 24 feet for commercial and 16 feet for residential with some limited exceptions. In areas east of Highway 1, the maximum height is 24 feet for residential and commercial uses; up to 35 feet for agricultural structures or structures not visible from scenic roads or that are no higher than 24 feet above the corridor and will not block coastal views.

Public Facilities Designation Criteria. A Land Use Map Amendment to apply the Public Facility land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Public Facility land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Ownership or long-term lease by a government agency, other non-profit entity, or public utility.

(2) Adequate road access.

(3) Lands are not suitable for and will not adversely affect agriculture or resource production activities.

2.2.6 Residential Land Use

The Land Use Plan has two residential land use categories - Rural Residential and Urban Residential. The Urban Residential land use category may only be used within an Urban Service Area where public services for sewer and water are available. Maximum residential densities are shown on the Land Use Map. While other land use designations may permit limited or incidental residential use, only these two categories will be considered residential land use designations. The designation criteria shall be applied when considering future Local Coastal Plan Amendments. Additional standards applicable to development on residential lands may be included in the Coastal Zoning Ordinance and local area design guidelines.

Rural Residential Areas

Purpose and Definition

The Rural Residential land use category provides for very low density residential development on lands which have few if any public services but which have access to county maintained roads. These lands are generally suitable for only relatively low density residential land uses that are consistent with maintaining open space in order to preserve and manage natural resources, provide outdoor recreation, and protect public health and safety. This land use category allows application of the Rural Residential (RR) zone which allows limited crop and farm animal husbandry; an Agricultural and Residential (AR) zone which allows unlimited crop and farm animal husbandry on parcels of 2 acres or more; and a Planned Community (PC) zone in which the allowable land uses are based on an approved precise development plan.

Permitted Use

Principally permitted uses on lands designated Rural Residential are limited to single family residential uses including those defined in the Coastal Zoning Code for the applicable zoning district, Rural Residential (RR), Agricultural Residential (AR). Allowable uses on lands zoned Planned Community (PC) are limited to those described in the approved precise development plan for the planned community. Lands designated Rural Residential not within a planned development are intended for low densities of residential development and associated accessory structures and uses including accessory dwelling units and limited agricultural uses. The Coastal Zoning Code further describes the uses that are permitted within this category and provides additional standards for such development.

Additional resource, recreational, or neighborhood serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, all allowed uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Permitted Residential Density. Allowable residential density for Rural Residential areas ranges from 1 to 20 acres per dwelling unit. Maximum residential density is applied based on similar density of existing lots in the surrounding area, suitable soils for septic disposal, available water, environmental suitability, access to arterial or collector roads, proximity of commercial services and public services and facilities, and no significant impacts on agriculture and resource production. Lots smaller than 1.5 acres shall not be created if the residence is to be served by an individual well and septic system. New lots may be as small as 1 acre if the residence is to be served by a public water system.

Designation Criteria. A Land Use Map Amendment to apply the Rural Residential land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Rural Residential land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Lands are not converted from an Agricultural, Commercial Fishing or Commercial Tourist land use category, which shall have priority over residential land uses.

(2) The area does not have soils suitable for agricultural production.

(3) The area does not include substantial agricultural or resource uses.

(4) Lands have access to a County maintained road.

(5) Lands have enough groundwater for individual wells.

(6) Lands have sufficient permeability for individual septic systems.

Urban Residential Areas

Purpose and Definition

The Urban Residential land use category includes land with public services for low and medium density residential development. It accommodates a variety of housing types depending on the density assigned on the Land Use Map. This land use category allows application of three residential zones including: Low Density Residential (R1) which allows only one single-family dwelling per lot; Medium Density Residential (R2) which allows multi-family dwelling units; and, Planned Community (PC) in which the allowable density is based on an approved precise development plan.

Permitted Use

Uses allowed on lands designated Urban Residential are limited to those defined in the Coastal Zoning Code for the applicable zoning district. Principally permitted uses on lands zoned Low Density Residential (R1) are limited to single family residential uses. Principally permitted uses on lands zoned Medium Density Residential (R2) are limited to medium density single family and multifamily housing as described in the Coastal Zoning Code for the designation. Principally permitted uses on lands zoned Planned Community (PC) are limited to those described in the precise development plan or approval for the planned community. Low Density Residential (R1) allows for the development of single family residences and associated accessory structures and uses on small lots developed in accordance to density. Medium Density Residential (R2) allows for the development of multifamily residential development in accordance with permitted density, including those developed as transitional and density bonus projects. The Coastal Zoning Code further describes the uses and densities that are permitted within this category and provides additional standards for such development.

Additional resource, recreational, or neighborhood serving uses and structures accessory to and compatible with the primary use and consistent with the Local Coastal Program may also be allowed subject to permitting requirements of the Coastal Zoning Code. In addition, allowed uses located in an environmentally sensitive habitat area, habitat buffer, riparian corridor, critical habitat area, major view, or cultural resource area shall not be considered principally permitted uses.

Permitted Residential Density. Allowable residential density for Urban Residential areas ranges from 1 to 6 units per acre in low density residential zones and 6 to 12 units per acre in medium density residential zones. Residential densities are based on availability of public services and infrastructure, land use compatibility, environmental suitability, projected population and development, and neighborhood character. New lots shall not be smaller than 6,000 square feet. Environmental suitability includes but is not limited to protection of habitat area, riparian corridors, major views, minimizing the risk of hazards and vulnerability to sea level rise, or coastal bluff erosion.

Residential density may be increased if the project qualifies under the state density bonus program outlined in California Government Code Section 65915; or the County supplemental density bonus program or housing opportunity area program; and in the Coastal Zoning Ordinance under affordable housing program requirements and incentives. Low Density Residential parcels with a mapped density of 4 units per acre may be increased to a maximum of 11 units per acre as a Housing Opportunity Ownership project. Mapped densities of 7 to 8 units per acre may be increased to a maximum of 16 units per acre as a Housing Opportunity Rental project. Approval of any increase in residential density is subject to specific findings regarding the adequacy of public services, consistency with the Local Coastal Program, and mitigation of impacts to coastal resources. Application of higher residential density under the density bonus or housing opportunity programs may require a Local Coastal Plan Amendment.

Designation Criteria. A Land Use Map Amendment to apply the Urban Residential land use designation requires a Local Coastal Plan Amendment subject to certification by the California Coastal Commission and must meet the standards in Chapter 3 of the California Coastal Act. A Local Coastal Plan Amendment to apply the Urban Residential land use designation must also be consistent with other policies of the Local Coastal Plan and meet all of the following criteria:

(1) Lands are not converted from an Agricultural, Commercial Fishing or Commercial Tourist land use category, which shall have priority over residential land uses.

(2) Lands are within a designated Urban Service Area.

(3) Adequate water, sewer, public safety, park, school services, and other necessary infrastructure are available or planned to be available.

(4) Lands have convenient access to designated arterial or collector roads.

(5) Lands are not subject to unacceptable levels of risk such as flooding, geologic hazards, excessive noise, or other hazards.

(6) Lands have convenient access to commercial uses and community services.

3. LAND USE POLICY

3.1 Outer Continental Shelf Development Policy

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

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

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

3.1.1 On-Shore and Off-Shore Oil and Gas Facilities

Concerns in the 1980s about development of the Outer Continental Shelf led to the 1986 approval of Ordinance 3592R, known as the On-Shore Oil and Gas Facilities ordinance of Sonoma County. The ordinance is the result of a countywide ballot initiative that requires voter approval of any proposed Local Coastal Plan Amendment to allow onshore facilities that would support oil and gas development of the outer continental shelf. Section 31-3(a) of the ordinances states:

> *When any person proposes to undertake the development within Sonoma County of any on-shore energy facility relating to the exploration or development of off-shore oil or gas resources and requests an amendment of the County's Certified Local Coastal Program to facilitate such development, a determination by the Board of Supervisors pursuant to Public Resources Code section 30515 that the proposed amendment is in conformity with the policies of the Coastal Act and that the Certified Local Coastal Program should be amended to incorporate such*

development shall not be effective unless a majority of the electors of Sonoma County in a general or special election, approve the proposed amendment. The decision on whether to call a special election or a general election shall be in the discretion of the Board of Supervisors.

Following adoption of Ordinance 3592R, the County initiated a more detailed study of the potential impacts of onshore support facilities on the Sonoma County coast. This study, entitled *"Offshore Oil Development: Onshore Support Facilities Feasibility Study"* was completed.

One of the primary findings of the study is that no suitable sites exist on the Sonoma County coast for industrial onshore oil support facilities. The study indicates that onshore support facilities for offshore oil production are inappropriate due to a number of constraints, which include:

(1) Bodega Bay, the only existing harbor on the Sonoma County coast, has insufficient space and infrastructure to accommodate a crew or supply base;

(2) Public services such as water and sewer are inadequate;

(3) Over 50 percent of the Sonoma County coast is in State and County parks, where development could preempt coastal access and conflict with recreational activities;

(4) County and State policies protect sensitive biological habitats and scenic corridors, which could be adversely affected by development;

(5) There is a lack of affordable or market housing to accommodate a substantial new employment force;

(6) Local Coastal Plan policies support ecosystem and habitat protection and coastal dependent visitor serving and recreation uses over other uses on the Sonoma County coast; Sonoma County's coastal dependent industries include commercial fishing and recreation and tourism; and

(7) No land use designation in the Local Coastal Plan allows development of onshore oil and gas support facilities.

The report noted that Bodega Bay could be considered as a site for a very limited and restricted crew or supply base on land designated Commercial Fishing. However, sea level rise may further reduce the feasibility of major facilities along the shoreline. A complete environmental analysis, including the potential effects of sea-level rise, and Local Coastal Plan Amendment, including voter approval pursuant to Ordinance 3592R, would be required.

In 2015, the Greater Farallones National Marine Sanctuary was expanded to approximately 3,295 square miles and envelopes the Cordell Bank National Marine

Sanctuary of 1,286 square miles, encompassing the entire Sonoma County coastline extending from just south of the Bolinas Lagoon in Marin County to a few miles north of Point Arena Lighthouse in Mendocino County. This area encompasses one of the most productive upwelling zones along the Pacific Coast providing nutrients that fuel an incredibly productive ocean area protected by the Marine Sanctuaries. Offshore oil drilling is prohibited within the Sanctuary's boundaries. Thus, any potential future offshore oil drilling would be limited to areas beyond the Greater Farallones National and Cordell Bank National Marine Sanctuary boundaries.

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

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

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

The following policies shall be used to achieve these objectives:

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

Policy C-LU-1b: Prohibit onshore oil and gas support facilities within the Commercial Fishing land use category. **(Existing LCP Revised)**

3.2 Community Policies

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

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

construction of a State Highway 1 Bypass, but that project is no longer planned for construction and is not included in the General Plan or the Local Coastal Plan.

Increased tourism on the Sonoma County coast may result in an imbalance between local and tourist oriented commercial development. Visitor-serving uses, particularly lodging, are often located near scenic resources. Too many facilities in sensitive scenic areas may harm the unique qualities of the coast which are protected under the California Coastal Act and by the Local Coastal Plan.

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

Objective C-LU-2.1: Provide most of the new housing in Bodega Bay. Provide residential development in rural areas at very low densities to maintain local resources.

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

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

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

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

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

The following policies shall be used to achieve these objectives:

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

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

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

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

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

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

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

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

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

Policy C-LU-2j: Continue to designate as Rural Communities the lands within existing residential subdivisions Jenner, Rancho del Paradiso, West Beach, Sereno del Mar, Gleason Beach, Carmet, and Salmon Creek. **(Existing LCP Revised)**

Policy C-LU-2k: Continue to designate as Rural Communities the Timber Cove, Timber Cove Inn, and existing developed areas adjacent to the subdivision south to and including the Fort Ross Store. **(Existing LCP Revised)**

Policy C-LU-2l: Continue to designate as Rural Communities existing developed areas at Duncans Mills, Valley Ford and Stewarts Point. **(Existing LCP Revised)**

Policy C-LU-2m: Water and sewer service extensions to public parklands outside of Urban Service Areas may be allowed only where consistent with the Public Facilities and Services and Public Access Elements. **(Existing LCP Revised)**

Policy C-LU-2n: Provide for commercial development only within designated Urban Service Areas and Rural Community boundaries, except where development proposed for areas beyond these boundaries would be consistent with the Public Facilities and Services and Public Access Elements. **(Existing LCP Revised)**

3.2.1 The Sea Ranch

Background

The northern 10 miles of the Sonoma County coast is occupied by The Sea Ranch, a planned community of 5,200 acres conceived and designed by Oceanic California, Inc. (OCI) in the mid-1960s in the early days of the environmental movement. The Sea Ranch, now famous for its distinctive architecture and sensitive integration of the built and natural environments, is the most populous community on the coast and has become a major tourist destination.

Although planned primarily for second homes, The Sea Ranch now contains a community of full-time and part-time residents. All residential lots at The Sea Ranch are in a homeowners' association governed by one of the nation's first set of Codes, Covenants, and Restrictions (CC&Rs) that set forth the conditions of ownership. All aspects of development in the community must be reviewed and approved by a semi-autonomous Design Committee composed of architects and landscape architects. The work of the Design Committee is guided by The Sea Ranch Design Manual and Rules updated and adopted by the Board of Directors in 2007 and recorded with Sonoma County.

Sonoma County approved the concept plans for The Sea Ranch planned community in two phases, 1964 and 1968, and subsequently adopted a Precise Development Plan for all 5,200 acres. The Precise Development Plan called for 5,200 residential lots, golf course, lodge, recreational facilities, commercial area, airport, equestrian facilities, timber preserves, and more than half of the property as common area (Commons).

California Coastal Act and Bane Bill

Development at The Sea Ranch was underway when in 1972 passage of the California Coastal Initiative stopped the progress of development at The Sea Ranch. In 1976 the State Legislature enacted the California Coastal Act, establishing the California Coastal

Commission and approving the State Coastal Plan. In 1979 the Coastal Commission adopted Overall Conditions that were to be met before allowing further development of lots at The Sea Ranch. Most of the conditions were incorporated into the Bane Bill, enacted by the State Legislature in 1980 to resolve issues regarding residential density, house design, views to the ocean, public access, State Highway 1, and water storage and septic systems. Under the Bane Bill, OCI reduced the number of residential lots by 55 percent from 5,200 to 2,029; but the final decision on the maximum number of lots was left to be determined by Sonoma County and included in its Local Coastal Plan.

In addition to a reduction in the number of houses that could be built at The Sea Ranch, The Bane Bill established other land use requirements and standards which have resulted in the following:

(1) *Public Access*: Oceanic California, Inc. and The Sea Ranch Association granted to Sonoma County easements for parking areas and public access trails from State Highway 1 to each of five beaches, and for public access to the northern third of the Coastal Bluff Trail, in addition to the 75 acres OCI had already deeded to the County for the regional park and campground along the Gualala River (Gualala Point Regional Park; see Public Access Plan in **Appendix B**).

(2) *View Corridor Easements*: OCI and The Sea Ranch Association granted easements allowing Sonoma County to remove trees to preserve views in 15 view corridors from State Highway 1 to the ocean.

(3) *Design Criteria*: Sonoma County imposed limits, established by the California Coastal Commission, on the height, size, and bulk of houses on lots within view corridors.

(4) *State Highway 1 Easements*: Sonoma County acquired easements along State Highway 1 for highway improvements including left-turn lanes, turnouts, and a bicycle lane north of Walk-on Beach.

(5) *Water Storage*: The Sea Ranch increased its water storage capacity to protect Gualala River flows for coho salmon and steelhead trout.

(6) *Septic Systems*: The Sea Ranch established a program for monitoring septic systems.

In exchange for accepting these changes to its approved development plan, The Sea Ranch received $500,000; the right for owners to build on residential lots without obtaining a Coastal Development Permit; and a guarantee from the County that no further public access would be required.

Sonoma County Plan

In 1982 Sonoma County revised its 1981 Local Coastal Program to incorporate the provisions of the Bane Bill, and adopted *The Sea Ranch Geographic Area of the Land Use and Implementation Plan*. The Plan included four major changes to land use at The Sea Ranch:

(1) *Additional Lots*: An additional 300 residential lots permitted.

(2) *Affordable Housing*: Designation of 15 percent or 45 of the 300 lots for employee housing in Unit 35D.

(3) *Transfer Site*: Designation of Unit 39 as the transfer site, to be subdivided into 100 lots and deeded to the Coastal Conservancy. The policy was to transfer density from old subdivisions elsewhere on the Sonoma Coast to this site. The total number of residential lots permitted would increase to 2,429.

(4) *Lodge Expansion:* Addition of 100 rooms to The Sea Ranch Lodge contingent on construction of the employee housing.

In 1982 the above land use modifications plus the Bane Bill provisions were incorporated into *The Sea Ranch Precise Development Plan*.

Property Sale and Developer Exit

After a period of eight years, building again proceeded at The Sea Ranch. Oceanic California, Inc. was sold, and in 1988 the new owner attempted to recoup some losses by selling off some of its Sea Ranch holdings including the Sea Ranch Lodge; the golf course; and the South, Central, and North Timber Production Zones. The Sea Ranch Association became the owner of the corporation yard, its office on Annapolis Road, and a 147-acre parcel along State Highway 1, named the remnant lands, which contain a site reserved for a school by Horicon School District. Only the residential lots are included in The Sea Ranch Association, but the Design Committee continues to have design review authority over development of the original Sea Ranch parcels with the exception of the Timber Production Zones. By the mid-1990s, OCI and its successor were no longer associated with The Sea Ranch.

Development

Residential

In 2018, The Sea Ranch included 1818 housing units, about 1,500 full-time residents, and 480 residential lots remaining to be developed.

The 30-acre transfer site was subdivided and deeded to the Coastal Conservancy (Conservancy). No density transfer took place; instead the Conservancy sold the

property. The new owner subdivided 7 acres into 7 lots that have been sold and developed. The remaining 23 acres is now a single parcel – the only parcel of significant size remaining for residential development at The Sea Ranch. Development on this parcel is constrained by environmental issues evaluated in an Environmental Impact Report prepared at the time the Conservancy sold the property resulting in conservation easements encumbering a significant portion of the property.

The site at the intersection of State Highway 1 and Annapolis Road was designated as a future church site. By 2000 it was apparent that no church was interested in developing the site, therefore The Sea Ranch Association re-designated it and sold it as a single-family residential lot. It will become part of the Association when the owner decides to build.

Affordable Housing. Adoption of the California Fair Housing Act in 1985 made it illegal to allocate subsidized housing units according to the source of income. Therefore, the employee housing became affordable housing open to anyone meeting the income criteria. Oceanic California, Inc. built the first 15 affordable housing units in the late 1980s, and then deeded these units and the remaining lots to a local consortium that purchased The Sea Ranch Lodge and golf course. The consortium built the remaining 30 affordable units and rebuilt one of the original 15 units that had burned down. The entire affordable housing project was acquired by the non-profit affordable housing developer, Burbank Housing Development Corporation (Burbank Housing), which has since owned and managed the affordable housing complex either directly or through a subsidiary.

Burbank Housing later found that increases in The Sea Ranch Association homeowners' association dues made it difficult to finance needed maintenance and repairs to the affordable housing units. Under its governing documents, The Sea Ranch Association must treat all owners equally and, therefore, could not reduce dues on the 45 affordable housing lots. In 2008 The Sea Ranch Association, Burbank Housing, and Sonoma County began a multi-year process to seek a solution. They reached an agreement in 2015 under which The Sea Ranch Association reduced the homeowners' association dues for the affordable housing units so that Burbank Housing can continue to provide the affordable units.

Recreational

The Bane Bill required The Sea Ranch Association and Oceanic California, Inc. to dedicate public access easements for five new vertical accessways with lateral connections to beaches, and a bluff top trail in the northern three units of The Sea

Ranch. These accessways have been dedicated and accepted, and are maintained by Sonoma County Regional Parks.

The Sea Ranch contains a public 18-hole golf course. The public has access to the five largest beaches and more than 3 miles of trail along the coastal bluffs. The Sea Ranch Lodge has 19 rooms, and The Sea Ranch contains about 400 houses for rent. A chapel located off State Highway 1 is open to the public.

Private recreational development at The Sea Ranch includes over 50 miles of hiking, equestrian, and bike trails; and three recreation centers with swimming pools, tennis courts, meeting rooms, and space for other activities. The Del Mar Center, One-eyed Jack, Knipp-Stengel Barn, and Hot Spot facilities provide space for community gatherings. A private airstrip and hangars are located near Annapolis and Timber Ridge Roads.

Commercial

The Sea Ranch Lodge and Golf Course are now under separate ownership, but bound by a 1991 agreement establishing the development potential and limits on each property. Under this agreement, up to 40 of the lodge rooms could be built at the golf course. Expansion of The Sea Ranch Lodge was approved by both The Sea Ranch Design Committee and Sonoma County. No expansion has taken place, and the Design Committee approval has expired.

Most commercial services for residents and visitors to The Sea Ranch are located in Gualala in Mendocino County, about one mile north of The Sea Ranch. Commercial services on or near The Sea Ranch include a building supply store, bakery and coffee shop, and offices on Verdant View Way just off Annapolis Road; a post office, restaurant, and gift shop at The Sea Ranch Lodge; and a grocery store, deli, and restaurant at the historic Stewart's Point Store, about four miles south of The Sea Ranch.

Infrastructure

Water. The Sea Ranch Water Company (a wholly owned publicly regulated subsidiary of The Sea Ranch Association) completed a $7 million upgrade of its water storage and transmission infrastructure in 2014. The project included the following components: an upgrade to the water treatment plant to improve filtration and pumping; replacement of over two miles of high capacity water transmission lines; a new pumping station to improve fire flows to 11 square miles at the south end of The Sea Ranch; and a new concrete storage tank of 900,000 gallons to serve as the master water supply between the water system wells and reservoir and The Sea Ranch neighborhoods.

Wastewater. Two sewage treatment plants operated by The Sea Ranch Water Company under contract with the Sonoma County Water Agency serve units at The Sea Ranch North and The Sea Ranch Central. About 1,700 units could be connected to the sewer system under build-out of these areas.

The remainder of The Sea Ranch is served by septic systems. About 1,600 lots could be developed on individual septic systems. An on-site wastewater management district oversees the monitoring and compliance of the septic systems and reports annually to the North Coast Regional Water Quality Control Board and Permit Sonoma.

Telecommunications. In 2014, The Sea Ranch Association began work on a $5.5 million community-wide telecommunications network (Fiber to the Home Telecommunications Network) to provide fast, reliable, high capacity, and affordable internet and telephone service to The Sea Ranch. The Association estimates the project will be constructed and operational in 2016.

Programs and Plans

Scenic View Easements. The Bane Bill required the California Coastal Commission to establish scenic view easements along State Highway 1. Within these easements removal of trees to restore and preserve scenic views from the highway would be allowed. In 1980 the California Coastal Commission designated the locations and established the design criteria for the "Scenic Views." In 1982 the Scenic Views and associated design criteria were incorporated into the Local Coastal Plan. In 1983 the County acquired the easements for the Scenic Views, maintained by Sonoma County Regional Parks.

Height, Site, and Bulk Criteria. The Bane Bill also required the California Coastal Commission to specify design criteria for any development visible from areas with Scenic Views. Adopted by the Coastal Commission in 1982, the Height, Site, and Bulk Criteria specify certain lots that are subject to height restrictions, volume or bulk limits, and/or siting limitations due to topography and/or the location of trees. The criteria are enforced by the County through the permit process and the Sea Ranch Design Review Committee.

Comprehensive Environmental Plan. In 1988 The Sea Ranch Association hired an environmental planner to help members prepare an environmental plan for The Sea Ranch. The Sea Ranch Comprehensive Environmental Plan was adopted in 1996 and updated in 2004 and 2013. The Environmental Plan provides detailed information and guidelines on land use, building design, landscape, community facilities, infrastructure, public safety, and regional relationships. It is used by The Sea Ranch staff, committees, and Board of Directors to guide decisions.

Fuel Management Plan. In 2002 The Sea Ranch Association hired a fire management consultant to assist with development of a Fuel Management Plan to reduce fuel load and increase fire safety. The focus of the Plan is treatment of areas adjacent to State Highway 1 and in the neighborhoods to ensure roads are safe for evacuation, egress, and movement of fire control vehicles and equipment. A major component of the Plan is a sheep grazing program in which a herd of 350 – 400 sheep are moved every few days among the west side meadows, along the highway, and on the uphill eastern side of The Sea Ranch where the fire hazard is greatest.

Biotic Resource Inventories. In 2013, The Sea Ranch Association Planning Committee formed a Biotic Resources Subcommittee, the mission of which is to document and preserve the rare, endangered, and unique plant and animal species at The Sea Ranch. Plant surveys were conducted in 2014 and 2015, and animal surveys are planned for 2016.

GOAL C-LU-3: **Design and approve new development at The Sea Ranch according to the Bane Bill.**

Objective C-LU-3.1: Apply the Bane Bill design criteria to development on the designated "Bane Bill" lots at The Sea Ranch.

The following policies shall be used to achieve these objectives:

Policy C-LU-3a: The Height, Site, and Bulk Guidelines for The Sea Ranch adopted pursuant to Public Resources Code Section 30610.6 (e) shall be applied to all new development subject to design review. **(Existing LCP Revised)**

Policy C-LU-3b: Building and other permits or subdivision approvals for properties subject to design review by The Sea Ranch Design Committee shall not be issued unless the applicant has first received final approval from The Sea Ranch Design Committee. **(New)**

3.2.2 Bodega Bay

Background

Bodega Bay, the largest general commercial center on the South Sonoma Coast, had a permanent population of about 1,077 in 2010. There were a total of 533 occupied housing units out of a total of 1,060 available in 2010, which generated a vacancy rate of 49.7 percent. The majority of the vacant housing units (40.2 percent) were designated for seasonal, recreational, or occasional use, while the remaining 9.5 percent were for sale, for rent, or for other uses. The Harbor View Subdivision, completed in 2005, added 70 single-family parcels and one multi-family parcel for 14 affordable apartments. The

14 apartments were constructed in 2008. The subdivision site improvements were completed, though none of the single-family units have been constructed as of 2017.

The issues associated with development in Bodega Bay include lands with sensitive biotic resources and geologic hazards, water supply, and traffic. Traffic congestion is already severe on summer weekends through Bodega Bay. Traffic volumes on State Highway 1 will continue to increase through Bodega Bay due to increases in general recreational traffic on the coast.

Under the previous Local Coastal Plan, a phased Land Use Plan comprised of Phases I and II was proposed to coordinate the population and development of Bodega Bay with development of a road off State Highway 1 that would bypass the center of town – the Bodega Bay Bypass. The Bodega Bay Bypass would provide significant relief to congestion problems in Bodega Bay and allow for expanded development in the community. Phase II was dependent on construction of the Bodega Bay Bypass. Phasing was accomplished by placing a holding zone of Rural Residential with a frozen lot size (RR B8) on all Phase II development lands, and in no case were Phase II lands to be rezoned to their maximum potential under the Land Use Plan until all the requirements for Phase II development were met, mainly the Bodega Bay Bypass. Due to the lack of available highway funding, regulatory constraints, and other competing priorities, construction of the bypass is unlikely to be realized in the reasonably foreseeable future. As a result, the Bypass and the associated Phase II development it would have facilitated are no longer included in the Local Coastal Plan. **Figure C-LU-1j** shows the Bodega Bay Land Use Plan based on the Phase I Land Use Plan as described in the previous Local Coastal Plan. The Land Use Plan proposes a level of development consistent with current traffic and natural resource constraints in Bodega Bay.

The Bodega Bay Public Utilities District provides water supply and wastewater treatment for Bodega Bay. Water supply is a constraint to development at Bodega Bay. Water supply is adequate for existing and some additional development, but has not been sufficient for total approved development. The new Sand Dunes Well constructed in 2007 is expected to increase Bodega Bay Public Utility District water supply by 50 percent, sufficient for the planned population and development without the by-pass or additional Phase II units. The wastewater treatment plant is adequate for substantial additional development and is not a constraint to moderate future development.

Commercial Development. The California Coastal Act requires that visitor-serving commercial facilities have priority over private residential, general industrial, or general commercial development but not over agriculture or coastal dependent industry. The Land Use Plan proposes three types of commercial development for Bodega Bay: fishing

related in the Commercial Fishing land use category, visitor- serving in the Commercial Tourist land use category, and village commercial in the Commercial Service land use category.

The Land Use Plan accommodates a marina expansion of up to 300 berths, including Spud Point Marina; and designates 20 acres of land for fishing support facilities in the "Fishing Commercial" land use category. Fishing support facilities generally are to be located on the north and west sides of Bodega Bay, away from visitor-serving commercial facilities to minimize conflicts between commercial fishing and tourist activities.

Additional visitor-serving facilities are accommodated in the "Commercial Tourist" land use category. The Bodega Bay Land Use Plan recognizes existing facilities, including expansion of the Tides east of Highway 1, and designates six acres of land on Eastside Road as "Commercial Tourist".

Commercial facilities to meet the needs of local residents are currently inadequate. The Land Use Plan calls for development of a small Village Commercial center between Taylor Tract and the major proposed residential development area. The center would accommodate a post office, fire station, retail shops, bank, community center, and similar uses. This location minimizes need for vehicular travel.

Residential Development. Residential development in Bodega Bay would be accommodated through buildout of existing vacant residential lots in the community at the edge of town. To encourage construction of new affordable and moderate housing in Bodega Bay, the Local Coastal Plan proposes three approaches:

(1) Designate the Urban Residential area located immediately south of the Inn at the Tides as a Housing Opportunity Area where a density bonus, consistent with the Affordable Housing Policy may provide additional affordable housing units.

(2) Provide areas for temporary camping in RVs for transient fishermen on lands designated Commercial Fishing.

(3) Encourage the development of Accessory Dwelling Units on qualifying residential parcels in the Coastal Zone.

Design guidelines for the area adjacent to Bodega Bay are proposed to maintain the character of the existing town in the new development area by limiting building size and height, road widths, and improvements.

Rural residential land use designations on the edge of Bodega Bay provide a transition between agriculture and urban levels of development. The rural residential designation with five acre densities between the older town and Bodega Harbor is essentially to

reserve this area for possible future urban development once planned development areas buildout.

The Bodega Bay Urban Service Boundary Area generally includes the approved units of the Bodega Harbor Subdivision, developed areas of Bodega Bay, newly designated residential areas south of the existing town between State Highway 1 and the former Bodega Bay Bypass route, and land within the Bodega Bay Public Utilities District service area between the former bypass route and Bodega Harbor.

GOAL C-LU-4: **Plan and design new development in Bodega Bay for appropriate lands, contingent on availability of public services, and so as to maintain local resources.**

Objective C-LU-4.1: Provide most of the new housing in Bodega Bay. Provide residential development in rural areas at very low densities to maintain local resources.

Objective C-LU-4.2: Balance residential and commercial development in Bodega Bay where adequate public services allow for residential and commercial expansion. Encourage a mix of price and rent levels.

Objective C-LU-4.3: Designate Bodega Bay the major retail and service center for the Coastal Zone.

Objective C-LU-4.4: Limit new industrial development in Bodega Bay primarily to the commercial fishing and other industries which depend on the marine environment and resources.

The following policies shall be used to achieve these objectives:

Policy C-LU-4a: All new development within the Urban Service Area Boundary of Bodega Bay shall be served by the Bodega Bay Public Utility District. **(Existing LCP Revised)**

Policy C-LU-4b: Encourage the provision of new affordable housing units by the following means: 1) designate the primary residential area south of old town Bodega Bay as a Housing Opportunity Area, and 2) provide areas for temporary vehicle camping in RVs for transient fishermen on lands designated Commercial Fishing. **(Existing LCP Revised)**

Policy C-LU-4c: New development proposed within the Bodega Bay Urban Service Area shall require the applicant to provide evidence in the form of a letter from Bodega Bay Public Utility District of an adequate water supply to serve the development. If an adequate water supply is not available to serve all planned development, development shall be limited by implementing a system for allocating building permits according to

the available water supply, or the development shall be contingent upon provision of additional water supplies. **(Existing LCP Revised)**

Policy C-LU-4d: A commercial tourist project in the Recreation land use category in Bodega Bay may be allowed if it can meet all LCP provisions, visual design guidelines, preserve on-site trees for wildlife habitat, and mitigate adverse traffic impacts. Any commercial tourist project proposed for Harbor Loop Road (also known as Smith Brothers Road) area shall be considered only in connection with a comprehensive development plan for the entire Harbor Loop Road area. **(Existing LCP Revised)**

Policy C-LU-4e: A Commercial Tourist (CT) land use category has been applied on the parcels occupied by the Bodega Harbor Inn (Assessors Parcels 100-080-070, 100-080-016 and 100-080-017) only to accommodate the historic and ongoing use of the property as a 15-unit motel. To ensure compatibility with the surrounding residential area, no other uses permitted in the CT Zone are allowed and any structures that exceed 16 feet in height shall not be permitted. Design review shall be required on any new construction outside of the existing building footprints. **(Existing LCP Revised)**

Policy C-LU-4f: Consider requiring intersection improvements at State Highway 1 and Eastside Road and/or Bay Flat Road as a condition of approval of development along Eastside Road. **(Existing LCP)**

3.3 Affordable Housing Policy

The major goal of this Affordable Housing section is to protect and promote low and moderate cost housing in the Coastal Zone to support California Coastal Act policies regarding housing, access, and Coastal Zone priority uses. Visitor-serving commercial development, agricultural production, and coastal-dependent uses, are all, to varying degrees, dependent on the availability of accessible seasonal and year round housing opportunities for persons operating or employed in these industries. Transit service to the Coastal Zone is limited. The nearest incorporated city, Sebastopol, is more than 10 miles from the edge of the coastal zone and more than 15 miles to Bodega Bay, the most populous area of the Sonoma Coast. High coastal property values and the remote nature of the Sonoma County Coastal Zone are unique considerations for affordable and workforce housing policies. This Local Coastal Program is intended to encourage housing opportunities for persons of low and moderate income, improve coastal access, and to support workforce housing opportunities related to agriculture, visitor serving, and coastal dependent resource uses.

The County's General Plan Housing Element sets out countywide goals, objectives, policies and programs to encourage a diverse housing stock to meet the needs of households at all income levels, especially for the lower income and special needs populations. Relevant housing policies from the state-certified Housing Element which are applicable in the Coastal Zone have been incorporated into this section.

A review of permit records from 2000 to 2014 shows that 562 dwelling units have been built in the Coastal Zone. Of the new dwelling units there were 532 single-family dwelling units, 1 second unit, 28 multi-family housing of 2-4 units, and one agricultural employee unit. Two dwelling units were demolished over the 14-year period for a net increase of 560 units. Over this time period no manufactured homes or multi-family housing greater than 4 units were constructed.

Existing affordable housing units in the Sonoma County Coastal Zone can be found at The Sea Ranch and in Bodega Bay. There are 45 lower income rental units that were required as part of a 300-unit expansion of The Sea Ranch development. In July 1982, The Sea Ranch Precise Development Plan and Policy Statement as adopted by the Sonoma County Board of Supervisors included a requirement for 45 units of "employee housing," subsequently changed to "affordable housing," to be located in Unit 35-D at the northeast corner of The Sea Ranch. In 1985 Oceanic California Inc. recorded annexation of The Sea Ranch expansion lots with affordability covenants to implement The Sea Ranch Employee Housing Program for 45 units. Built in 1993 by the Burbank Housing Sea Ranch Corporation, the 45 units consist of the following: 8 very low income (at or below 50 percent of median income) units, 31 low income (at or below 60 percent of median income) units, and 12 low income (at or below 80 percent of median income) units. The subdivision agreement for the affordable housing development requires 22 of the 45 units to be rentals; as of June 2015, all 45 units were affordable rentals.

The affordable housing at the Harbor View Subdivision in Bodega Bay was required under Coastal Permit CP93-289 for the subdivision of 25 acres into 70 single-family residential parcels averaging 7,300 square feet. Built in 2009 by the developer Harbor View Village consists of 14 low income (80 percent of medium income) rental units on one parcel.

Two of the available affordable housing sites listed in the Type C Housing Site Inventory compiled as part of the 201 Housing Element Update are located in the Coastal Zone. Both sites are in Bodega Bay (APNs 100-200-037 and 100-180-022); they have a combined net potential for 150+ Type C units if the units are clustered.

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

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

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

The policies below shall be used to achieve these objectives:

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

Policy C-LU-5b: Continue the County's existing density bonus programs, including the state density bonus program and the County's programs. Continue to evaluate these programs in view of changing housing needs and policies, and expand or modify as needed to increase opportunities for housing. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1b)**

Policy C-LU-5c: Ensure that design review, development standards, and conditions of approval for affordable housing projects do not result in a reduction of allowable project density or in the number of affordable units, unless the project as proposed would result in adverse impacts, and there is no other feasible method to mitigate the adverse impacts. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1c)**

Policy C-LU-5d: Encourage retention and further construction of small rental units such as Accessory and Junior Dwelling Units and single room occupancy units, as well as large rental units with more than 3 bedrooms. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1f)**

Policy C-LU-5e: Continue to administer the County's Mobile Home Rent Stabilization Ordinance. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1g)**

Policy C-LU-5f: Continue to apply state law to Mobile Home Park Conversions to Resident Ownership, including implementation of SB 510 (Jackson 2013), in order to ensure that residents are afforded full consideration and all protections under the law. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1h)**

Policy C-LU-5g: Prohibit the use of Accessory Dwelling Units for Transient Occupancy, occupancy of less than 30 days. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1l)**

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

(1) The Type "A" Rental Housing Opportunity Program allows a density between 12 and 30 units/acre as long as affordability levels are met - at least 40% of total units as affordable to Low or Very Low Income households. Type "A" Rental Housing Opportunity Areas are established on sites which have a Local Coastal Plan medium density residential designation (Urban Residential 6-12 dwelling units/acre) and are zoned R2 (Medium Density Residential). The residential density for a Type "A" project may be increased to 100 percent above the mapped designation to a maximum density of 24 dwelling units/acre. Development standards used for Type "A" housing projects allow increased height, reduced parking requirements, and less stringent setbacks so long as privacy is maintained.

(2) The Type "C" Ownership Housing Opportunity Program allows a density of 11 units per acre for ownership housing projects as long as affordability levels are met - 20% affordable to Low Income households and 80% affordable to Moderate Income households. Type "C" Housing Opportunity Areas are established ~~in~~ on sites which have a Local Coastal Plan low density residential designation (Urban Residential 1-6 dwelling units/acre. The residential density for a Type "C" project may be increased to almost 100 percent above the mapped designation to a maximum density ~~is~~ of 11 dwelling units/acre.

(3) Rental Housing Opportunity Type "A" and Ownership Housing Opportunity Type "C" projects shall comply with all applicable provisions, including development standards and long-term affordability requirements, of Chapter 26C (Coastal Zoning Ordinance) of the Sonoma County Code.

(4) Housing Opportunity Type "A" and Type "C" programs shall apply to housing development consisting of five or more dwelling units. **(Existing LCP Revised per HCD certified General Plan 2014 Housing Element)**

Policy C-LU-5i: Encourage a mix of low and moderate income housing units, and rental and sale units. Encourage diverse unit design including visitability and universal

design. **(Existing LCP Revised per HCD certified General Plan 2014 Housing Element)**

Policy C-LU-5j: Continue to encourage affordable "infill" projects on underutilized sites within Urban Service Areas by allowing flexibility in development standards pursuant to state density bonus law [California Government Code Section 65915, including subsection (m)]. **(New: HCD certified General Plan 2014 Housing Element Policy HE-3j)**

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

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

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

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

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

Policy C-LU-5p: Prohibit conversion of rental units currently providing low and moderate income housing opportunities unless the conversion provides a greater affordable housing opportunity. **(Existing LCP)**

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

(1) The surplus of vacant multifamily residential units offered for rent or lease must be in excess of 5 percent of the available multifamily rental stock in the community in which the proposed project is located.

(2) At least 30 percent of the units included in the proposed condominium conversion must be reserved for sale to Low and Very Low Income households by means of an Affordable Housing Agreement to ensure that such units remain affordable to Very Low and Low Income households for the maximum period allowed by law.

(3) Tenants must be granted the right of first refusal concerning the purchase of the units. Tenants who are 60 years or older should be offered lifetime leases. Tenants not qualifying for lifetime leases must be offered a 10-year lease. The subdivider must provide a plan to assist in relocating tenants displaced by the conversion to comparable rental housing. **(Existing LCP Revised per HCD certified General Plan 2014 Housing Element)**

Policy C-LU-5r: Allow Accessory Dwelling Units as specified in the Coastal Zoning Ordinance. **(Existing LCP)**

Policy C-LU-5s: Changes in use or closure of a mobile home park shall comply with state law and require a Use Permit. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1m)**

3.4 Visitor-Serving Commercial Facilities Policy

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

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

Ocean-dependent industry, which includes coastal tourism and recreation, makes a substantial contribution to the State's economy. The California coastline includes a diverse group of ocean-dependent economies ranging from densely populated urban areas such as Los Angeles to small rural communities such as Bodega Bay in Sonoma County. These coastal economies all depend on the ocean to varying degrees. While coastal recreation activities themselves have direct commercial value, they also result in significant consumer expenditures on food, transportation, accommodations, and other recreation-related goods and services. In 2018, 24 percent of all tourism business was located in unincorporated Sonoma County and not in one of the nine incorporated jurisdictions. These unincorporated communities include the coastal communities of Bodega Bay, Jenner, and The Sea Ranch, along with other smaller towns. Based on a

respondent generated survey, lodging, which includes a wide variety of classifications like full service lodging, vacation rentals, and campgrounds, contained the greatest percentage of tourist industry business for the County, at 25 percent and just above wineries at 33 percent.

3.4.1 Existing Visitor-Serving Commercial Facilities

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

(1) Visitor-serving commercial facilities or uses include development that provides basic support services for visitors such as motels, restaurants, grocery stores, auto service stations, and public restrooms. Most of these facilities on the Sonoma County coast are both visitor-serving and local-serving.

(2) Local-serving commercial facilities or uses include all other private commercial development that provides for the needs of the local population such as professional offices, utilities, banks, and fishing industry support services.

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

The Sea Ranch

The Sea Ranch has very limited commercial facilities and depends primarily on neighboring Gualala in Mendocino County to serve residents' needs. Appropriate locations for additional commercial development to serve The Sea Ranch are the clubhouse at the golf course, Annapolis Road near the Sea Ranch Airstrip where existing commercial uses are located, and adjacent to The Sea Ranch Lodge. Many homes at The Sea Ranch are rented out through a vacation home rental program.

Stewarts Point

North of Jenner and two miles south of The Sea Ranch on State Highway 1, Stewarts Point has public restrooms and a general store that sells gasoline. Some expansion of these visitor-serving uses, including lodging, may be appropriate at Stewarts Point if it is designed to be consistent with the historic character of the area.

Timber Cove/Fort Ross Area

Ocean Cove. The Ocean Cove Resort is located immediately south of Salt Point State Park and the Salt Point Lodge and restaurant. The property contains a small general store, cabins, and residence on the east side of State Highway 1; and a developed campground with 100 sites, gas pumps, parking lot, and boat launch access to the cove on the west side of State Highway 1. A suitable location for a new facility on the property would be east of State Highway 1, near the Ocean Cove Store and behind a grove of eucalyptus trees that would provide screening. Indoor accommodations or camping should be considered at this location combined with public day use of the sheltered cove. A public horse stable may also be an appropriate use for a small portion of the grassland near the store because Salt Point State Park has miles of riding trails that are immediately accessible from this location. The day use area on the west side of State Highway 1 should include improving the boat launch and picnic facilities with parking on the east side of State Highway 1.

***Stillwater Cove*.** Just south of Ocean Cove Resort is Stillwater Cove Ranch, a former boys' school now open as a small guest ranch. The Ranch is situated away from State Highway 1 and has room for modest expansion of the existing facilities. This parcel also has room for a public horse stable if connecting access through the Ocean Cove property to Salt Point State Park riding trails can be obtained.

***Timber Cove*.** The Timber Cove Inn is the largest overnight facility between The Sea Ranch Lodge and Bodega Bay, and includes a major restaurant and bar. Except for improved public access and parking facilities, the potential for expanding the Inn at this location is limited by septic capability, proximity to the bluff and potential habitat area. The Timber Cove Boat Landing and campground provides comprehensive services to divers on the Sonoma County coast.

***Fort Ross*.** The Fort Ross Store is located at Windermere Point, south of Timber Cove and north of Fort Ross. It is the only grocery between these two points and includes a deli with seating. West of State Highway 1 in this location and adjacent to Fort Ross State Park is the Fort Ross Lodge, a motel with 16 units.

Jenner

Jenner has a restaurant, motel, two bed and breakfast inns, post office, gas station, and other community services. Additional inns, hostels, or similar facilities would be in keeping with Coastal Act policies which encourage visitor-serving facilities in existing developed areas. Served by a mutual water system, there is a moratorium on water hookups due to inadequate water supplies.

Duncans Mills

Duncans Mills is primarily a visitor service center, providing basic tourist support facilities including a general store, restaurant, wine tasting room, bakery, shops, post office, rodeo site, three campgrounds, and sportsmen's club. A private water system serves the community, but there is no sewer system and flooding is a seasonal problem. Expanding the commercial facilities may be possible if septic system requirements can be met.

Bridgehaven

Bridgehaven once had a restaurant, motel, and camping, but presently has only several permanent mobile homes and trailers. Neither public access nor camping is allowed. If changes to this use are requested, efforts shall be made to acquire public access, particularly if the existing trails are prescriptive.

Bodega Bay

Bodega Bay contains several motels, many of which have been expanded since the last Local Coastal Plan was adopted. There may be opportunities for expanding motels, bed and breakfast inns, and guest ranches provided adequate public services are available. Bodega Bay also provides many local and visitor-serving commercial services such as grocery stores, restaurants, gift shops, and art galleries. Many homes in the Bodega Harborview Subdivision are vacation homes.

Valley Ford

Valley Ford is a small community center for dairies in southwestern Sonoma County, providing basic commercial and tourist services. A restaurant, café, market, and hotel provide food service; and gasoline and vehicle repair are available. Valley Ford has a moratorium on connections to its water system. Modest expansion of commercial services would be appropriate if water service becomes available and septic system requirements can be met. One inn, Sonoma Coast Villas, has been developed on agricultural land between Valley Ford and Bodega Bay. There may be other sites with potential for lodging in the area.

Three visitor centers serve the North Coast: Redwood Coasts Chamber of Commerce in Gualala; Russian River Chamber of Commerce and Visitor Center in Guerneville; and Jenner Visitors' Center in Jenner. The South Coast is served by the Sonoma Coast Visitor Center in Bodega Bay. There are an estimated 600 vacation rentals in the Coastal Zone; most of which are located at The Sea Ranch, Jenner and Bodega Bay. **Tables C-LU-4** and **C-LU-5** provide summaries of visitor serving overnight accommodations in the Coastal Zone.

Table C-LU-4: North Coast Overnight Accommodations

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

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

Table C-LU-5: South Coast Overnight Accommodations

Facility	Hotel/Motel Rooms	Campground Spaces
Bay Hill Mansion	5	
Bodega Bay Inn	5	
Bodega Bay Lodge	83	
Bodega Bay Coast Inn & Suites	44	
The Inn at the Tides	85	
Bodega Harbor Inn	16	
Casini Family Ranch		225

Table C-LU-5: South Coast Overnight Accommodations (continued)

Facility	Hotel/Motel Rooms	Campground Spaces
Sonoma Coast State Park Unit – Willow Creek Campground		11
Sonoma Coast State Park Unit – Wrights Beach Campground		27
Sonoma Coast State Park Unit – Pomo Canyon Campground		20
Sonoma Coast State Park Unit – Bodega Dunes Campground		98
Westside Regional Park		47
Doran Beach Regional Park		139
Valley Ford Hotel	6	
Total in South Coast	244	556

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

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

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

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

Planning and Reviewing Visitor Serving Development

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

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

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

Encouraging Visitor Serving Development

Policy C-LU-6d: Consider modest scale expansion of existing visitor-serving and local-serving commercial uses outside of urban service areas and rural community boundaries where water supply and wastewater disposal requirements can be met. **(Existing LCP Revised)**

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

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

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

Policy C-LU-6h: Encourage modest scale expansion of existing or certain new visitor-serving commercial uses east of State Highway 1 near the Ocean Cove Store including overnight accommodations and a public horse stable. **(Existing LCP Revised)**

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

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

Policy C-LU-6k: Encourage modest scale expansion of existing inn facilities and development of a public horse stable at the Stillwater Cove Ranch. **(Existing LCP Revised)**

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

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

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

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

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

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

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

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

4. IMPLEMENTATION PROGRAMS

4.1 Land Use Implementation Programs

Program C-LU-1: Establish standards for the use of existing residences for vacation rentals and hosted rentals. In developing standards consider; requirements for designated property managers, safety, the number of guests allowed for day time and nighttime occupancy, parking, noise, and advertisements. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1k Revised)**

Program C-LU-2: Draft an ordinance to allow workforce/employee housing in the coastal zone. The ordinance is intended to support coastal priority land uses including commercial fishing, resource dependent uses, recreation, and visitor serving commercial uses. Ensure that workforce/employee housing supports priority uses, is scaled and

located appropriately for the size of the supported use and surrounding neighborhood, protects coastal resources and scenic views, has adequate water and waste management, supports reduction of greenhouse gas emissions, and is not vulnerable to climate change related impacts including coastal bluff erosion and sea level rise for the life of the project. **(New)**

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

4.2 Other Initiatives

Other Initiative C-LU-1: Encourage service providers to retain adequate sewer and water service capacities for housing units affordable to Moderate and Low Income households. **(New: HCD certified 2014 Housing Element Policy HE-2h)**

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

Other Initiative C-LU-3: Consider increasing funding priority for the acquisition of affordable units or subsidies. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1e)**

Other Initiative C-LU-4: Conserve the existing affordable housing stock by providing funding through the Community Development Commission to nonprofit organizations to subsidize the acquisition of at-risk properties where those units will be restricted to long-term occupancy by low, very-low and extremely-low income households. **(New: HCD certified General Plan 2014 Housing Element Policy HE-1d)**

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

PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

AGRICULTURAL RESOURCES 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
September XX, 2019

AGRICULTURAL RESOURCES ELEMENT

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AGRICULTURAL RESOURCES ELEMENT

1. INTRODUCTION

1.1 Purpose

To acknowledge the importance of agricultural production within the Sonoma County coast, an Agricultural Resources Element is included in this Local Coastal Plan.

The policies of the California Coastal Act protect the productive resource base, establishing agriculture as a priority use and emphasizing the retention of agricultural land in production.

The Agricultural Resources Element defines agriculture as an industry that produces and processes food, fiber, and plant materials; and includes the raising and maintaining of farm animals including horses, donkeys, mules, and similar livestock. There are no prime agricultural areas in the Coastal Zone. All of the other agriculturally designated lands are considered non-prime grazing lands. The purpose of the Agricultural Resources Element is to establish policies to ensure the protection and maintenance of agriculture for its economic, environmental, and social values. The Element is intended to provide clear guidelines for decisions in the two agricultural zones within the Coastal Zone - Diverse Agriculture (DA) and Land Extensive Agriculture (LEA) - as well as areas where agricultural land uses exist in the Resources and Rural Development (RRD) and Agricultural Residential (AR) zones. The Agricultural Resources Element establishes goals, objectives, and policies to protect and sustainably manage coastal agricultural resources. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives," that support Sonoma County's agricultural character and promote inter-agency and community collaboration. If future technology or enterprises in the agriculture industry requires alternative and yet unforeseen policies and implementation mechanisms, those should be consistent with the County's commitment to encourage maintaining a healthy agriculture sector of the County's economy.

Concerns regarding future agricultural uses in the Coastal Zone include a potential increase in vineyard planting. Vineyard development raises concerns over the potential for impacts to Environmentally Sensitive Habitat Areas (ESHAs), to water quality and quantity, as well as conversion of forest lands and added pressure for development of agricultural support uses (agricultural processing and services). Secondary impacts to public services and traffic from agricultural support uses are also concerns. Future predicted climate change may alter growing conditions that further increase the pressure for vineyard development.

1.2 Relationship to Other Elements

General policy direction for land use decisions in agricultural areas is expressed in the Land Use Element under the Land Extensive Agriculture (LEA) and Diverse Agriculture (DA) land use categories. Other policies related to resource values for Biotic Resources and Scenic Resources are found in the Open Space and Resource Conservation Element. The Water Resources Element includes policies related to water quality and quantity.

1.3 Scope and Organization

This Agricultural Resources Element has four sections: Introduction, Background, Policies, and Implementation Programs. The Background section provides context for the Policies. The Policies section includes Goals, Objectives, Policies and Other Initiatives. Policies expressed in the Agricultural Resources Element are intended to apply only to lands in these two land use categories.

2. BACKGROUND

Figures C-AR-1a through C-AR-1k show the Agricultural Resources in the ten SubAreas of the Sonoma County coast. **Table C-AR-1** lists the area of agricultural land categories by SubArea. The percentage of the total land area for each Subarea for land categories is also provided. According to the California Department of Conservation, Farmland Mapping and Monitoring Program 2012 Important Farmlands dataset, there are no Prime Farmland, Farmland of Statewide Importance, or Unique Farmland on the Sonoma County coast. Grazing Land and Farmland of Local Importance occupy about 25,986 and 2,155 acres of the coast, respectively. Grazing Land occurs in all SubAreas except The Sea Ranch North. The largest acreage and highest percentage of Grazing Land are in the Bodega Bay and Valley Ford SubAreas, respectively. Farmland of Local Importance is located in all ten SubAreas. The largest acreage and highest percentage of Farmland of Local Importance are in the Salt Point and The Sea Ranch North SubAreas, respectively.

Farmland of Local Importance is farmland other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. In Sonoma County, Farmland of Local Importance includes inland hay producing lands and lands with the capability for producing locally important crops but may not be planted at the present time. This land may be important to the local economy due to its productivity or value, as defined by the Board of Supervisors. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county.

Table C-AR-1: Acreage of Important Farmlands by SubArea on the Sonoma County Coast

Subarea	Farmland of Local Importance (acres)	Grazing Land (acres)	Urban & Built-Up Land (acres)	Other Land (acres)	Water (acres)	Total (acres)
1 – The Sea Ranch North	381	0	515	2,066	0	2,962
2 – The Sea Ranch South	323	40	755	1,674	0	2,792
3 – Stewarts Point/Horse-shoe Cove	83	775	1	2,300	0	3,158
4 – Salt Point	492	88	0	5,278	0	5,859
5 – Timber Cove/Fort Ross	159	2,595	37	4,869	0	7,659
6 – High Cliffs/ Muniz-Jenner	143	2,081	68	800	309	3,401
7 – Duncans Mills	32	780	142	215	120	1,290
8 – Pacific View/Willow Creek	99	7,164	191	4,420	1	11,875
9 – Bodega Bay	0	7,519	831	1,806	0	10,156
10 – Valley Ford	485	4,871	63	47	0	5,465
Total	2,196	25,913	2,602	23,475	430	54,617
Percent of Total	4%	47%	5%	43%	1%	

About one third of the Sonoma County coast is used for sheep and cattle grazing or dairies. Grassland suitable for sheep and cattle grazing is found along the coastal terrace and lower slopes on the northern coast and throughout the coast south of Jenner. Dairies primarily occur in the Valley Ford SubArea. The climate and topography of western Sonoma County have largely resulted in the dominance of the grazing industry. The cool, moist climate generally produces better rangeland than inland, reducing the need for supplemental feed and irrigated pasture.

As of 2017, there are no wineries located in the Coastal Zone, although two are located within a mile of the inland Coastal Zone boundary. Similarly, there are no vineyards, currently planted or proposed within the Coastal Zone. While the non-prime soils and lack of year-round water supply generally do not benefit the cultivation of some crops, the entire Coastal Zone has been designated within the Sonoma Coast American Viticulture Area (AVA), including lands outside the Coastal Zone. In 2011 the Alcohol and Tobacco Tax and Trade Bureau approved establishment of the Fort Ross-Seaview American AVA, a small portion of which lies within the Coastal Zone in the vicinity of Fort Ross. Marine sedimentary soils, long sunny days, and cool maritime climate are highly regarded cool-climate growing regions in California. The production of grapes in the Coastal Zone is limited by thin soils, steep slopes and yields are low.

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

The major issues affecting agricultural production on the Sonoma County coast are market conditions for raising cattle and sheep relative to land values, rising prices of coastal rural land, and predators such as coyotes. Pressure for conversion of agricultural uses to residential uses and conflicts between agricultural and non-agricultural uses also occur on the Coast, but to a substantially lesser degree than inland. Conversion of grazing land to permanent cultivated crops may be a pressure in limited areas where soil and climate conditions may support vineyards or row crops, but water availability is a constraint.

The coast contains about 28,000 acres in the Agriculture land use categories.

2.1 Residential Subdivision Potential and Nuisances

Most of the agricultural land in the Coastal Zone is designated Land Extensive Agriculture with a maximum residential density of 160 acres per dwelling unit and a minimum parcel size of 640 acres, although a few areas are designated Diverse Agriculture with a maximum residential density of 40 acres per unit and a minimum lot size of 160 acres. Although these minimum lot sizes all but eliminated subdivision potential, some existing legal lots of record do not meet the minimums and are recognized through issuance of certificates of compliance. The Agricultural Resources Element establishes policies that maintain parcels in agricultural areas predominantly in sizes large enough to sustain a viable commercial agricultural operation.

While the subdivision potential of agricultural land in the Coastal Zone is very limited, there are a number of parcels that do not meet the minimum parcel size that were legally created by deed prior to the Local Coastal Plan adoption in 1981. Since the County established new Uniform Rules for Agricultural Preserves and Farmland Security Zones in 2013, certificates of compliance would not be issued for substandard parcels on contracted lands where they would result in residential development that is not incidental to agricultural or open space uses.

Complaints about noise, odors, flies, spraying and similar nuisances related to agricultural practices may discourage and sometimes prevent farmers from managing their operations in an efficient and economic manner. Not only will residents complain about aspects of farming operations, but residential areas often directly affect the operations. Clear policy is needed for County decision makers to balance the needs of the farmer with the concerns of residential neighbors and visitors. The Agricultural Resources Element establishes policies that support the needs and practices of agriculture as the highest priority in areas designated for agricultural use.

2.2 Conversion of Agricultural Uses

Recreational and other non-agricultural uses have replaced ranching operations in some coastal areas. Grazing land has been acquired by the California Coastal Conservancy, Sonoma Land Trust, Sonoma County Agricultural Preservation and Open Space District, and State Department of Parks and Recreation. Although these lands have not been subdivided, some park management agencies have taken the land out of agricultural production, reducing the agricultural land base on the Sonoma Coast. In other cases, some park and open space agencies have demonstrated that agricultural production is compatible with recreational use and can be a significant benefit for ecological management and cultural interpretation.

2.3 Agricultural Support Uses

Agricultural support uses include agricultural processing and agricultural services. Agricultural processing is the act of changing an agricultural product from its natural state to a different form including bottling, canning, packaging, and storing agricultural products (e.g., grapes to wine, apples to juice or sauce, etc.). Agricultural services include the maintenance and repair of farm machinery and equipment, veterinary clinics, custom farming services, agricultural waste handling and disposal, and other similar related services. As there is limited agriculture in the Coastal Zone, the need for agricultural support uses is also limited. The determination of which support uses belong on agricultural lands in the Coastal Zone involves their connection to agriculture; potential for conflicts; the size, scale and adaptability of the use; and the amount of land lost to farming. Policies are needed to permit agricultural support uses without adversely affecting production of agricultural products in the area and impacting community character. Policies for agricultural support uses should also balance the need for such uses with the continued preservation of the rural character of the Coast, and should support agricultural products produced on the Sonoma County coast over those produced elsewhere.

2.3.1 Agricultural Visitor-Serving Uses - Agricultural Tourism

While agricultural tourism has not been in high demand on the Sonoma County Coast, it may become so in the future. Tourism is already the major economic driver in the Coastal Zone and agricultural tourism could contribute to supporting the economic success of the agricultural industry on the Coast, provided that agricultural tourism directly promotes the sale of agricultural products grown on-site. However, the economic benefits of agricultural tourism must be balanced against existing constraints such as limited public services, water supply and sensitive resource areas and the potential impacts of increased traffic on public safety. In addition, visitor-serving uses must supplement agricultural production, and not displace it. The benefits and potential adverse impacts of visitor-serving uses vary by agricultural industry. Activities such as special events and tasting rooms that attract large numbers of customers are not considered appropriate in the coastal agricultural areas and are limited to the commercial areas within rural communities.

In the Land Extensive Agricultural areas, some conflicts between visitors and agricultural practices would be less severe due to the larger lot sizes that serve to separate the activities. In these areas, small scale visitor-serving uses that are directly related to the agricultural operation, such as farmstays, hosted rentals, farm stands, farm retail sales and some outdoor recreational uses may be compatible with the agricultural operation.

These small-scale uses promote the agricultural activity and provide a secondary income source for the farmer or rancher without hindering the primary agricultural use of the land. The Agricultural Resources Element includes policies that promote the County's coastal agricultural industry by allowing limited visitor-serving uses that are directly related to agricultural production in the Coastal Zone.

2.4 Farmworker Housing

Efficient management of agricultural production activities requires adequate numbers of employees to be housed on both a seasonal and a permanent basis. Farm related housing issues involve the location, amount and type of housing for seasonal employees, permanent employees and agricultural farm workers and their families. The Agricultural Resources Element establishes policies to allow limited amounts of housing to meet the various needs of farmworkers, farm operators, and family members engaged in the farming operation in addition to permitted residential density on the Sonoma County coast.

2.5 Farmers' Economic Situation

Competition between urban development and agriculture is not a major issue on the Sonoma County coast due to constraints of water supply and existing zoning. However, pressures on agricultural lands can discourage new agricultural investment and uses, raises the price of land making purchase for farming less realistic, and increases the likelihood of purchase for non-agricultural use. This competition creates a need for policies and protections that enable farmers to invest and reinvest in the agricultural production.

2.6 Aquaculture

Aquaculture and the fishing industry produce a food source and have needs similar to land based agricultural operations. Policy is needed to treat the support facilities of the aquaculture and fishing industries that relate to food production or harvesting in the same manner as those for other types of agriculture.

2.7 Impacts of Climate Change

Climate change will impact agriculture on the Sonoma County coast. Agriculture is highly dependent on specific climate conditions, and understanding the overall effect of climate change on agriculture can be difficult. Increases in temperature and carbon dioxide (CO_2) can be beneficial for some crops in some places. But to realize these benefits, nutrient levels, soil moisture, water availability, and other conditions must also be met. Changes in

the frequency and severity of droughts and floods could pose challenges for farmers and ranchers. Changes in temperature, amount of carbon dioxide, and the frequency and intensity of extreme weather could have significant impacts on crop yields.

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

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

3. AGRICULTURAL RESOURCES POLICIES

3.1 Maintain Large Minimum Parcel Sized in Agricultural Lands

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

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

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

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

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

(1) It is consistent with California Coastal Act which requires that (a) the maximum amount of agricultural land shall be maintained in agricultural production, (b) agricultural conversions shall be limited and evaluated on a case-by-case basis, and (c) land divisions outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

(2) It does not diminish the productivity of the agricultural land.

(3) The resulting parcels for agricultural use shall each be of a size that can support a viable agricultural operation per California Coastal Act Section 30241.5.

(4) An open space or agricultural easement shall be applied to the parcels which remain in agricultural use. **(New)**

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

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

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

Policy C-AR-1e: Implement minimum parcel sizes and other zoning standards to promote the productive and wise use of resources, as shown in **Table C-AR-2**. Minimum Parcel Size and Maximum Residential Density by Agricultural Land Use Category. Any land divisions outside of designated Rural Community or Urban Service Area boundaries and not otherwise regulated by the provisions of **Policy C-AR-1a** or Table C-AR-2 shall be permitted only where 50 percent of the useable parcels in the market area of the parcel have been developed and the created parcel would be no smaller than the average size of the surrounding parcels. **(Existing LCP Revised)**

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

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

Notes:

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

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

3.2 Limit Intrusion of Urban Development

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

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

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

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

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

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

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

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

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

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

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

Policy C-AR-3a: The primary use of any parcel designated Land Extensive Agriculture or Diverse Agriculture shall be agricultural production. Residential uses in these areas shall recognize that the primary use of the land in agriculture may create slower traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals. **(Existing LCP Revised – Appendix E, AR-4a)**

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

Policy C-AR-3c: Apply the provisions of the Right to Farm Ordinance (**Appendix C**) to all lands designated Land Extensive Agriculture and Diverse Agriculture. **(Existing LCP Revised)**

3.3 Location and Intensity of Agriculture Related Support Uses

GOAL C-AR-4: **Facilitate agricultural production by allowing related agricultural support uses (agricultural processing and agricultural services), to be conveniently and accessibly located in agricultural production areas when related to the primary agricultural production in the area.**

Objective C-AR-4.1: Facilitate local agricultural production by allowing with a use permit agricultural processing on agricultural lands where appropriate and compatible and consistent with California Coastal Act priorities.

Objective C-AR-4.2: Facilitate local agricultural production by allowing with a use permit on agricultural lands limited agricultural support uses which support local agricultural activities and are not detrimental to the long-term agricultural uses in the area.

Objective C-AR-4.3: Ensure that agricultural support uses allowed on agricultural lands are only allowed when demonstrated to be necessary for, and proportional to, agricultural production on-site.

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

Policy C-AR-4a: Agricultural Resources Element **Table C-AR-3** establishes the agricultural uses allowed and planning permits required on agricultural lands in the Coastal Zone. **(New)**

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

Use	Planning Permits Required	Permit Type
Allowed		
Grazing, Row Crops	Principally Permitted "By-Right"	none required
Vineyard, Orchard	Principally Permitted Coastal Permit[1]	Discretionary
Agricultural Processing (e.g., creamery, winery)	Use Permit Coastal Permit	Discretionary[2]
Agricultural Services (e.g., farm equipment, veterinarian)	Use Permit Coastal Permit	Discretionary[2]
Small-Scale Farm Retail Sales	Coastal Permit	Discretionary
Farm Stand	Principally Permitted "By-Right"	none required
Non Agricultural Uses		
Tasting Rooms	Discretionary, Only allowed in commercial zones	
Other Visitor-Serving Use (e.g., agricultural promotional event, restaurant)	Discretionary, Only allowed in commercial zones	

Notes:
[1] VESCO permit also required from Sonoma County Agricultural Commissioner
[2] May be appealable to California Coastal Commission if within their jurisdiction or appealable area per map on file at Permit Sonoma

Policy C-AR-4b: Storage facilities shall be permitted for agricultural products grown, prepared, or processed on-site. Facilities shall be sized to accommodate but not exceed the agricultural operation, and shall be designed to be compatible with and not adversely impact surrounding land uses. **(Existing LCP Revised – Appendix E, AR-5f)**

Policy C-AR-4c: Only allow agricultural support uses, including agricultural processing and agricultural services uses that clearly support local agricultural production consistent with the specific requirements of each of the two agricultural land use categories. Ensure that such uses are clearly subordinate to on-site agricultural production and do not adversely affect agricultural production in the area. The following criteria shall be used for approval of agricultural processing or service uses:

(1) The use is subordinate to on-site agricultural production based on the following considerations:

  (a) The portion of the site devoted to the agricultural support use in relation to agricultural production.

  (b) The size and number of structures needed for the agricultural support use in relation to agricultural production.

  (c) The relative number of employees devoted to the agricultural support use in comparison to that needed for agricultural production.

  (d) The types of agricultural production on the site in the past and present.

  (e) The potential for the agricultural support use to be converted to non-agricultural uses due to its location and access.

(2) The use will not require the extension of sewer or water.

(3) The use would not convert agricultural lands inconsistent with Coastal Act Sections 30241 and 30242.

(4) The use does not substantially detract from agricultural production on-site.

(5) The use does not create a concentration of commercial uses in the immediate area.

(6) The use is compatible with and does not adversely impact surrounding residential neighborhoods. **(Existing LCP Revised – Appendix E, AR-5d)**

Policy C-AR-4d: Even if related to surrounding agricultural activities local concentrations of agricultural services or agricultural processing (e.g., cheese, wineries), that are detrimental to the primary use of the land for the agricultural production, rural character, traffic, or water resources shall be avoided. **(Existing LCP Revised – Appendix E, AR-5e)**

3.4 Farm Related Housing

GOAL C-AR-5: **Support efficient management of local agricultural production activities by the development of adequate amounts of housing for farmworkers and family members engaged in the farming operation in agricultural areas.**

Objective C-AR-5.1: Encourage farm operators to provide suitable on-site housing for seasonal and agricultural farmworkers and family members engaged in farming operations to maintain agricultural production activities, in accordance with allowable residential density.

The following policies, in addition to those in the Land Use Element and Open Space Element shall be used to achieve this objective:

Policy C-AR-5a: Allow up to four residential units per agricultural parcel, consistent with the maximum residential density, for the purpose of housing family members and agricultural employees. All housing units should be grouped together on the parcel to maximize environmental protections and promote efficient agricultural operations. **(Existing LCP Revised)**

Policy C-AR-5b: Housing for seasonal workers as needed to serve the agricultural industries of the area shall be permitted if it does not necessitate the extension of sewer or water service inconsistent with the Public Facilities and Services Element. This housing may be constructed to the minimum standards acceptable under State law and as allowed under the Public Facilities and Services Element. **(GP2020)**

3.5 Support Agricultures Economic Viability

GOAL C-AR-6: **Support agriculture as the long term viable economic use of land without selling or encumbering the farmland as collateral.**

Objective C-AR-6.1: Continue participation in the Land Conservation Act and Farmland Security Zone programs.

Objective C-AR-6.2: Formulate programs and evaluate alternative funding sources which offer financial incentives to the farm owner to reduce reliance on subdivision and sale of land to raise operating capital.

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

Policy C-AR-6a: Subdivision of any Land Conservation Act contracted lands shall not result in any new parcel less than 10 acres for Prime lands (formerly referred to as Type 1 preserves) or 40 acres for Non-Prime lands (formerly referred to as Type 2 preserves), or the established minimum lot size, whichever is more restrictive. Each proposed new parcel must separately meet the criteria for a new contract. **(Existing LCP Revised – Appendix E, AR-8c)**

Policy C-AR-6b: Encourage and support farms and ranches, both large and small, that are seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil in order to bolster the local food economy, increase the viability of diverse family farms and improve the opportunities for farmworkers. **(GP2020)**

3.6 Aquaculture

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

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

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

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

The following policies, in addition to those in the Open Space and Resource Conservation Element and Public Access Element, shall be used to achieve these objectives:

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

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

(1) The use is subordinate to on-site aquaculture and agriculture production based on the following considerations:

   (a) The portion of the site devoted to the support use in relation to production.

   (b) The size and number of structures needed for the support use in relation to production.

   (c) The relative number of employees devoted to the support use in comparison to that needed for production.

   (d) The uses on the site in the past and present.

   (e) The potential for the support use to be converted to non-agricultural uses due to its location and access.

(2) The use would not convert agricultural lands inconsistent with Coastal Act Sections 30241 and 30242.

(3) The use does not substantially detract from agricultural production on-site.

(4) The use does not create a concentration of commercial uses in the immediate area.

(5) The use is compatible with and does not adversely impact surrounding residential neighborhoods. **(New)**

4. IMPLEMENTATION PROGRAMS

4.1 Agricultural Resource Implementation Programs

Program C-AR-1: Consider updating the agricultural zoning districts to reflect the policies of the Agricultural Resources Element.

4.2 Other Initiatives

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

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

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

(1) Prepare a long-term plan for managing grazing lands and use the plan as a basis for grazing leases;

(2) Retain in agricultural production land not needed for public use that is compatible with and protective of the resource values and recreation uses;

(3) Grant long-term grazing leases which are protective of sensitive habitats and include incentives to improve range quality; and

(4) Monitor grazing and improve range management practices in cooperation with ranchers and the Natural Resource Conservation Service. **(Existing LCP Revised)**

Other Initiative C-AR-4: Work with State and County park and open space acquisition and management entities to avoid conversion of agricultural land to incompatible uses, and to address impacts to and protection of agricultural lands. **(New)**

Other Initiative C-AR-5: Work with local Resource Conservation Districts and agricultural associations to encourage and promote sustainable and organic agriculture that uses management practices which conserve energy and protect water and soil, uses organic pesticides, and produces locally grown and processed agricultural products, to help ensure the long-term use and conservation of coastal resources. **(Existing LCP Revised)**

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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
September XX, 2019

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)**

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

PUBLIC ACCESS 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
September XX, 2019

PUBLIC ACCESS ELEMENT

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PUBLIC ACCESS ELEMENT

1. INTRODUCTION

1.1 Purpose

The objective of the Public Access Element is to identify and evaluate existing and potential coastal areas suitable for public and private recreation, and the type and scale of such potential development.

Outdoor recreation in Sonoma County contributes to the tourism economy, enhances the quality of life for residents and visitors, and conserves unique natural and cultural resources. The diverse and relatively unspoiled character of the natural and built environment is a major contributing factor that inspires the public to explore the Sonoma County coast. The coast offers a variety of recreational experiences and facilities (public shoreline access, trails, water trails, parks, campgrounds, golf courses, equestrian facilities, boat launches) including the following:

(1) **Public Shoreline Access** – the public's right to access tidelands to the mean high tide line, defined and established through a Public Access Plan (**Appendix B**).

(2) **Trails** – trails for bicyclists, equestrians, hikers, disabled users, either separate use or multiple-use.

(3) **Recreation Facilities** – public and private parks, campgrounds, golf courses, equestrian facilities, and boat launches.

(4) **Visitor Serving Facilities** – lodging, restaurants, and other commercial services for tourists.

(5) **Water Trails** – routes for small boats along navigable waterways in the Coastal Zone.

1.2 Relationship to Other Elements

The Public Access Element is coordinated with the Land Use, Open Space and Resource Conservation, Agricultural Resources, Circulation & Transit, and Public Facilities and Services Elements. Following are the relationships among these Elements:

(1) The Land Use Element identifies how public access and outdoor recreation facilities will relate to land use types, and provides policies for establishing new park and recreation facilities.

(2) The Open Space and Resource Conservation Element includes design and planning policies addressing Scenic Resources and protection of natural resources that apply to outdoor recreational facility acquisition and development.

(3) The Public Facilities and Services Element include policies that address public services related to outdoor park and recreation facilities.

(4) The Agricultural Resources Element identifies policies that address the protection and enhancement of agriculture that apply to surrounding land uses, including outdoor recreation facilities.

(5) The Circulation & Transit Element identifies transportation policies for accessing recreational facilities as well as bikeways that are critical transportation and recreational features connecting communities and public facilities.

1.3 Scope and Organization

The Public Access Element establishes goals, objectives, and policies to protect and enhance opportunities for the public to visit, access, and recreate in and along the Sonoma County coast. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives," that support inter-agency and community collaboration around public access issues.

The Shoreline Access and Outdoor Recreation sections of previous Local Coastal Plans have been combined into one section because of the extensive overlap in the facilities and processes of providing access to the shoreline and providing access to parks. The Public Access Element is divided into the following sections:

Introduction – purpose, relationship to other elements, and scope and organization of the Element.

Background – general overview of recreation and public access and the legal basis for public access.

Public Access Facilities – background and policy for facility classification, acquisition, planning and development, and management and operation of publicly accessible parks, trails, and recreational facilities.

Recreational Boating Facilities – background and policy for continuation and improvement of existing recreational boating facilities.

Visitor-Serving Facilities – background and policy for expansion of existing and new commercial services for visitors at specific locations.

Appendix B: Public Access Plan – list, description, and recommendations for existing and proposed publicly accessible parks, trails, and recreational facilities.

2. BACKGROUND

2.1 Overview of Recreation & Public Access

Sonoma County's coastline stretches over fifty-five miles, and its Coastal Zone reaches inland over 6 miles. More than one-quarter of the land area on the coast is in government ownership, but not all of that land is open to the public with appropriate facilities. The Sonoma County Regional Parks Department (County Regional Parks) and the State Department of Parks and Recreation (State Parks) own the majority of the developed facilities and undeveloped land along the coastline. Several other public agencies and private organizations own land and provide limited public access.

The Sonoma County coast draws visitors from all areas of the county and state, especially the Sacramento Valley and the San Francisco Bay Area. Tourism studies indicate that visitors to the Sonoma wine country frequently also visit the Sonoma County coast. Sonoma County residents enjoy being able to easily visit the coast.

Sightseeing has traditionally been the most popular activity on the Sonoma County coast. Other popular activities based on the Sonoma Coast's unique land and water edge qualities include walking on the beach, hiking on the coastal bluffs and upland trails, sunbathing, picnicking, fishing, clam digging, kayaking, surfing, diving, bird watching, photography, tidepooling, and painting.

The summer from June through August is the busiest season for coastal parks, and more than one-third of the visitor days occur during this period, which corresponds to the warmer outdoor camping season. Peak use occurs during holiday weekends (Memorial Day, Fourth of July, and Labor Day) and summer weekends. State parks have over four and one-half million visitors, and County Regional Parks exceed one million visitors.

According to 2011-2012 County Park visitor data, the North Coast and South Coast receive 20 and 80 percent of coastal park visitors (about 150,000 and 600,000 visitors) per year, respectively. The most heavily used beaches are almost all located on the South Coast – Doran Beach, Salmon Creek Beach, Wright's Beach, Goat Rock Beach, and Jenner Beach. At peak use times parking areas for these beaches become full, and visitors have to go to other access points to park.

2.1.1 North Coast

The availability of public access to the Coastal Zone from Gualala to Jenner is quite varied. Some large sections of the coastline and upland areas of the Coastal Zone are

open to the public, including Gualala Point Regional Park, Salt Point State Park, Fort Ross Historic State Park, and North Jenner Beach. At other large sections of the coast public access is limited, including in the area of Stewarts Point, Timber Cove, High Cliffs, and The Sea Ranch community.

There are about 40 miles of trail and over 80 parkland public access points and easements on the North Coast. The use levels tend to drop off from Russian Gulch to the north. Jenner, the southernmost area in California where recreational abalone diving is legal, is a significant recreational draw.

The California Coastal Trail on the North Coast is planned to be a continuous trail alignment extending over 40 miles, connecting Mendocino County with the Russian River. Approximately half of the California Coastal Trail alignment is in public ownership and developed, with numerous gaps in the trail alignment, including the gap between Gualala Point Regional Park and Salt Point State Park.

Access to the Russian River between Duncans Mills and the river mouth is limited to certain areas, with the mouth accessible from Jenner and the Goat Rock area. From the Bridgehaven bridge to Duncans Mills river access is limited to small informal turnout areas. One fee public access point is available in Duncans Mills at the private Cassini Ranch Campground.

In 2009, Sonoma Land Trust acquired the Jenner Headlands, adding a total of 5,630 acres of open space to its conservation lands and further enhancing and expanding recreational opportunities in the North Coast region. The Jenner Headlands are located directly north of the community of Jenner and include approximately 2.5 miles of coastline. Sonoma Land Trust has since transferred the property to The Wildlands Conservancy. The Wildlands Conservancy is developing public access facilities which are anticipated to be open in 2017.

Figures C-PA-1a-g show the Public Accessways in SubAreas 1 through 7 (The Sea Ranch North through Duncans Mills) of the Sonoma County coast.

2.1.2 South Coast

The South Coast is very accessible to the public in the Bodega Bay area, although the upland areas of the Coastal Zone are mostly private. There are about 21 miles of trail and over 60 parkland public access points and easements on the South Coast.

The majority of the coastal property from the Russian River to Bodega Head is a part of Sonoma Coast State Park and provides numerous developed and informal access points. The acquisition of the majority of Willow Creek, Wright Hill Ranch, and the Carrington

Ranch will eventually provide extensive public access to the upland areas north of Salmon Creek in the Coastal Zone. Private landholdings in the town of Bodega Bay complicate public access to tidelands in numerous cases, although there are several points at commercial locations where the public can view the tidelands. Public access to the tidelands is available at the County-owned facilities of Spud Point Marina, Westside Park, Bird Walk Coastal Access Trail, and Doran Regional Park. Two public access trails in the Bodega Harbor Subdivision were dedicated to County Regional Parks, and public trails have been developed.

Further south, the Sonoma Land Trust and The Wildlands Conservancy own property adjacent to the Estero Americano and allow very limited access primarily for interpretive hikes and interpretive paddles. The most eastern access point to the Estero Americano is located in Marin County and supports a prescriptive access for canoe/kayak based recreation.

The California Coastal Trail in the South Coast is planned to be a continuous trail alignment over 25 miles long, connecting Marin County with the Russian River, including the Bodega Bay Bike and Pedestrian Trail and the Kortum Trail. More than half of the trail alignment is in public ownership and developed.

Figures C-PA-1h-k show the Public Accessways, Parks, and Trails in SubAreas 8 to 10 of the Sonoma County coast (Pacific View/Willow Creek through Valley Ford).

2.1.3 Public & Private Recreation

Public recreation facilities include developed State and County Regional Parks and beaches; and recent undeveloped parkland acquisitions. Public facilities include beaches, parkland east and west of State Highway 1, and a natural reserve. State and County parklands are almost equally divided between the North Coast (north of the Russian River) and South Coast (south of the Russian River). State and County parklands account for about one-quarter of the land area on the Sonoma County coast, with almost half of the coastline in parks (about 30 miles under State ownership and 3 miles under County ownership).

Private recreation facilities serve a recreation function and are operated by private business for profit, including campgrounds, trailer parks, stables, golf courses, and boat launches. Private facilities comprise about eight miles of coastline and one mile of Russian River frontage, and are important in that they provide a significant portion of the camping on the Sonoma Coast.

2.2 Legal Basis for Public Access

2.2.1 California Constitution

The public's right of access to the tidelands is guaranteed by the California Constitution. This constitutional right was reaffirmed and clarified by the people of California through the passage of Proposition 20 in 1972. Article X, Section 4 of the California Constitution provides:

> "*No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.*"

Known as the public trust lands, all submerged lands and all lands lying beneath inland non-tidal navigable waters are owned by the State of California and are subject to the Common Law Public Trust Doctrine. The public trust is a sovereign public property right held by the State for the benefit of all people. The State Lands Commission has jurisdiction and management authority over these lands, which are to be used for public trust uses such as navigation, fisheries, commerce, public access, water-oriented recreation, open space, and environmental protection.

2.2.2 California Coastal Act

The California Coastal Act of 1976 further defines shoreline access policies and establishes a framework for achieving the goal of providing maximum opportunities of public use and enjoyment of the coast.

The California Coastal Act favors enhancing recreational use. The policies address the priorities of different recreational uses on the coast and the amount, location, and distribution of these uses.

The California Coastal Act was amended in the 1979-80 legislative season by the Bane Bill. The Bane Bill addressed water supply, septic issues, transportation, visual impacts, public access, and the build out of The Sea Ranch development. Several sections relate directly to providing public access within the private development. The Bane Bill establishes certain provisions for public access, including parking, access easements, and trails, at specific locations along the Sonoma County coast. These specific requirements are reflected in **Appendix B**, Public Access Plan. The Bane Bill also includes provides for scenic view easements, which are not identified in **Appendix D**.

Scenic view easements allow for the removal of trees in order to restore and preserve scenic views from Highway 1.

2.2.3 California Coastal Trail Act

The Coastal Trail Act requires that the California Coastal Trail be incorporated into regional transportation plans and appoints the State Coastal Conservancy as the lead agency in coordinating the development of the Coastal Trail in consultation with local jurisdictions.

In 2003, the State Coastal Conservancy published *Completing the California Coastal Trail*, a programmatic planning guide. Most of the Sonoma County coast is identified as needing Coastal Trail improvements.

2.2.4 Other Guiding Policy Documents

In 2007 the State Coastal Conservancy and the California Coastal Commission adopted *Standards and Recommendations for Accessway Location and Development*. This document provides general guidelines for the location, size, and type of coastal access facility to ensure that a consistent approach is used along the California Coast. The standards are intended to be flexible to accommodate the variation in sites and circumstances. The standards address hazards, access easements, privacy, environmentally sensitive areas, construction, location, trails and bikeways, scenic overlooks, hostels, and barrier-free facilities. These standards have been incorporated into the public access policies and have guided access recommendations.

The Caltrans *Deputy Directive DD-64-R1 Complete Streets – Integrating the Transportation System* policy directs Caltrans to maximize bicycle, pedestrian, and transit safety and mobility needs during system and corridor planning, project initiation, scoping, and programming. DD-64 is anticipated to facilitate public access in the Highway 1 corridor and may be critical to providing connectivity between coastal resources and public recreation facilities. In addition, Caltrans is preparing several policy documents that will have a bearing on public access, including the California Bike & Pedestrian Plan, and State Route 1 North: Marin and Sonoma Counties Transportation Concept Report.

Other policy documents pertinent to public access and outdoor recreation include the General Plans for State Park Units, California Outdoor Recreation Plan, Sonoma County General Plan 2020, Sonoma County Bike and Pedestrian Plan, Sonoma County Draft Outdoor Recreation Plan (2003), and Sonoma County Agricultural Preservation & Open Space District's Connecting Communities with the Land Plan. The proposed public access facilities within the Coastal Zone Sonoma County General Plan 2020 contains

Mitigation Measure 4.9-7 and Policy PF-2cc requiring adoption and implementation of the Draft Outdoor Recreation Plan. The proposed public access facilities within the Coastal Zone in the above policy documents have been incorporated into the Public Access Plan. In 2002 the Sonoma Land Trust published the Russian River North Coast Parcel Analysis to identify properties with significant recreational value and provide a strategic approach to land and resource preservation.

Accessibility at public outdoor recreation facilities is addressed by several documents. The State and County both have separate system-wide facility planning documents (*Access to Parks Guidelines*) and County (*Countywide ADA Transition Plan*). The *Federal Access Guidelines for Outdoor Accessibility* and the California Building Code are used by the State and County for facility design.

3. PUBLIC ACCESS FACILITIES

3.1 Facility Classification

3.1.1 Parks and Preserves

State Park System. There are numerous classifications for properties within the State Park system. These classifications include State Parks, State Reserves, State Natural Reserves, State Wilderness Areas, State Recreation Units, State Beaches, and State Historical Units. Most of the State facilities within the Sonoma County Coastal Zone are classified as State Parks. There are three State Marine Reserves (Del Mar Landing, Bodega Bay, and Gerstle Cove) and one State Marine Conservation Area (Russian River) in the Coastal Zone that support scientific research, education, and recreation. State Marine Reserves, State Marine Conservation Areas, and some other forms of marine conservation designations are types of Marine Managed Areas (California Fish and Game Code Section 36602) jointly designated by State Parks and the State Fish & Wildlife Department. For a complete description of the State Park System Classification, see Public Resources Code Sections 5019.50-5019.80; and for a complete description of the State Marine Protected Area Classification, see California Fish and Game Code Sections 2850-2863.

State Parks "*consist of relatively spacious areas of outstanding scenic or natural character, oftentimes also containing significant historical, archaeological, ecological, geological, or other similar values. The purpose of state parks shall be to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of ecological regions of California... Improvements undertaken within state parks shall be for the purpose of making the*

areas available for public enjoyment and education in a manner consistent with the preservation of natural, scenic, cultural, and ecological values for present and future generations." (Public Resources Code Section 5019.53)

State Marine Reserves are a type of State Recreation Unit and State Recreation Area which contain "*ecological, geological, scenic, or cultural resources of significant value…situated seaward of the mean high tide line."* (Public Resources Code Section 5019.56). They are also a type of Marine Protected Area (MPA), *"a named, discrete geographic marine or estuarine area seaward of the high tide line or the mouth of a coastal river, including any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna that has been designated by law, administrative action, or voter initiative to protect or conserve marine life and habitat. MPA classifications include marine life reserves (the equivalent of the state marine reserve classification), state marine parks, which allow recreational fishing and prohibit commercial extraction, and state marine conservation areas, which allow for specified commercial and recreational activities, including fishing for certain species but not others, fishing with certain practices but not others, and kelp harvesting, provided that these activities are consistent with the objectives of the area and the goals and guidelines of this chapter."* (California Fish and Game Code Section 2852 [c])

The Del Mar Landing State Marine Reserve is located on the Sonoma County coast, approximately 3 miles south of Gualala. Established in 2010, the 140-acre marine reserve spans 0.6 miles of shoreline and extends to a depth of 87 feet. The area was designated as a marine reserve due to its value among the local community and serves to protect abalone and finfish and their habitat. Take of all living marine resources is prohibited within the Del Mar Landing State Marine Reserve.

County Regional Open Space Parks and Regional Open Space Preserves. Regional Open Space Parks and Regional Open Space Preserves are resource-based properties that support passive recreation. These facilities are typically hundreds of acres in size and have few developed facilities (e.g. parking lots, trail heads, and restrooms). Passive recreation may include hiking, mountain bike riding, horseback riding, and picnicking. As larger facilities, they also play a greater role in preserving functioning ecosystems.

County Regional Recreation Areas. These park areas serve regional needs with active recreational uses such as swimming, sport fields, tennis, boating, and other active sports. The facilities are more highly developed, such as play areas, turfed meadows, food concessions, vehicular camping facilities, and equestrian facilities such as arenas. Generally, Regional Recreation Areas are more highly developed facilities.

They are typically less than 200 acres in size. River access facilities, while generally smaller in size, are also included in this category. The majority of coastal campground facilities are included in this category.

Community and Neighborhood Parks. Community and Neighborhood Park needs are based on population-acreage ratios and described further through policies in the Public Facilities and Services Element. Most of the population on the Sonoma County coast is served by private active recreation facilities, decreasing the need for public agencies and special districts to provide similar facilities. The population in the Coastal Zone outside planned communities such as The Sea Ranch, Bodega Harbor Subdivision, and other Bodega Bay subdivisions is relatively low, under 950. In some cases, active recreation facilities are provided to the public at public schools adjacent to the Coastal Zone.

3.1.2 Regional Trails

Regional Trails are trails that provide recreation and transportation connections between protected accessible lands, communities, and/or other points of interest. They provide access and opportunities to experience cultural and natural areas, and generally accommodate non-motorized access for pedestrians, bicycles, equestrians, or multi-use. Trails traverse a variety of terrain, ranging from wide paved surfaces on relatively level ground to narrow, steep, and rocky with minimal improvement. Segments of regional trails can be inside and outside the boundaries of public protected land.

California Coastal Trail. Policy makers and coastal managers have long planned for a continuous coastal trail in California. In 1972, Proposition 20 provided that "A hiking, bicycle, and equestrian trail system shall be established along or near the coast" and that "ideally the trail system should be continuous and located near the shoreline." The California Coastal Act of 1976 required local jurisdictions to identify an alignment for the California Coastal Trail in their Local Coastal Programs. In 2001, Senate Bill 908 was passed, which requires the Coastal Conservancy, in consultation with State Parks, the Coastal Commission, and other agencies, to complete the trail. The bill was also added to the Public Resources Code as Sections 31408 and 32409.

Although planning for the trail is a statewide effort, the Coastal Commission recommends that local governments include mechanisms for planning and implementation in their Local Coastal Plan, and that the exact location and alignment will still need to be determined locally through community input and consultation with public agencies responsible for implementation. The Coastal Commission is the body responsible for the final determination of the alignment.

The California Coastal Commission and the State Coastal Conservancy define the California Coastal Trail as follows:

> "*The California Coastal Trail is a continuous interconnected public trail system along the California coastline. It is designed to foster appreciation and stewardship of the scenic and natural resources of the coast and serves to implement aspects of Coastal Act policies promoting non-motorized transportation. The Trail system is to be located on a variety of terrains, including the beach, bluff edge, hillsides providing scenic vantage points, and within the highway right-of-way. It may take many forms, including informal footpaths, paved sidewalks, and separated bicycle paths. When no other alternative exists, it sometimes connects along the shoulder of the road. While primarily for pedestrians, the Trail also accommodates a variety of additional user groups, such as bicyclists, wheelchair users, equestrians, and others as opportunities allow. The CCT consists of one or more parallel alignments.*"

The California Coastal Commission has identified the following goals and objectives for the Coastal Trail:

(1) Provide a continuous walking and hiking trail as close to the ocean as possible;

(2) Provide maximum access for a variety of non-motorized uses by utilizing parallel trail segments where feasible;

(3) Maximize connections to existing and proposed local trail systems;

(4) Ensure that the trail has connections to trailheads, parking areas, transit stops, inland trail segments, etc. at reasonable intervals;

(5) Maximize ocean views and scenic coastal vistas; and,

(6) Provide an educational experience where feasible through interpretive programs, kiosks, and other facilities

Figures C-PA-1a-k show the Existing, Planned, and Future alignments of the California Coastal Trail System in the nine SubAreas. Existing means the trail has been constructed. Planned means the approximate location of the trail alignment has been identified as described in the Public Access Plan (**Appendix B**). Future means the alignment between two end points is unknown. In some cases, where the alignment of the Coastal Trail segments has not been identified, the beginning and end points of the trail are shown and the future alignment is illustrated along State Highway 1, although alternative alignments should be considered. The intent of the Local Coastal Plan is to provide a continuous braided trail system that contains parallel routes and point access to accommodate a wide range of users.

Update of Figures C-PA-1a-k of the Public Access Element and the Public Access Plan (**Appendix B**) after dedication of new public and private access facilities shall be accomplished through technical corrections to the Public Access Element and Plan.

Bodega Bay Bicycle and Pedestrian Trail. The 1981 Local Coastal Plan recommended improvements through the town of Bodega Bay to safely accommodate bicyclists and pedestrians, based on community concerns about the inability to walk to various locations in town, particularly as tourism increased. In 2002 the Bodega Bay Bicycle and Pedestrian Trail Advisory Committee was formed comprised of various State and County agencies. After community and Advisory Committee meetings, in 2005 the Sonoma County Transit Agency issued the *Bodega Bay Bicycle and Pedestrian Trails Study, Feasibility Study, and Conceptual Plan*.

The primary objective of the Plan is to find the best route for a separate paved trail to accommodate bicyclists and pedestrians traveling to and through central Bodega Bay. The preferred routes consist of a number of interconnecting trail segments of various types which combined provide alternative routes through central Bodega Bay from the community of Salmon Creek south to the Bodega Harbor subdivision. In 2010 most of the preferred routes were adopted in the County General Plan as part of the update of the County Bikeways Plan. Some of the adopted segments are designated as part of the California Coastal Trail in the Public Access Plan (**Appendix B**).

Waterway Trails. Public access to navigable waterways is protected by the State and Public Trust Doctrine. Navigable waterways support recreational use, are classified as waterway trails, and provide boating and canoeing activities. Support facilities may include designated launch sites, restrooms, parking, and signage. Navigable waterways within the Coastal Zone include all of or portions of the Russian River, Gualala River, Salmon Creek, Bodega Harbor, and Estero Americano.

Other Trails. The *Draft Sonoma County Outdoor Recreation Plan* contains recommendations for other regional trails, some of which are only partially in the Coastal Zone. These recommendations have been incorporated into the Public Access Plan (**Appendix B**).

3.1.3 Coastal Access Trails

Coastal Access Trails, also called vertical accessways, are trails that provide access to the shoreline from roads or other trails. They allow pedestrians, and sometimes equestrians and bicyclists to reach the shoreline. They may have staircases, steps, switchbacks, retaining walls, or other structures to provide safe access.

3.1.4 Bikeways

Bikeways serve both transportation and recreation functions. Bikeways in the Coastal Zone are classified into three classes as defined below. All Class 1 Bikeways in the Coastal Zone included in the *2010 Sonoma County Bikeways Plan* have been incorporated into the Public Access Plan (**Appendix B**). Because Class II and III Bikeways emphasize transportation values, they are described and mapped in the Circulation and Transit Element of the Local Coastal Plan.

Class I Bikeways. Class I Bikeways are also known as multi-use paths. They provide bicycle travel on an all-weather surface within a right-of-way that is for exclusive use by pedestrians and bicyclists. Class I bikeway surfaces must be compliant with provisions of the Americans with Disabilities Act (ADA). These bikeways are intended to provide superior safety, connectivity, and recreational opportunities as compared to facilities that share right-of-way with motor vehicles.

Class II Bikeways. Class II Bikeways are often referred to as bike lanes, and provide a striped and stenciled lane for one-way travel on either side of a street or highway. Unlike Class III Bikeways, Class II Bikeways have to meet specific width and geometric standards.

Class III Bikeways. Class III Bikeways share travel lanes with motor vehicles and are intended to provide continuity to the County bicycle network. They are established along through routes not served by or to connect discontinuous segments of Class I or II Bikeways.

3.2 Facility Acquisition

3.2.1 Methods

Acquiring public access facilities can be accomplished in several ways including fee title purchase, requiring fee or easement dedication as a permit condition, establishing prescriptive rights, donation, and cooperative agreements.

Purchase. Public access can be acquired through fee title purchase or purchase of an access easement. State Parks, Sonoma County Regional Parks, and the Sonoma County Agricultural Preservation and Open Space District (Open Space District) regularly apply for and receive grant funding for property acquisition from numerous sources. Sources of funds can be federal, state, and local agencies, private foundations and non-profit organizations, or a combination. Some agencies which administer acquisition funds that include access as a component are the California Coastal Conservancy (Coastal Conservancy), State Parks, National Parks, National Oceanic and Atmospheric Agency

(NOAA), Wildlife Conservation Board, and the Open Space District. Acquisition may also be accomplished by private organizations such as the Sonoma Land Trust before being deeded to a public agency for development, operations, and maintenance.

Dedication. In order to fulfill the access provisions of the California Coastal Act, the County requires that public access be provided or enhanced as part of new development. When a permit is requested on property with a designated access facility in the general area as described in the Public Access Plan (**Appendix B**), access dedication would be required as a condition of the permit.

The Coastal Act requires for all new development, specifically between the first public road and the ocean shoreline (i.e., west of the first public road), granting of lateral and/or vertical easements to allow for public access along and to the shoreline, coastal bluffs, and other coastal resources.

> ***Section 30212(a).*** *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with the public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

Development projects must be sited and designed to either avoid or mitigate all impacts to the public's ability to reach and use tidelands, the shoreline, coastal bluffs, and other coastal resources and facilitate public access to these areas. Where the coastal bluffs exceed five feet, all beach seaward of the base of the bluff shall be dedicated. Where coastal bluffs are less than five feet, the area to be dedicated shall be determined by the County. In no case shall the dedicated easement be required to be closer than 10 feet to an existing or proposed residential structure. In addition, all fences, no trespassing signs, and other obstructions that may limit public lateral access shall be removed as a condition of development approval.

The Coastal Act does not specifically require granting of public access for all new development east of the first public road. However, Coastal Act Sections 30212 and 30604(c) imply public access is required for such development where such development may impede access to any body of water within the Coastal Zone. Section 30212 not only states that public access shall be provided from the nearest public roadway to the ocean, but also between the nearest public road and "the shoreline of any body of water located within the coastal zone", which includes the Russian River and other perennial streams. Therefore, the Coastal Act requires for all new development between

the first public road and any body of water within the Coastal Zone, granting of easements to allow for public access to the shoreline, coastal bluffs, Russian River and other perennial streams, and other coastal resources.

> *Section 30604(c). Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that such development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200).*

Offers to Dedicate. Beginning in 1981, the County has required conditions of approval on Coastal Permits for irrevocable Offers to Dedicate an access easement. Offers to Dedicate are required for future sites when there is no plan to immediately develop access easements for public use. Offers to Dedicate will be evaluated for development at some future time as opportunities arise to link the easements with other public land and trails nearby.

The Coastal Commission's required procedures for Dedication of Access Easements are in California Code of Regulations Title 14, Division 5.5, Section 13574 (Procedures for Open Space Easements and Public Access).

Prescriptive Rights. Section 30211 of the California Coastal Act requires the California Coastal Commission to protect public access when acquired by use. The public may acquire a prescriptive right to use property either by permission of the owner or by using the property without permission. A right of access through use is essentially an easement over real property which comes into being without the explicit consent of the owner. Acquiring such an easement by the public is referred to as an implied dedication or public prescriptive easement. In California, the use must continue for five years before an easement comes into being. If the use meets certain legal criteria, then the historically used area must be kept open for public use in perpetuity.

For the public to obtain an easement by way of implied dedication, it must be shown that the public has used the land for the prescriptive period of five years as if it were public land: 1) without asking for or receiving permission from the owner, 2) with the actual or presumed knowledge of the owner, and 3) without significant objection or bona-fide attempts by the owner to prevent or halt such use.

Prescriptive easements can be established through litigation or Coastal Permit conditions, although proving implied dedication through litigation is a very complex procedure. Prescriptive litigation can be initiated by a public agency or a member of the public.

According to California Coastal Act Section 30211, a permit cannot be issued that might interfere with prescriptive rights. The Public Access Plan (**Appendix B**) identifies access points which may be prescriptive, although research has not been conducted to corroborate this information. The Public Access Plan was developed without prejudice to the existence or absence of prescriptive rights. There may be additional access points that are prescriptive that are not listed in the Public Access Plan.

In addition to the Coastal Act provisions, the Public Trust Doctrine also protects public prescriptive access to navigable waterways within the Coastal Zone.

3.2.2 Acquisition Priority

All proposed accessways in the Public Access Plan (**Appendix B**) have been designated from the highest to lowest priority for acquisition as Acquisition Priority I, II, or III. Acquisition criteria include public safety, quality of destination, bluff stability, distance from other access points, public prescriptive rights, public need, environmental suitability, compatibility with agricultural and residential uses, and ease of development and operation. Some of these criteria conflict; the acquisition priority designations reflect a balancing of all these criteria.

GOAL C-PA-1: **Maximize public access to and along the Sonoma County coast. Minimize adverse impacts from public access to cultural resources, public safety, public health and the environment; and minimize adverse impacts from development on public access.**

Objective C-PA-1.1: Acquire public access to and along the Sonoma County coast through dedication of land, easements, or rights-of-way; fee purchase, or donation.

Objective C-PA-1.2: Acquire public accessways in a distributed network throughout the Sonoma County coast so as not to overburden any one area.

Objective C-PA-1.3: Acquire private accessways through easements and develop them into public accessways.

Objective C-PA-1.4: Prioritize acquiring specific public access facilities within the Sonoma County Coastal Zone.

The following policies shall be used to achieve these objectives:

Land Acquisition Priorities

Policy C-PA-1a: Implement the Public Access Plan as the set of primary policies for acquisition of public access on the Sonoma County coast. **(Existing LCP Revised)**

Policy C-PA-1b: Implement the Acquisition Priorities for the Public Access Plan as follows:

(1) ***Acquisition Priority I*:** Begin or continue efforts to acquire through purchase, permit requirements, donation, or other negotiations as necessary to implement the Public Access Plan.

(2) ***Acquisition Priority II*:** Require an offer of dedication or dedication of an easement as a condition of any Coastal Permit.

When all available Priority I properties have been acquired, take positive steps toward acquiring Priority II properties. If a time sensitive Priority II property is available, consider pursuing it before all Priority I properties have been acquired.

(3) ***Acquisition Priority III*:** Require an offer of dedication or dedication of an easement as a condition of any Coastal Permit. Offers of dedication for some Priority III properties may never be exercised because adequate access is provided by private owners, there is inadequate funding, or it is determined to not be in the public's interest to open access.

When all available Priority I and II properties have been acquired, take steps toward acquiring Priority III properties. If a time sensitive Priority III property is available, consider pursuing it before all Priority I and II properties have been acquired. **(Existing LCP Revised)**

Policy C-PA-1c: Encourage acquisition and development of additional access trails that integrate with the Coastal Trail System where feasible. In the event that an opportunity arises for acquisition of property that is not identified in the Public Access Plan, the agency proposing the acquisition shall conduct an analysis covering the following points:

(1) The relationship of the unforeseen opportunity to the recreational opportunities identified in the Public Access Plan, including analysis of how the unforeseen acquisition would meet those needs compared to facilities identified in the Plan; and

(2) An analysis of the opportunity costs of the acquisition, including whether the proposed acquisition is intended to replace or supplement a facility identified in the Public Access Plan. This analysis may consider how the unforeseen opportunity may impact the acquisition of facilities identified in the Plan. **(New)**

Development Review

Policy C-PA-1d: Require dedication of a public access easement, right of way, or fee title as a Condition of Approval for a Coastal Permit for new development requested on property along the alignment of the California Coastal Trail or containing a planned access facility described in the Public Access Plan, for new development located

between the first public road and the shoreline (i.e., west of the first public road); and for any new development located east of the first public road. The dedication shall be reviewed and approved by the Sonoma County Regional Parks Department as sufficient to support the planned public access facility. The dedication shall be granted to the County of Sonoma or a State agency. **(Existing LCP Revised)**

Policy C-PA-1e: Protect areas where public prescriptive rights to the coast may exist by identifying all known routes historically used by the public in the project area when processing Coastal Permits or where public prescriptive rights to the coast appear to be threatened. Work with the California Coastal Commission to ensure that any access rights that the public may have acquired are preserved.

To approve either a permit or Coastal Permits for private development on lands that may have public prescriptive rights to the coast or where these rights appear to be threatened, the following actions must be taken:

(1) A finding made that the project would not interfere with public prescriptive rights to the coast.

(2) Formalization of the public prescriptive rights to the coast, which may involve development of new or expanded improvements.

(3) Dedication of an access easement or fee title as a condition of project approval.

Provide appropriate assistance with State or private legal action to acquire access easements to access corridors for which prescriptive rights to the Sonoma County coast may exist. **(Existing LCP Revised)**

Policy C-PA-1f: Use the California Coastal Commission's *Standards and Recommendations for Accessway Location and Development* (2007) or successor document in siting and locating new or expanded public accessways and other recreation facilities. **(New)**

Determining Access and Recreation Needs

Policy C-PA-1g: Use the Public Access Plan as the guide for determination of undeveloped (passive) park needs in the Coastal Zone, including County Regional Open Space Parks, Regional Trails, and State Parks in order to support coastal recreation. **(New)**

Policy C-PA-1h: Use the following standards for determination of developed (active) park needs: 5 acres of Community Parks, Neighborhood Parks, and Regional Recreation Areas per 1,000 residents in the Coastal Zone. Developed park acreage within private residential areas shall count towards meeting the acreage standard. **(New)**

Maintaining and Managing Public Access

Policy C-PA-1i: Sonoma County shall either accept or assist in finding another public agency to accept Offers of Dedication which increase opportunities for public access to the coast consistent with the County's ability to assume liability and maintenance costs. **(New)**

Policy PA-1j: Encourage owners of fee and non-fee private accessways which provide access to the public to continue to provide access to the public. If a landowner closes an access point to the public, measures to maintain the maximum amount of public access shall be assessed and feasible measures to maintain equivalent access implemented, including but not limited to negotiating an easement. Closures of public access must be consistent with **Policy C-PA-5e**. **(New)**

Policy C-PA-1k: All Offers to Dedicate easements for public access shall be subject to the procedures in the California Code of Regulations Title 14, Division 5.5, Section 13574 (Procedures for Open Space Easements and Public Access Documents). **(New)**

Policy C-PA-1l: A lateral accessway shall extend from the mean high tide line landward to a defined line, such as the intersection of the sand with the toe of a revetment, vertical face of a seawall, toe of a bluff, or other feature. **(New)**

GOAL C-PA-2:	**Create a continuous braided California Coastal Trail system of walking, hiking, and cycling access routes and trailhead connections that maximizes coastal access, ocean views, and educational opportunities while minimizing adverse environmental impacts.**
Objective C-PA-2.3:	Identify, prioritize, and develop California Coastal Trail sections as described in the Public Access Plan.
Objective C-PA-2.4:	Provide a safe, continuous walking and hiking trail as close to the ocean as possible.
Objective C-PA-2.5:	Provide maximum access to the California Coastal Trail for a variety of non-motorized uses by using alternative trail segments where feasible.
Objective C-PA-2.6:	Maximize connections to existing and proposed regional and local trail systems.
Objective C-PA-2.7:	Ensure the California Coastal Trail has connections to trailheads, parking areas, interpretive kiosks, and inland trail segments at reasonable intervals.
Objective C-PA-2.8:	Maximize ocean views and scenic coastal vistas from the California Coastal Trail where possible.

Objective C-PA-2.9: Provide an educational experience through interpretive facilities where feasible.

The following policies shall be used to achieve these objectives:

Trail Location and Alignment

Policy C-PA-2a: Provide a safe, continuous walking and hiking trail as close to the ocean as possible. Where it is not feasible to locate the trail along the shoreline due to natural landforms or legally authorized development that prevents passage at all times, inland bypass trail segments located as close to the shoreline as possible should be used. Shoreline trail segments that may not be passable at all times, or that are not passable by bicycles, should be augmented by inland alternative routes that are passable and safe for pedestrians and bicycles. **(New)**

Policy C-PA-2b: Where gaps in a continuous alignment are identified, employ interim trail alignments to ensure continuity of the California Coastal Trail. Interim segments should be noted as such, with provisions that as opportunities arise, the trail shall be realigned to its optimum location. Interim segments should meet as many of the California Coastal Trail objectives and standards as possible. **(New)**

Policy C-PA-2c: Avoid locating the California Coastal Trail along or on roads with motorized traffic where feasible. In locations where it is not possible to avoid siting the trail along or on a roadway, the trail should be located off of the pavement, and separated from traffic by a safe distance or by physical barriers that do not obstruct, or detract from, the scenic views and visual character of their surroundings. In locations where the trail must cross a roadway, safe under- or over-crossings or other alternative at-grade crossings should be considered in connection with appropriate directional and traffic warning signage. **(New)**

Policy C-PA-2d: The California Coastal Trail should use existing oceanfront trails and recreational support facilities to the maximum extent feasible. **(New)**

Trail Design and Construction

Policy C-PA-2e: Provide adequate parking and trailhead facilities for the California Coastal Trail. Consider public safety concerns and use patterns including the proximity of other nearby parking and trailhead facilities when determining locations. (New)

Policy C-PA-2f: Provide low cost overnight facilities at periodic intervals along the California Coastal Trail corridor to support long term hiking and cycling excursions. **(New)**

Policy C-PA-2g: The Coastal Trail should be designed and located to minimize impacts to environmentally sensitive habitat areas to the maximum extent feasible. Where necessary to prevent disturbance to sensitive species, sections of the trail may be closed on a seasonal basis. Alternative trail segments shall be provided where feasible. For situations where impact avoidance is not feasible, appropriate mitigation measures should be incorporated, including but not limited to, use of boardwalks, reducing trail width and protective fencing. **(New)**

Policy C-PA-2h: The Coastal Trail should be designed to maximize compatibility with agricultural lands and uses. **(New)**

Policy C-PA-2i: Require construction of California Coastal Trail segments as conditions of approval for coastal development along the alignment involving other new or major replacement infrastructure, such as realignment of Highway 1. **(New)**

3.3 Facility Planning and Development

3.3.1 Public Access Plan

The Public Access Plan in **Appendix B** encompasses recommendations from the previous Local Coastal Plan; and State Parks and County Regional Parks General Plans, Master Plans, and Management Plans; and has been supplemented with agency and public input. State Parks and County Regional Parks are required to prepare General Plans or Master Plans for facility development. Other public and private resource lands sometimes have Management Plans containing a public access component. While facility Master Plans are beyond the scope of the Local Coastal Plan, the policies included in the Public Access Plan establish a framework for facility planning on the Sonoma County coast by the appropriate State and County agencies, as well as a framework for private recreational facility providers. This framework recommends areas for a particular type and scale of potential recreational development consistent with the mandates of the California Coastal Act. Some of the State General Plans and County Master Plans need updating due to expansions, changed conditions, and new regulations. The General Plan for the Sonoma Coast State Park was most recently updated in 2007, but many other plans date back to the 1970s and 1980s.

Many standards and policies inform the Public Access Plan, including those in the Local Coastal Plan and General Plan policies for equitable distribution of recreational facilities. Site planning standards include those associated with any publicly accessible facility, such as state and federal disabled accessibility regulations, building codes, fire codes, traffic and safety codes, and environmental regulations. Public Access Plans are based on local and regional needs. Because of the exceptional quality and significance of its

natural resources on a local, state, and national level, the Coastal Zone contains a greater proportion of the resource-based recreational facilities and opportunities than found in other areas of Sonoma County. Therefore, the equitable distribution of recreational opportunities and facilities along and between the North and South Coasts is a goal for State Parks and County Regional Parks reflected in the Public Access Plan. The equitable distribution of recreational facilities is influenced less by resident population densities and more by providing the entire County population with a range of recreational experiences without overly impacting any one access area too much.

State Facilities. The proposed improvements and programs for State facilities identified in the Public Access Plan are driven by a series of California Department of Parks and Recreation programs and planning documents. Criteria for access improvements, along with the involvement of natural and cultural resources, are provided through Division 5 of the State of California Public Resources Code and the California Department of Parks and Recreation's Operations Manual. Recommendations for access improvements to meet accessibility guidelines are mandated through the Consent Decree from *Tucker v. The State of California Department of Parks and Recreation*. Proposals for specific State facilities are identified based on the need to provide safe and quality public access to facilities and protect park resources.

The California Department of Parks and Recreation has determined the General Plans for Salt Point State Park (1976) and Fort Ross State Historic Park (1975) need to be updated. The proposed improvements and programs for these two Parks in the Public Access Plan are based on this determination. The California Coastal Trail Project and Mitigated Negative Declaration (2011) are the source of proposed improvements and programs related to the California Coastal Trail and associated facilities in the Public Access Plan.

Proposals identified for Sonoma Coast State Park are an outgrowth of guidance provided in the Sonoma Coast State Park General Plan (2004). Proposals associated with the Carrington Property are contained in the Carrington Property Immediate Public Use Facilities Plan (2008, rev. 2010) and subsequent Mitigated Negative Declaration (2010).

The proposed improvements for County Regional Parks facilities identified in the Public Access Plan were based on the considerations and standards described below under Planning and Development Considerations.

3.3.2 Planning and Development Considerations

Need and Demand. The need for public access facilities in the Coastal Zone depends on the facility classification. The need for facilities that support active recreation are determined by the applicable acreage per capita standard. Because the residential population within the Coastal Zone is small, and the acreage requirements for active recreation are adequate. The facility needs for passive recreation, coastal access, and accessible resource areas is determined by the Public Access Plan and the qualitative policies in this Element. The need for these facilities is influenced by the demand from local and regional visitors, as well as ecological and scenic considerations.

At times the demand for recreational facilities, particularly campsites, exceeds the supply on the Sonoma County coast. The Local Coastal Plan recommends a level of overnight accommodations, including camping, that is within State Highway 1 capacity constraints and is consistent with protecting coastal resources and providing a quality coastal experience.

Facility Improvements. Each facility will have an adopted long-range plan or Master Plan that identifies and describes the location of the various improvements. Necessary facilities at a particular site depend on the expected use and the availability of facilities nearby. Because the level of use is expected to increase over time, facilities may be developed in several phases with new or expanded facilities added as needed. Among the facilities needed for public access and outdoor recreation destinations are: safe trails, restrooms, parking areas, trash receptacles, and signs.

Quality of Destination. The desirability and capacity of coastal destinations are important considerations in locating public access points. Areas with few attractions and limited space may not justify the cost of development and operation. However, as the population expands and overuse impacts the existing destinations, the importance of every potential public access point increases.

Impacts on Environment. The environmental carrying capacity, protection of wildlife habitat, protection of views, and the psychological and social capacity of recreational lands are important factors to consider in planning and developing recreational facilities. Quantifying and measuring recreational carrying capacity is difficult and each site is unique.

The Local Coastal Plan generally supports distributing recreational facilities where compatible with the sensitivity and suitability of an area. Distributing recreational facilities throughout the Sonoma County coast helps prevent overuse and damage to the coastal environment in any one location. Often it is most efficient to utilize existing

park service centers and consolidate significant developed park infrastructure to support the facilities. The existing park service centers are well-situated to serve additional dispersed recreation.

In planning for recreational activities, substantial modifications of the natural environment for a specific activity should be minimized and avoided if possible. The Coastal Act specifies that coastal dependent uses permitted on the coast have priority over non-coastal dependent recreational uses. While oceanfront sites enhance coastal facilities such as hotels, restaurants, and campgrounds, such locations may affect important coastal views from the highway and adjacent recreation areas.

Development of park facilities must also include consideration of water supply and wastewater disposal. As the Sonoma County coast is a water scarce area, all facility planning should include an early evaluation of water supply capability if water is required to support the development.

Peak Use. Peak use issues can be addressed through a variety of approaches. Visitors can be encouraged to use Sonoma County Transit, Mendocino County Transit, and other alternative transportation, reducing the need for new parking areas (see California Coastal Act Section 30252.1). Interpretive materials and programs can be provided to help connect visitors with access points they may not have known about. Lightly used locations such as Short Tail Gulch or Bodega Dunes Beach can be developed near heavily used locations such as Doran Beach or Salmon Creek Beach. A continuous California Coastal Trail that connects multiple access points allows visitors to park wherever parking is available and use the trail to reach their preferred access point. Heavy use at particular access points can be distributed by creating additional trails with coastal views on parkland east of State Highway 1. The Dr. Joseph Trail (Pomo Trail) is a good illustration of a popular trail with coastal views east of the highway. Measures to address use patterns at specific access points are in the Public Access Plan.

Parking. Parking along State Highway 1 is primarily for pursuing outdoor recreation. Parking management influences the capacity of Highway 1 since visitors slow down while searching for parking spaces and the numerous parking lots and turnouts tend to slow traffic. Between Bodega Bay and Jenner, State Highway 1 is adjacent to the Sonoma Coast State Beaches. Roadside parking in this area is heavy and often supported by paved, striped parking lots. North of Jenner Russian Gulch and Vista Trail provide the only off road parking, although there are numerous small turnouts. Further north, Fort Ross State Historic Park, Stillwater Cove Regional Park, and Salt Point State Park provide some off-highway parking for developed park areas only. Gualala Point Regional Park and The Sea Ranch Coastal Access Trails all have off-highway parking.

Parking improvements needed on the Sonoma County coast include developing new and enlarging existing parking facilities to reduce hazardous parallel parking, improving signs and entrances to and exits from parking facilities, and increasing capacity by delineating parking spaces. Parking improvements are most needed in the Sonoma Coast State Park area between Bodega Bay and North Jenner Beach, where traffic levels and demand for parking spaces are greatest. The Public Access Plan recommends parking improvements for various access points.

Residential Conflicts. Access facilities must be designed and managed to minimize conflicts with residential development. The distance between coastal access trails and residences should be as large as possible to protect the quality of the user experience and the privacy of the occupants of the residence.

Liability. Liability is a concern of both public agencies and private property owners regarding public access. State laws do provide some immunity from liability. California Government Code Sections 831.2 and 831.4 provide immunity to public agencies for public recreational use of public lands and recreational trails and roadways, releasing agencies from liability if a person is injured while using the facility. California Civil Code Section 846 grants immunity to private landowners who allow people to use their property for recreational purposes. However, if a fee is collected the private landowner loses this immunity.

Coastal Permit Findings. The County will approve a Coastal Permit for new development if it finds that the development, as described in the application and as conditioned, conforms with the plans, policies, requirements, and standards of the Sonoma County Local Coastal Program.

The California Coastal Act requires that every coastal development permit issued for new development located between the nearest public road and the sea (i.e., west of State Highway 1) or the shoreline of any body of water located within the Coastal Zone include a specific finding that such development is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act. This policy does not apply to types of development not considered new development, as outlined in Coastal Act Section 30212.

If the new development is in conformance with the Public Access Plan of the Local Coastal Plan, this access requirement is met since the Public Access Plan is certified as being in conformance with access requirements of the Coastal Act. If the new development is not in conformance with the Public Access Plan, public access from the nearest public roadway to the shoreline and along the coast (i.e., granting of an

easement to allow vertical access to the mean high tide line or lateral access) shall be provided on the project site with the following exceptions:

(1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources; or

(2) Adequate access exists nearby; or

(3) It would have a significant adverse impact on agriculture as determined by the California Coastal Commission (Coastal Act Section 30212).

Regarding the first exception, there are few locations along the Sonoma County coast for which the Public Access Plan does not include recommendations for new or improved public access due to public safety hazards. In other areas the County requires construction of improvements along with the public access to reduce public safety hazards to a level of less than significant.

Beach trail routes may pose public safety hazards from inundation during high tides; engulfment by sleeper waves; loss of balance and sweeping out to deep water resulting from ocean backwash, sudden drop-offs at the surf line, or rip currents; and loss of balance and falling from crumbly, unstable bluffs and rock outcroppings. These public safety risks are greater where the beach is relatively narrow and rocky, where the route along the beach may only be safe during a low tide. Where a beach route of the California Coastal Trail is unsafe at certain times of the day or year, the County will designate an alternative route for the California Coastal Trail, creating a braided trail.

The County has evaluated most of the potential public access areas for conflicts with agricultural uses, Environmentally Sensitive Habitat Areas, and cultural resources; and eliminated some of these areas from the Public Access Plan due to the inability to mitigate impacts on these resources.

Prior to development of public access further environmental studies are necessary. These studies may show that public access can be developed with adequate mitigation measures which may include siting the access to avoid sensitive resources, constructing boardwalks and stairways over or around sensitive resources, periodically closing areas to allow for revegetation, limiting access to scientific and nature study, or restricting access to certain seasons or times of the year.

However, in cases in which public safety hazards or impacts on sensitive resources cannot be mitigated or when public access is not appropriate, alternative public access should be required for new development, including development of off-site public access points. If off-site public access points are developed as mitigation for the impact

of new development on public access, these access points should be as close as feasible to the location of the impact on public access.

Regarding the second exception, adequate public access has not been defined or quantified, and the availability of access is constrained by many factors, including adjacent land uses; sensitive resources; topography; and the ability of public agencies to develop, operate, and maintain public access. County staff assigned to the new development project, in consultation with State Parks or County Regional Parks, would determine if any nearby public access is adequate based on knowledge of the issues associated with access, characteristics of the existing access, experience with other Coastal Permits, performance standards for adequate access, and any applicable County and California Coastal Commission policy. Sonoma County Regional Parks performance standards for adequate public access take into account the current and projected demand, state of the economy, adequacy of existing parking, extent of coastline involved, need and policy for a continuous California Coastal Trail, and adequacy of existing facilities for the disabled.

Regarding the third exception, a public accessway should not be sited on land used for agriculture unless adequate protection of the agricultural uses is provided. The Coastal Commission would determine if the potential adverse impacts on agriculture from public access for the new development would be significant. If significant, mitigation measures are available to reduce the impacts to a less than significant level, including restricting access to certain seasons or times of the year, locating access along fences and property lines, establishing a natural or artificial physical separation between the agricultural activities and access area, and locating the public access on another site or property.

GOAL C-PA-3:	**Maximize public access to and along the Sonoma County coast. Minimize adverse impacts from public access on people and the environment; and minimize adverse impacts from development on public access. (New)**
Objective C-PA-3.1:	Maintain and enhance public access to and along the Sonoma County coast.
Objective C-PA-3.2:	Provide adequate facilities at public accessways.
Objective C-PA-3.3:	Develop and maintain public accessways so as to protect public health and safety, protect sensitive visual and natural resources, and prevent adverse impacts on adjacent properties.
Objective PA-3.4:	Ensure that development does not adversely affect existing and potential public accessways.
Objective PA-3.5:	Prioritize development of specific public accessways.

Objective PA-3.6: Provide enough camping to meet the latent demand, and to provide a range of camping experiences.

The following policies shall be used to achieve these objectives:

Public Access Development Priorities

Policy C-PA-3a: Implement the Public Access Plan as the set of primary policies for development of public access on the Sonoma County coast. **(Existing LCP Revised)**

Policy C-PA-3b: All proposed public access in the Public Access Plan has been designated from the highest to lowest priority for development as Development Priority I, II, or III. The emphasis for development priority is different than that for acquisition priority. Developing accessways distant from existing developed access points are given higher priority. Public safety and the costs of development and operation are principal concerns.

Implement the Development Priorities for the Public Access Plan as follows:

(1) ***Development Priority I*:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing Priority I public access facilities within their purview;

(2) ***Development Priority II*:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing Priority II public access facilities only when all Priority I public access facilities within their purview have been developed or if funding specific to a site becomes available; or

(3) ***Development Priority III*:** Encourage each agency or entity owning or operating designated public access facilities to prioritize available funds towards developing Priority III public access facilities only when all Priority I and II public access facilities within their purview have been developed. **(Existing LCP Revised)**

Development Review

Policy C-PA-3c: Consider alternative mitigation measures for the impact of new development on public access in cases where development of certain public access facilities or improvements are found to be infeasible due to potentially significant impacts on public safety, agriculture, Environmentally Sensitive Habitat Areas, or cultural resources. Alternative mitigation measures include but are not limited to development of off-site public access points of equivalent public access opportunities. If off-site public access points are developed as mitigation for the impact of new development on public access, these access points shall be as close as feasible to the location of the impact on public access. Feasible is defined here as "capable of being

accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." **(New)**

Policy C-PA-3d: Require a Coastal Permit for all new public or private access facilities. **(Existing LCP Revised)**

Policy C-PA-3e: Conduct public hearing~~s~~ for review of the Coastal Permit~~s~~ for an existing coastal access trail if there is evidence of degradation of resource~~s~~ in the area of the facility or significant public interest in the facility. Any proposal to reduce or close an existing public coastal access point or trail as a result of such review shall be reviewed by the California Coastal Commission. **(Existing LCP Revised)**

Policy C-PA-3f: Use the *California Coastal Commission's Standards and Recommendations for Accessway Location and Development (2007)* or successor document in designing and constructing new or expanded public access facilities and other recreation facilities where appropriate. **(Existing LCP Revised)**

Policy C-PA-3g: Conduct visual analysis prior to siting parking areas for accessways. **(Existing LCP Revised)**

Policy C-PA-3h: Encourage a range of accommodations in parks, including the provision of low cost accommodations where appropriate, including tent or small vehicle campgrounds, hike-in and primitive campgrounds, and hostel and sleeping cabin facilities. Use existing buildings and structures for these accommodations where feasible. **(Existing LCP Revised)**

Policy C-PA-3i: Locate campgrounds, whenever possible, in areas that have already been disturbed by prior uses and consequently where cultural and biotic resources are typically limited. Campgrounds should be sited in a manner that protects visual resources and consistent with County development standards. Provide separate walk-in, tent, and recreational vehicle camping areas. **(Existing LCP Revised)**

Policy C-PA-3j: Relate intensity of planned public access facilities to available water supply and available septic or sewer capacity. **(Existing LCP Revised)**

Policy C-PA-3k: Allow park residences in areas visible to the public where necessary for security reasons and when impacts on views are mitigated. **(Existing LCP Revised)**

Policy C-PA-3l: Allow extension of sewer service to parklands only where consistent with policies of the Public Facilities and Services Element of this Local Coastal Plan. **(Existing LCP Revised)**

Public Access Facilities

Policy C-PA-3m: Provide safe and clear public access trails. The trail surface could be dirt, gravel, paved, or a stairway. Improvements should be designed to be safe, minimize impacts to sensitive resources, minimize maintenance costs, and provide disabled accessibility to the extent feasible without substantially impacting sensitive resources. **(New)**

Policy C-PA-3n: Provide restrooms at significant recreational areas to protect coastal resources and public health and safety. Consider use patterns and the proximity of other nearby public restrooms when determining facility needs. **(Existing LCP Revised)**

Policy C-PA-3o: Provide trash and recycling receptacles and their servicing at all major public access facilities. **(New)**

Policy C-PA-3p: Encourage the California Department of Parks and Recreation to install emergency communication facilities at Goat Rock. **(New)**

Policy C-PA-3q: Provide clear directional signs at all public access facilities to indicate the location of trail heads and public parking. If the trail begins on State Highway 1, only one directional sign on the highway is necessary. Signs shall be compatible with surrounding views and visual resources, consistent with County Visual Resource Assessment Guidelines. If the trail begins off the highway, there should be a directional sign on State Highway 1 and other directional signs to the trail head. **(New)**

Policy C-PA-3r: At trailheads provide information about regulations, contacts in case of an emergency, natural resources, the potential for fires, and the need for user cooperation. **(New)**

Policy C-PA-3s: Provide bicycle racks or locked bicycle storage areas at State and County Regional Parks, beaches, and other developed parklands. **(Existing LCP Revised)**

GOAL C-PA-4: **Establish a parking system with adequate parking facilities for parkland visitors throughout the Sonoma County coast, with minimal impacts on views, public safety, and natural resources.**

Objective C-PA-4.1: Ensure that adequate parking facilities are provided for each new or expanded public access facility.

Objective C-PA-4.2: Identify, prioritize, and implement parking improvements at parklands.

The following policies, in addition to policies in the Circulation and Transit Element, shall be used to achieve these objectives:

Locating and Developing Parking Improvements

Policy C-PA-4a: Encourage new parking facilities in conjunction with development of new public access facilities. Parking may be developed in phases as use levels increase. At public access facilities, provide the maximum parking capacity that does not reduce public safety or significantly impact the environment. **(New)**

Policy C-PA-4b: Locate parking areas to directly connect with trails if possible. In locating new, large parking lots, consider the landward (east) side of State Highway 1 to reduce impacts to ocean views if safe trail crossings of the highway can be provided. **(New)**

Policy C-PA-4c: When feasible locate parking in areas screened from public view. **(Existing LCP Revised)**

Facilitate Access for All

Policy C-PA-4d: Maintain and provide free parking, subject to reasonable restrictions, at all public access points on the coast which do not contain special facilities in excess of restrooms, parking, gated access, trash enclosures, informational kiosks, and other minor amenities. If user fees are implemented for any coastal park areas, encourage discounts to County residents. **(New GP2020 Revised)**

Temporary Events on Public Beaches

Policy C-PA-4e: Until completion of **Program C-PA-3** continue to apply zoning permit standards for temporary private events on public beaches that do not involve structures or other coastal development. **(New)**

3.4 Recreation Facility Management and Operation

Public outdoor recreation facilities must be managed. An agency or organization must be willing to accept responsibility for maintaining and operating the facility before it is opened to the public. Three types of operators may manage outdoor recreation facilities: public agencies, organizations, and private individuals. Appropriate public agencies include State Parks, County Regional Parks, and California Department of Fish and Wildlife. The County would give preference to public agencies for accepting and operating facilities. If it is not feasible for a public agency to accept a particular facility, an organization may do so after a public hearing has been conducted.

In some cases, the managing entity is different than the property owner. For example, State Parks has an agreement with County Regional Parks to operate several parcels adjacent to Stillwater Cove Regional Park on the north. This is because these parcels are close to the County Park facility. Other possibilities are public ownership of a facility which is leased back to a private party for operation, and ownership and operation of a public access facility by a private owner such as a business or non-profit group.

Park operations include opening and closing gates, visitor centers, restrooms, patrolling and responding to emergencies, servicing the trash and recycling receptacles, collection of authorized fees, and staffing campgrounds.

3.4.1 Allowable Activities

Allowable activities at coastal access facilities are governed by easement or deed conditions and the general plan or master plan for the specific facility. Allowable uses are often specified and typically in passive use areas, recreational uses allowed within the accessway include activities normally associated with beach use (walking, swimming, jogging, sunbathing, fishing, and nature study) but do not include organized sports activities, campfires, or vehicular access.

3.4.2 Funding

The funding for the operation and maintenance of public park facilities can be difficult for public agencies and private businesses and nonprofits to support during challenging economic times. Because of the numerous access points to existing facilities, temporary closures are often ineffective at preventing access to facilities and can cause additional issues.

3.4.3 Maintenance

Properly maintaining access facilities is essential to protect natural resources and public safety and to prevent adverse impacts on adjacent properties. Coastal Permit conditions and renewals help ensure that maintenance is adequate.

3.4.4 Policing

Policing of recreational facilities is provided by the operating agency or private organization. The two public agencies that police most of the public recreational facilities on the Sonoma County coast are State Parks and County Regional Parks. In addition, the California Highway Patrol, State Department of Fish & Game, and County Sheriff play an important role. Current staffing levels for public agencies and many private organizations is limited.

3.4.5 Private Fee Access

A few landowners charge minimal day use access fees that permit the general public the opportunity to reach the shoreline. By controlling access by fee and location, the property owner can operate trails, parking, and boat launching in a manner that affords minimum interference with other land uses. Unfortunately, several of these access points have been closed. The Public Access Plan encourages owners of fee accessways to continue to provide access to the public. Private fee accessways require a Coastal Permit and can be subject to sanitary, parking, and other conditions similar to those applied to public accessways.

GOAL C-PA-5: **Public access facilities are operated and maintained to protect natural resources and public safety and to prevent adverse impacts on adjacent properties.**

Objective C-PA-5.1: Require that the public access facilities are properly operated and adequately maintained to maximize public access.

The following policies shall be used to achieve these objectives:

Public Access and Recreation Planning

Policy C-PA-5a: California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) environmental analyses on proposed State Parks or County Regional Parks projects shall include estimates of current and future visitor use and analyses of adequacy of the proposed facilities to meet county-wide visitor demand. **(New)**

Policy C-PA-5b: Planning for new, expanded, or improved State Park and County Regional Park facilities shall take into consideration the balance of distribution of facilities between the North Coast and South Coast. **(New)**

Public Access and Recreation Operations and Maintenance

Policy C-PA-5c: When new recreation facilities are proposed, asses proposed staffing plans to ensure adequate staffing for maintenance and security. **(New)**

Policy C-PA-5d: Use Coastal Permit conditions and renewals to ensure that recreation and access facilities are properly maintained to protect natural resources and public safety and to minimize adverse impacts on adjacent properties. **(New)**

Public Access Facility Closures

Policy C-PA-5e: The following guidelines shall be applied to closures of public access facilities:

(1) A beach closure or curfew cannot apply to the area of original jurisdiction of the California Coastal Commission (State tidelands, submerged lands, and public trust lands), including but not necessarily limited to the area seaward of the mean high tide line.

(2) Public access to the water's edge and at least 20 feet inland of the wetted substrate (sand and rocks) of all beaches shall be permitted at all times.

(3) Closure to public use of any portion of the beach inland of the mean high tide line is not encouraged, and would require a coastal development permit, a condition of which must include maintenance of the public's right to gain access to State tidelands.

(4) Measures that limit public use of the beach shall be limited to those necessary to address documented events that could create a risk or hazard to public safety of the environment, and shall be the minimum necessary to address that potential risk or hazard. The need for continuation of measures that provide public safety but that limit public access to the beach shall be reassessed on a periodic basis to assure maximum feasible public access to the beach is provided. (New)

4. RECREATIONAL BOATING POLICY

The 1981 Local Coastal Plan had a separate Harbors chapter. The recreational boating section of that chapter has been incorporated into this Public Access Element. The California Coastal Act of 1976 supports coastal-dependent development stressing protection of recreational boating and necessary support facilities.

While Bodega Harbor is known primarily for its commercial boating, recreational boating is also important at the harbor. Approximately 11,000 boats annually use the launch facilities at Doran County Park and Westside County Park. An additional 350 sailing boats use Bodega Bay as a port of refuge. On a typical summer weekend two to four hundred recreational boats use the facilities at Bodega Bay. The demand for camping facilities, groceries, bait, fuel, mechanical repairs, and berth space in the private marinas is considerable during this time. Since facilities are limited, the needs of the recreational boater must be balanced against those of the commercial boater. Berths for recreational boats have been expanded and limited support facilities have been constructed at Spud Point Marina, which contains 253 total berths, a fuel dock, waste pump-out station, service dock, laundromat, and restrooms with showers. In 2015, commercial boats used roughly 40 percent of the berths, and recreational boats used about 60 percent of the berths. However, during the busier salmon and crab season, commercial boat activity increases at the marina.

The mosquito fleet is a collection of small boats (18 to 30 feet) with commercial licenses at Bodega Bay. Owners range from part-time sport fishermen to serious full-time commercial fishermen. Most of these boats are moored or anchored. While these boats are not strictly recreational, they demand similar support facilities.

Recreational boating outside of Bodega Bay includes vessels used in abalone diving, canoes, small power boats, and sailboats on the Russian River; inflatable rafts and other hand launched vessels; recreational fishing boats launched on the North Coast; and occasional canoes and kayaks on the Estero Americano. Ramp launching facilities on the Sonoma County coast are limited. Hand launching opportunities are numerous but not usually supported by adequate parking, restroom, and shower facilities. Boat rentals are sometimes available on the Russian River and North Coast.

GOAL C-PA-6: **Provide adequate recreational boating facilities at parks, harbors, and marinas on the Sonoma County coast.**

Objective C-PA-6.1: Identify and develop the recreational boating facilities needed at parks, harbors, and marinas.

Objective C-PA-6.2: Develop a sustainable economic approach to support the boating facilities in Bodega Bay.

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

Policy C-PA-6a: Encourage public and private harbor and marina operators to accommodate existing and future demand for recreational and commercial boating facilities. **(New)**

Policy C-PA-6b: Encourage continuing the existing boat rental and launch facilities at the coast and coastal waterways and providing additional facilities that provide new recreational opportunities compatible with natural resources. **(New)**

Policy C-PA-6c: Provide the maximum public access feasible to new boat wharves and piers. **(New)**

Policy C-PA-6d: Encourage the establishment of waterway trails for non-motorized boating to promote environmentally sensitive water based education, recreation, and tourism. Provide information at launch sites for safe and responsible boating. **(New)**

5. IMPLEMENTATION PROGRAMS

5.1 Public Access Programs

Program C-PA-1: Prepare a long-range plan or Master Plan for each State or County Park or Preserve consistent with priorities in the Public Access Element in conjunction with park development planning. **(Existing LCP Revised)**

Program C-PA-2: Encourage the provision of transit, bicycle and pedestrian pathways, and other vehicle use reduction measures to reduce vehicle use to and between public and private access facilities on the coast to reduce the number of vehicles on State Highway 1 and the demand for parking spaces. **(New)**

Program C-PA-3: Consider developing policies for review of applications for temporary private events on a public beach that consider: public or private use; type of associated coastal-dependent activities; displacement of public use; number of people; season, weekday or weekend, and hours; location and area relative to size of beach and public accessways; pedestrian access; transportation and parking; amplified music and other noise; equipment; temporary structures and enclosures; food service; warming fires; signage; admission fee; wastewater and solid waste disposal; and required mitigation measures. **(New)**

Program C-PA-4: Evaluate the feasibility of a Bodega Bay water taxi to connect existing recreational and commercial facilities and reduce automobile congestion. **(New)**

5.2 Other Initiatives

Other Initiative C-PA-1: Encourage partnerships between public agencies and private organizations that maximize the efficiency of operating and maintaining public facilities and preventing public access facility closures. **(New)**

Other Initiative C-PA-2: Work with Regional Parks to evaluate the reuse of Mason's Marina to concentrate the County's marina services and to support other boating related uses. **(New)**

Other Initiative C-PA-3: Encourage the formation of a harbor district at Bodega Bay to improve recreational and commercial boating. The harbor district could facilitate the economic basis for providing improved boating facilities and public outreach. **(New)**

PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

WATER RESOURCES 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
September XX, 2019

WATER RESOURCES ELEMENT

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WATER RESOURCES ELEMENT

1. INTRODUCTION

1.1 Purpose

Water is an essential element of all life forms. Plants and animals are mostly composed of water and need water and the nutrients carried by water. An adequate and high quality water supply is therefore required for continued human survival, development and use of the land, and the health of the entire natural environment.

Due to its critical importance as a legislatively recognized public resource and basic human right, the use and quality of water have long been regulated by government. Since water moves easily across city and county boundaries, regulation typically occurs at the regional, State, and Federal levels. However, since cities and counties have legal authority over development and land use, they are involved in considering the adequacy of water supplies and how development affects the quantity and quality of water available for other beneficial uses.

As development has continued, the long-term adequacy of groundwater and surface water resources has become a major public concern. Water-related issues include lowered groundwater levels, increased stormwater runoff, sediment and pollutants in runoff, water diversions into and out of the Russian River basin, summer rationing in dry years, fish and wildlife water needs, the rates of water use, conservation methods, water storage limitations, the growing re-use of water, and continuing changes in State and Federal regulations. While much is known about groundwater and surface water conditions in Sonoma County's Coastal Zone, addressing these evolving issues will require a continued and iterative process data collection, problem identification, and development of adaptive management strategies.

The primary purpose of this Element, an optional Element to the Sonoma County Local Coastal Plan, is to ensure that coastal water resources are sustained and protected. To achieve this purpose, water resource management should consider the amount of quality water that can be used over the long-term without exceeding the replenishment rates over time or causing long-term declines or degradation in available surface water or groundwater resources. The Water Resources Element establishes goals, objectives, and policies to protect and sustainably manage coastal water resources. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives", that

support public safety and promote inter-agency and community collaboration. Nothing in this Element should be construed to encourage or condone illegal use of water.

1.2 Relationship to Other Elements

The Water Resources Element addresses a range of water related issues in the Sonoma County Coastal Zone. Some other water-related topics are also addressed in other Elements. Water availability as a factor in Land Use Map densities is addressed in the Land Use Element. The Open Space and Resource Conservation Element addresses riparian corridors, wetlands, wildlife protection, tree protection, fishery resources and other biotic resources, soil erosion, forestry, and mineral resources. The Public Access Element addresses water oriented recreation. The Public Facilities and Services Element addresses connections to public water systems. The Public Safety Element addresses flood hazards, fire suppression, and hazardous materials. The Agricultural Resources Element addresses aquaculture.

The Water Resources Element has been developed to be consistent with other Elements. References to policies in other Elements are provided where they support or implement the objectives of the Water Resources Element.

1.3 Scope and Organization

The Water Resources Element is organized as follows. Section 2 reviews the relevant water rights law, the hydrologic system, the major streams and drainage basins, the role of vegetation in the water cycle, and the natural underground water storage in the County. Section 3 states the County's goals, objectives, and policies for each of the six topics.

2. WATER RESOURCES AND REGULATION

2.1 Water Cycle

In Sonoma County, the hydrologic cycle of water is dominated by the frequent inflow of moisture-laden air from over the Pacific Ocean. As the moisture laden air cools, particularly where it is forced higher by steep slopes, the vapor condenses into water that falls as rain or, if the vapor is chilled enough, it forms solid ice crystals and falls as snow. Most of the rain and snowmelt runs off into surface water bodies that drain back to the sea. Some of the precipitation is absorbed into the Earth and becomes groundwater, some of which moves slowly through subsurface layers to streams, lakes, and the ocean. When the sun heats surface water, it evaporates and again becomes potential precipitation.

The range of temperatures, cloud cover, and moisture and evaporation levels, when combined with the effects of topography, vegetation, and development, can result in varying rainfall levels at any particular time in each of the watersheds in the County. In addition, long-term changes in snowpack and precipitation related to climate change could alter precipitation patterns, the regional availability and temperature of water, surface runoff, and sea level elevation.

2.2 Watersheds

The term watershed refers to the area of land that includes a particular river or lake and all the rivers, streams, and creeks that flow into it. Most land in Sonoma County falls within the three main watersheds: Russian River, Gualala River, and San Pablo Bay. **Table C-WR-1** and **Figures C-WR-1a-c** show the areas and locations, respectively, of the Watersheds and Sub-watersheds of the Sonoma County Coastal Zone, which lay both inside and outside Sonoma County.

Table C-WR-1: Area of Watersheds and Sub-Watersheds of the Sonoma County Coastal Zone

Watershed	Sub-Watershed	Total Area (square miles)	Area Within Coastal Zone (square miles)
Abbotts Lagoon-Frontal Pacific Ocean		107	<1
Gualala River		299	2
	South Fork Gualala River	44	2
Lower Russian River		148	15
	Dutch Bill Creek-Russian River	55	<1
	Willow Creek-Russian River	24	15
Salmon Creek-Frontal Pacific Ocean		256	52
	Bodega Harbor-Frontal Pacific Ocean	55	11
	Russian Gulch-Frontal Pacific Ocean	166	36
	Salmon Creek	35	4
Tomales Bay-Bodega Bay		160	17
	Bodega Bay	16	1
	Bodega Harbor	9	7
	Estero Americano	38	9

In general, watersheds in the northern areas of the County (Gualala River, Austin Creek, Dry Creek, Big Sulphur Creek, and Maacama Creek) consist of mountainous, rugged terrain with little urban development. Land use in these upper watersheds is predominantly rural, with timber production and grazing being the primary uses.

Most of central Sonoma County is part of the Russian River watershed and ultimately drains west to the Pacific Ocean. This area has moderate topography and lies in the ancient alluvial floodplain of the Russian River. Much of the suburban and urban development of Sonoma County is located inland within sub-watersheds, including Healdsburg, Windsor, Santa Rosa, Sebastopol, Rohnert Park and Cotati. These inland sub-watersheds drain to, and have the potential to impact, coastal surface waters and groundwater.

The Coastal Zone includes many small watersheds which are drained by stream segments that flow a short distance from the first coastal ridgeline directly to the Pacific Ocean. These individual small coastal drainage basins are collectively referred to as the Frontal Pacific Ocean watershed. Streams in these watersheds flow through areas of steep terrain and marine terraces. Coastal streams typically enter the ocean at small sandy beach inlets periodically along steep rocky coastal bluffs.

2.3 Aquifers

Groundwater is an important source of agricultural, industrial, and domestic water supply in Sonoma County. While the Russian River is the primary source of domestic water for the County's urban areas, most rural areas are served by groundwater. Groundwater resources are tapped by both municipal and private wells. However, not all groundwater in the County is of sufficient volume, has a reasonable rate of recharge, or is suitable for drinking water or other purposes.

Some groundwater naturally contains dissolved substances that can cause health problems, depending on the concentrations and combinations of the substances present. According to the State Water Resources Control Board (State Board), groundwater is also often polluted by human activities that generate contaminants such as microorganisms, gasoline and diesel fuels, solvents, nitrates, pesticides, pharmaceuticals, and metals. The underground flow and concentration of these contaminants, as well as the intrusion of ocean saltwater into groundwater, can be influenced by the extraction of groundwater and changes in levels of groundwater and surface water.

The California Department of Water Resources (DWR) has identified the groundwater basins and subbasins in Sonoma County in DWR Bulletin 118. In the Sonoma County Coastal Zone, they include the Bodega Bay Area (DWR 1-57, 2,680 acres), Wilson Grove Formation Highlands (DWR 1-59, size unavailable), Lower Russian River Valley (DWR 1-60, 10 square miles), and Fort Ross Terrace Deposits (DWR 1-61, 3.5 square miles in Sonoma County). **Figures C-WR-2a-c** shows the locations of the groundwater

basins in the Coastal Zone. None of these groundwater basins are currently designated by DWR as medium- or high-priority groundwater basins.

Most of the County's groundwater basins are centered along major creek and river valleys. Recharge of groundwater basins typically occurs along the major streams as well as their principal tributaries. The principal water bearing formations in Sonoma County groundwater basins are typically alluvium. While other geologic units can yield adequate amounts of water in some areas, much of the County may not have dependable groundwater supplies.

In the Coastal Zone, groundwater aquifers consist mainly of fractured bedrock of the Franciscan Complex, a large area of Jurassic and Cretaceous sedimentary, metamorphic, and igneous rocks from the ocean's crust that were mixed by shearing along faults and stuck to the continental edge as the ocean floor slid down under the edge of western North America.

In fractured rock aquifers, groundwater is stored in the fractures, joints, bedding planes, and cavities of the rock mass. The Franciscan Complex is generally considered to be non-water bearing; water availability largely depends on the nature of the fractures and their interconnection. Groundwater is derived from local rainfall that has percolated down into the rock, existing in small fractures in the zone of saturated rock below the water table.

Poor groundwater quality can be the result of geologic conditions, such as the highly mineralized water extracted from the Sonoma Volcanics or brackish water from the Petaluma Formation. Also, some groundwater naturally contains dissolved elements such as arsenic, boron, selenium, mercury or radon (a gas formed by the natural breakdown of uranium in the soil).

2.4 Water Rights

The California Constitution requires that water be used in a reasonable and beneficial manner and prohibits misuse and waste of water. Water is used beneficially when, for example, it is used to drink, grow crops, or wash cars. What is reasonable water use depends on the circumstances. For example, it could be unreasonable to wash cars during a severe drought. All types of water rights are subject to this constitutional provision, and a State agency, the State Board, is authorized to take action to prevent unreasonable uses of water.

There are two principal types of surface water rights in California, riparian rights and appropriative rights. A riparian water right allows a landowner bordering a watercourse

to share the water flowing past his property with other riparian landowners. An appropriative right is a use-based right dependent upon physical control and beneficial use of the water, rather than any special relationship between land and water. Since 1914, all new appropriations of surface water require a permit from the State.

The Sustainable Groundwater Management Act (SGMA) of 2014 provides for establishment of Groundwater Sustainability Agencies in designed groundwater basins and grants these agencies new authorities to manage groundwater use, recharge, and environmental impacts. The Act requires development of sustainable groundwater management plans for groundwater basins designated by Department of Water Resources as medium- or high-priority groundwater basins. Sonoma County is currently in the process of meeting the schedule for compliance with the new state law. There are no medium- or high- priority basins in the Coastal Zone.

2.5 Biotic Resources and Water

The policies in the Water Resources Element recognize the importance of natural vegetation and wildlife habitat, both as beneficial water uses whose needs must be considered but also as factors in maintaining adequate water quality and quantity. The supporting biotic resource goals, objectives, and policies are contained in the Open Space and Resource Conservation Element.

Trees and other natural vegetation depend on water, but their presence also affects the long-term quality and quantity of water resources in several ways. The natural vegetation found around wetlands, streams, and lakes benefits water quality by filtering out sediment and pollutants from stormwater runoff before it enters surface water bodies. Vegetation can also block stream flows and increase the retention of stormwater, thereby recharging groundwater, absorbing pollutants, and modifying peak flood levels. Vegetation on stream banks reduces bank erosion as a source of sediment. Trees and shrubs provide shade which can lower the temperature of the water and increase its value as fishery habitat in a warm climate. Streamside trees that fall into stream channels may aid fishery habitat by providing shelter, diverting flood flows, and scouring deep holes. The Open Space and Resource Conservation Element also includes discussion of the relationship of biotic resources to water.

Trees and other vegetation need and use water but also help maintain year-round water levels in streams and groundwater. In the fall, many trees stop absorbing water. Trees in exposed foggy areas reportedly increase precipitation. Trees in any location provide shade that cools the ground surface and reduces evaporation. Plants add moisture to the air through transpiration of water from their leaves.

2.6 Regulatory Framework

In Sonoma County, the Sonoma Creek and Petaluma River watersheds are in the Bay Area Regional Quality Control Board's jurisdiction, and the remainder of the County is under the jurisdiction of the North Coast Regional Water Quality Control Board. Waste discharge requirements are set by each Regional Water Board for point sources of pollution, including industrial and commercial uses, community wastewater and storm water management systems, and individual septic systems. Implementation of point source controls has led to improvements in the quality of discharges and regional water quality.

California's Non-point Source Pollution Control Program (CA NPS Program) addresses federal requirements under both the Clean Water Act and the Coastal Zone Management Act (Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990), by implementing California's Coastal Nonpoint Pollution Control Program on a statewide basis. The lead State agencies responsible for implementing the CA NPS Program are the State Water Resources Control Board, designated as the lead water quality agency) and the California Coastal Commission (designated as the lead coastal zone management agency), along with the nine Regional Water Boards. The California Coastal Act also mandates protection and restoration of water resources in the Coastal Zone.

The Local Coastal Program provides water quality protection measures in accordance with Coastal Act requirements for development in the Coastal Zone, which supplement the State Board's regulations. The Local Coastal Program is the standard of review for the Coastal Act Development Permits, issued by Sonoma County, including appeals to the Coastal Commission of Coastal Development Permits issued by Sonoma County.

Over time, development and land use have resulted in erosion, sedimentation, and degradation of surface water quality in the Russian River watershed and elsewhere. Surface water quality concerns in some watersheds include low levels of dissolved oxygen; high temperatures; and high levels of coliform bacteria, ammonia, nutrients, pathogens, metals, herbicides, pharmaceuticals and exotic species. These watershed conditions often impact coastal waters, especially in lagoons and coastal estuaries.

2.6.1 National Pollutant Discharge Elimination System

The focus of regulatory efforts has expanded in recent years to address surface runoff and pollutants entering into drainage channels, streams and groundwater. The National Pollutant Discharge Elimination System (NPDES) program requires individual permits for construction sites that disturb more than one acre of land, and for certain industrial and

commercial activities. The NPDES program also regulates and requires municipal area wide permits for urbanized areas under the Municipal Separate Storm Sewer System (MS4) permit program. Sonoma County's coastal area is not currently regulated under the MS4 permit program. However, design, siting, and planning requirements have been included in this Local Coastal Plan to provide a similar standard of water quality protection in the Coastal Zone.

2.6.2 Total Maximum Daily Load Program

The other major Clean Water Act program affecting the County in the future is the Total Maximum Daily Load (TMDL) program. Regional Water Boards are required to determine which surface water bodies are impaired, assess pollutant sources, determine acceptable levels, allocate allowable pollutant loads to various sources, and establish implementation programs. Impaired water bodies are those where beneficial uses of water are limited due to certain pollutants. Water bodies in Sonoma County that have been identified as impaired are the Russian River, Gualala River, Lake Sonoma, Santa Rosa Creek, Laguna de Santa Rosa, Estero Americano, Stemple Creek, Sonoma Creek, Petaluma River, and San Pablo Bay. Of these only the Russian River, Gualala River and Estero Americano are located within the Coastal Zone. Pollutants of concern typically in Sonoma County are sediment/siltation, nutrients, pathogens, and temperature but also include low dissolved oxygen, mercury, other metals, herbicides and exotic species. The listing of impaired water bodies is periodically re-evaluated by the Regional Water Boards.

The time frames for completing the TMDL processes in Sonoma County vary over the course of the next decade or so. In the meantime, Sonoma County will continue to be proactive in addressing water quality issues through a combination of education, restoration, and development policies. Total Maximum Daily Loads have been adopted for excess sediment and pathogens in Sonoma Creek and for urban pesticides in Petaluma River watershed as part of the Bay Area Regional Water Board's Urban Creek's Pesticide TMDL. TMDLs are also being developed for surface waters in the Coastal Zone including, the Russian River and Gualala River.

3. WATER RESOURCES POLICY

Regional, State, and Federal regulatory agencies and associated policies provide the framework for local water protections. The Water Resources Element establishes goals, objectives, and policies to further protect and sustainably manage coastal water resources.

3.1 Minimize Water Pollution from Runoff and Other Sources

GOAL C-WR-1: **Protect, restore and enhance the quality of surface and groundwater resources to meet the needs of all reasonable beneficial uses.**

Objective C-WR-1.1: Protect and, where feasible, restore the quality of coastal waters. Coastal waters include the ocean, rivers, streams, wetlands, estuaries, lakes, and groundwater.

Objective C-WR-1.2: Protect water quality and improve water quality of impaired surface waters. Focus water quality improvement efforts in coastal waters and watersheds which contain surface waters that are the most impaired, have the highest value for fish and wildlife, or are at most risk from future development.

Objective C-WR-1.3: Plan, site, and design development to minimize the transport of pollutants in runoff from the development, to avoid pollution of coastal waters.

Objective C-WR-1.4: Plan, site, and design development to minimize post-development changes in the site's runoff volume, flow rate, timing, and duration, to prevent adverse changes in the hydrology of coastal waters.

Objective C-WR-1.5: Reduce the degradation of surface water quality from the failure of septic and other wastewater treatment systems.

Objective C-WR-1.6: Educate the public about practices and programs to minimize water pollution, and provide educational and technical assistance to agriculture in order to reduce sedimentation and increase on-site retention and recharge of storm water.

Objective C-WR-1.7: Secure funding sources for development of Sonoma County Coastal Zone groundwater quality assessment, monitoring, remedial and corrective action, and awareness/education programs.

The following policies, in addition to those in the Land Use, Open Space and Resource Conservation, and Public Facilities and Services Elements shall be used to accomplish these objectives:

Policy C-WR-1a: The approval for any project proposed within 200 feet of an impaired surface water shall include as conditions of approval design features and mitigation measures to prevent impacts to the quality of such waters. **(New)**

Policy C-WR-1b: New development and redevelopment shall include measures to minimize post-development changes in the runoff flow regime, control pollutant sources, and, where necessary, remove pollutants. Such measures shall take into account existing

site characteristics that affect runoff (such as topography, drainage, vegetation, soil conditions, natural hydrologic features, and infiltration conditions). In addition, these measures should be considered early in site design planning and through alternative analysis. Such measures include, but may not be limited to the following:

(1) Incorporate storm water management measures.

(2) Use pollutant Source Control Best Management Practices (BMPs), which can be structural features (post construction) or operational actions (during construction), in all development to minimize the transport of pollutants in runoff from the development.

(3) Incorporate Treatment Control BMPs to remove pollutants of concern when the combination of site design and source control BMPs are not sufficient to protect water quality, or to meet State and Federal water quality objectives.

(4) Plan, site, and design development to maintain or enhance on-site infiltration of runoff, where appropriate and feasible. Minimize the installation of impervious surfaces, especially directly-connected impervious areas, and, where feasible, increase the area of pervious surfaces in re-development, to reduce runoff.

(5) Plan, site, and design development to protect and, where feasible, restore natural hydrologic features such as groundwater recharge areas, natural stream corridors, floodplains, and wetlands.

(6) Plan, site, and design development to preserve or enhance non-invasive vegetation to achieve water quality benefits such as transpiration, interception of rainfall, pollutant uptake, shading of waterways to maintain water temperature, and erosion control.

(7) In areas adjacent to an Environmentally Sensitive Habitat Area (ESHA), plan, site, and design development to protect the ESHA from any significant disruption of habitat values resulting from the discharge of storm water or dry weather flows. **(New) (Model LCP)**

Policy C-WR-1c: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate. **(New)**

Policy C-WR-1d: Avoid construction of new storm water outfalls and direct storm water to existing facilities with appropriate treatment and filtration, where feasible. Where new outfalls cannot be avoided, plan, site, and design outfalls to minimize adverse impacts to coastal resources from outfall discharges, including consolidation of existing and new outfalls where appropriate. **(New) (Model LCP)**

Policy C-WR-1e: Some developments have a greater potential for adverse impacts to water quality and hydrology due to the extent of impervious surface area, type of land use, or proximity to coastal waters or tributaries. As determined by Permit Sonoma, on

a case-by-case basis, such developments may require Treatment Control Best Management Practices (BMPs) for post-construction treatment of storm water runoff. Applicants for these types of developments shall do the following:

(1) Conduct a polluted runoff and hydrologic site characterization by a qualified licensed professional, early in the development planning and design stage, and document the expected effectiveness of the proposed BMPs.

(2) Conduct an alternatives analysis to demonstrate that there are no appropriate and feasible alternative project designs that would substantially improve on-site runoff retention, if a proposed development will not retain on-site the runoff volume from the appropriate design storm using a Low Impact Development (LID) approach.

(3) Use Treatment Control BMPs or suites of BMPs designed to treat, infiltrate, or filter the amount of storm water runoff produced by all storm events up to and including the 1st inch of a 24 hour storm event, and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.

(4) Use Treatment Control BMPs or suites of BMPs to remove pollutants from any portion of the design storm runoff volume that will not be retained on-site, or if additional pollutant removal is necessary to protect coastal waters.

(5) Use a Runoff Control BMP or suites of BMPs including LID and minimization of impervious surfaces for the design storm, consistent with Regional Water Quality Control Board storm water permits or applicable State Water Resources Control Board requirements, to minimize adverse post-development changes in the runoff flow regime. **(New) (Model LCP)**

Policy C-WR-1f: Permits for new development shall be conditioned to require a mechanism for verification of inspection, monitoring, repair, and maintenance of Source Control and Treatment Control Best Management Practices (BMPs) as necessary so that they function properly for the economic life of the development. The condition shall specify that this requirement runs with the land, such that the burden for implementing this requirement becomes the responsibility of the new owner upon transfer of the property. **(New) (Model LCP)**

Policy C-WR-1g: Approvals for new development and redevelopment shall ensure water quality impacts from construction are minimized by:

(1) Limiting the project footprint, phasing grading activities, implementing soil stabilization and pollution prevention measures, and preventing unnecessary soil compaction;

(2) Limiting land disturbance from construction (e.g., clearing, grading, and cut-and-fill), especially in erosive areas (including steep slopes, unstable areas, and erosive soils);

(3) Requiring soil stabilization Best Management Practices be implemented over disturbed areas as soon as feasible;

(4) Requiring that grading plans include measures to avoid soil erosion and sedimentation of storm water to the maximum extent feasible;

(5) Requiring as a condition of grading permit approval for all new development, regardless of the area of land to be disturbed, that soil stabilization and erosion control measures be installed in erosive areas of construction sites (e.g., steep slopes, unstable areas, and erosive soils);

(6) Requiring treatment control BMP's adequate to avoid adverse impacts to habitat and water quality be identified and implemented for new development in or adjacent to Environmentally Sensitive Habitat Areas on sites that drain directly to surface waters, regardless of the area of land to be disturbed;

(7) Requiring inspection of construction sites to verify implementation of approved erosion control plans and Storm Water Pollution Prevention Plans; and

(8) Requiring BMPs be implemented for constructing, maintaining, and repairing roads and trails in County parks, including stabilizing erosion, clearing vegetation, resurfacing, and removing slide debris. **(New) (Model LCP)**

Policy C-WR-1h: All projects which involve construction of new storm drain inlets or maintenance of existing inlets shall be required to add a sign or stencil to each inlet with the equivalent of this language: "No dumping, drains into creek/ocean." **(New)**

Policy C-WR-1i: For new development and redevelopment projects that could affect water resources of Sonoma County's Coastal Zone, as a condition of permit approval and prior to permit issuance, require the applicant to:

(1) Provide proof that all applicable local, state, and federal approvals related to water resources protection have been obtained. Such permits may include, but are not necessarily limited to the following:

    a. National Pollutant Discharge Elimination System Permits (State and Regional Water Quality Control Boards)

    b. Lake and Streambed Alteration Agreement (California Department of Fish and Wildlife)

    c. Clean Water Act Section 404 Permit (U.S. Army Corps of Engineers)

(2) Submit final project designs that demonstrate incorporation of applicable regulatory requirements, resource agency conditions of permit approval, and associated best management practices related to water resources protection. **(New)**

Policy C-WR-1j: The abatement of failing septic systems that pose a risk to public health or the environment shall be actively pursued. **(GP2020)**

Policy C-WR-1k: Initiate a review of any sewer system when it persistently fails to meet applicable standards. If necessary to assure that such standards are met, the County may deny new development proposals or impose moratoria on building and other permits that would result in a substantial increase in demand, and may impose strict treatment and monitoring requirements. **(GP2020)**

Policy C-WR-1l: Ensure that agricultural operations reduce non-point source pollution through the development and implementation of County-approved ranch plans and farm plans that demonstrate how the applicant intends to avoid, minimize, or mitigate the impact to water quality from agriculture. **(GP2020)**

Policy C-WR-1m: Design, construct, and maintain County buildings, roads, bridges, drainage, and other facilities to avoid or minimize sediment and other pollutants in storm water runoff. Implement Best Management Practices for their ongoing maintenance and operation. **(GP2020)**

Policy C-WR-1n: Encourage removal of abandoned, deteriorated piers and associated buildings in Bodega Bay, particularly those within the alignment of future trails. **(New)**

3.2 Groundwater

Sonoma County's groundwater plays an extremely important role in our natural environment, communities, industry sectors, and agriculture. In 2002, there were about 40,000 wells in Sonoma County, with 42 percent of the population supported at least in part by groundwater. Nearly all of the County's population relies on groundwater as either a primary or backup source of water supply. In the Coastal Zone, most users obtain their water from groundwater. Groundwater wells also supply community water systems and occasionally provide a supplemental or backup source for other sheet water flow collection systems. The release of contaminants or pollutants into groundwater from natural sources or human activities may have adverse impacts on human health, the environment, and property depending on the type, location, and quantity of materials released.

The amount of groundwater in an area varies by the recharge from rainfall, the surface runoff in streams and drainage channels, and the local underground geology. The alluvial soils, sand, and gravel found in valleys generally can hold large amounts of water and thus constitute the largest aquifers in the County. Sandstone and some other sedimentary rocks can still absorb some water. However, many upland areas and the Coastal Zone are comprised of harder rock formations that lack water storage capacity.

The climate of coastal Sonoma County provides abundant rainfall during the winter months, and potentially abundant groundwater recharge on an annual basis. The continual shortage of groundwater supplies in this area can be traced directly to the lack of storage capacity in much of the Franciscan Formation rocks that underlie the area. The Franciscan Formation is a large area of mixed sedimentary, metamorphic, and igneous rocks. Groundwater is stored in the fractures, joints, cavities, and bedding planes of the rocks. Rainfall that would otherwise percolate into the aquifer simply runs off into creeks and streams and then to the ocean for lack of storage space in most of the rocks.

Using information on geology and water yields, the County uses a four tier classification system to indicate general areas of groundwater availability. Class 1 are Major Groundwater Basins, Class 2 are Major Natural Recharge Areas, Class 3 are Marginal Groundwater Availability Areas, and Class 4 are Areas with Low or Highly Variable Water Yield. In addition to County mapping, the State regularly updates the maps of groundwater basins and prioritizes groundwater basins for sustainable management in the County.

With three small exceptions, Sonoma County's Coastal Zone is within the Class 4 Groundwater Availability Area. The exceptions are the Fort Ross Terrace Deposits groundwater basin, in the vicinity of The Sea Ranch, which is Class 3; the Lower Russian River Valley groundwater basin, adjoining the Russian River as far west as State Highway 1, which is Class 1; and the Wilson Grove Formation Highlands groundwater basin, along State Highway 1 North of the Estero Americano, which is Class 2. The remainder of the Coastal Zone is composed of Franciscan Complex rocks whose serpentine and shale members are typically non-water bearing. Chert, greenstone, and sandstone members of the Franciscan may possess water bearing fractures that yield sufficient and occasionally abundant water in some locations. The location of water-bearing bedrock is difficult to predict, so water availability is uncertain.

Public concerns over depletion of groundwater supplies have increased as development that relies on groundwater supply has increased. The County fully participates in the California Statewide Groundwater Elevation Monitoring (CASGEM) and continues to collect data about existing groundwater levels, water quality, and water use to best inform planning decisions.

In response to reports that groundwater levels have declined in some areas, the County has initiated a long-term program to increase the available data on groundwater resources and to systematically organize and use it as development is planned and new well permits are sought. Programs are underway to assess the available groundwater in

the County's three major basins, Santa Rosa Plain, Sonoma Valley and Petaluma Valley. In the fractured rock areas of the Coastal Zone, data from monitoring will improve our understanding of available groundwater resources. This growing body of data will produce better information for County decision makers to determine what further measures may be appropriate in order to properly manage groundwater resources.

GOAL C-WR-2: **Manage groundwater as a valuable and limited shared resource.**

Objective C-WR-2.1: Conserve, enhance, and manage groundwater resources on a sustainable basis that assures sufficient amounts of clean water required for future generations, the uses allowed by the Local Coastal Plan, and the natural environment.

Objective C-WR-2.2: Develop a scientifically based program to collect the data needed to assess and understand groundwater conditions.

Objective C-WR-2.3: Encourage new groundwater recharge opportunities and protect existing groundwater recharge areas.

Objective C-WR-2.4: Increase institutional capacity and expertise within the County to competently review hydrogeologic reports and data for critical indicators and criteria.

The following policies, in addition to those in the Public Facilities and Services, Land Use, and Open Space and Resource Conservation Elements, shall be used to accomplish these objectives:

Policy C-WR-2a: Ensure sufficient groundwater quantity and quality for existing and proposed uses reliant upon groundwater wells through application of County standards for pump tests, well yields, pollutant levels, and water storage, particularly for higher capacity wells. **(GP2020)**

Policy C-WR-2b: Continue the County program to require groundwater monitoring for new or expanded commercial and industrial operations using wells. Where justified by the monitoring program, establish additional monitoring requirements for other new wells. **(GP2020)**

Policy C-WR-2c: Proof of groundwater with a sufficient yield and quality to support proposed uses in Class 3 and 4 Groundwater Availability Areas shall be required for discretionary permits. Test wells may be required in Class 3 Groundwater Availability Areas. Test wells or the establishment of community water systems to support new development in Class 4 Groundwater Availability Areas shall be required. Permit applications for new development in Class 3 and 4 Groundwater Availability Areas shall be denied unless the applicant can demonstrate through a hydrogeologic report that the proposed use will not cause an adverse effect on groundwater quantity or quality, or

exacerbate an overdraft condition in a groundwater basin, subbasin, or fractured rock aquifer. Procedures for proving adequate groundwater shall consider streamflow, groundwater overdraft, land subsidence, saltwater intrusion, and the expense of such study in relation to the water needs of the project. **(GP2020)**

Policy C-WR-2d: New development and redevelopment projects in Urban Service Areas, where the density of development and thus extent of impervious surface area is greater than in Rural Communities, shall be required to maintain the site's pre-development recharge of groundwater to the maximum extent practicable. **(GP2020)**

Policy C-WR-2e: Encourage public water suppliers to monitor and report groundwater levels, yields, and other information on groundwater conditions. **(GP2020 Revised)**

3.3 Public Water Systems

An adequate and sustainable water supply is essential if Sonoma County is to serve projected increases in population, housing, employment, business, and agriculture. The main purpose of this section is to address what the County can do to help maintain the long-term adequacy of water supply services provided by public and private entities, given the legal limitations on the County's authority over such services.

The Sonoma Coast has about 16 water systems which fall under the regulatory authority of the SWRCB as a public water system.

The large public water systems on the coast are The Sea Ranch Water Company with 1,857 connections and the Bodega Bay Public Utilities District with 1,058 connections. The small public water systems range from the Sereno del Mar Mutual Water Company with 168 connections to the Blue Heron Restaurant with one connection. The small public water systems supply water to a wide variety of uses such as businesses, residences, schools, and small unincorporated communities. Most are owned by mutual companies or other private entities, and a few are operated by special districts. These systems have small revenue bases and relatively high per capita costs and often have difficulty financing major capital investments needed to replace aging facilities or accommodate growth. Additional information about public water systems on the coast is provided in Public Facilities and Services Element Section 3.1 (Water Services) and **Table C-PF-1**.

All public water systems must meet and maintain water quality standards established by the Sonoma County Department of Health Services and the Regional Water Quality Control Boards. The suppliers are required to prepare and adopt wellhead protection plans that will avoid future contamination. To the extent that these plans may need to rely upon the regulation of land uses around supply wells, the County's cooperation may be necessary.

In light of concerns over the future availability of water from surface and groundwater sources, water conservation, re-use, and alternative resources are increasingly important to providing adequate water supplies in the future.

GOAL C-WR-3: **Encourage public water suppliers to provide an adequate water supply that meets long-term needs, is consistent with the adopted Local Coastal Plan and community water management plans, and maintains water resources for other water users while protecting the natural environment.**

Objective C-WR-3.1: Assist public water suppliers in collecting and disseminating surface and groundwater data, assessing available water supplies, and protecting water quality.

Objective C-WR-3.2: Work with public water suppliers in developing and implementing long-term plans for water supply, storage, and delivery necessary to first meet existing water demands; and secondly to meet planned growth within the designated service areas, consistent with the sustainable yield of water resources.

Objective C-WR-3.3: Work with public water suppliers to balance reliance on groundwater and surface water to assure the sustainability of both resources.

The following policies, in addition to those in the Land Use and Public Facilities and Services Elements, shall be used to accomplish these objectives:

Policy C-WR-3a: Assist public water suppliers in complying with Federal and State water quality standards by assuring that water sources used for public water systems are not contaminated by land uses or pollutants in the watershed, by supporting continued study and monitoring of water quality, and by encouraging acquisition of critical watershed areas by the water suppliers or the Sonoma County Agricultural Preservation and Open Space District. In furtherance of this initiative, work with public water suppliers in developing and implementing wellhead protection plans. **(GP2020)**

Policy C-WR-3b: Encourage local public agencies that are public water suppliers, including county-dependent districts, special districts, and other local public agencies, to consult with the County prior to acquiring a site or developing any well or facility for public water supplies in the unincorporated area; and require a determination of consistency with the Local Coastal Plan and supporting technical documentation for development of any such well or facility. **(GP2020)**

Policy C-WR-3c: Encourage the preparation of master facilities plans and urban water management plans for all public water suppliers to design and construct all facilities in accordance with sustainable yields. A master facilities plan should contain, but not be limited to the following:

(1) Maps showing future service area boundaries;

(2) Forecasted growth and relationship to Local Coastal Plan projections and limits;

(3) Projected service and facility needs;

(4) Estimated costs and revenues for needed improvements;

(5) System design parameters and assumptions;

(6) Monitoring and mitigation measures to assure long-term adequacy of sources, including during possible drought conditions; and

(7) Water conservation measures.

In the event that a master plan or monitoring fails to show adequate public water facilities or supplies for planned growth, consider moratoria on plan amendments, zoning changes, building permits, or other entitlements in order to protect services to existing residents. **(GP2020)**

Policy C-WR-3d: Support the actions and facilities needed by public water suppliers to meet the demands estimated in adopted master facilities plans, consistent with the adopted Local Coastal Plan, community water management plans, and in a manner that protects the natural environment. **(GP2020)**

Policy C-WR-3e: Encourage public water suppliers to avoid or minimize significant adverse impacts on the environment resulting from water supply, storage, and transmission facilities, including impacts on other water users. **(GP2020)**

Policy C-WR-3f: Support cooperative inter-regional planning efforts by the public water suppliers, their contractors, and other existing water users, to consider future demand projections concurrently with the availability of sustainable water supplies. **(GP2020 Revised)**

3.4 Water Conservation and Re-Use

Water conservation has long been a practice in Sonoma County households, businesses, and agriculture. The rise of environmental consciousness in the 1970s and a prolonged drought in 1976 and 1977 led to the early efforts by some water suppliers to reduce demand. Planned re-use of treated water in the Santa Rosa Plain was initiated by the City of Santa Rosa during this same period as part of its regional wastewater system. Most of these earlier conservation efforts were not well publicized and, due to the

relative abundance of fresh water sources (outside the Coastal Zone), were not thought to be significant as a water supply strategy.

In recent years, both water conservation and re-use programs have expanded considerably. As advanced treatment has become an increasingly standard practice, re-use programs are becoming even more viable. Meeting peak water demands in the future may require increased water conservation efforts and water recycling by water users in both urban and rural areas.

The Sonoma Coast has always been a water scarce area. As described above in Section 3.2 (Groundwater), most of the County's Coastal Zone is in a Class 4 Groundwater Availability Area, underlain by typically non-water bearing Franciscan rocks. Therefore, there is an even greater need within the County's Coastal Zone to increase the efficiency of water use and reduce demand for water by applying new water conservation and re-use technology and implementing water conservation programs.

GOAL C-WR-4: **Increase the role of water conservation and safe, beneficial water re-use in meeting water supply needs of both urban and rural users.**

Objective C-WR-4.1: Increase the use of recycled water where it meets appropriate standards of quality and quantity for the intended use.

Objective C-WR-4.2: Promote and encourage the efficient use of water by all water users.

Objective C-WR-4.3: Conserve and recognize stormwater as a valuable resource.

The following policies, in addition to those in other sections of the Water Resources Element and the Public Facilities and Services Element, shall be used to accomplish these objectives:

Policy C-WR-4a: Require stormwater and wastewater disposal methods in accordance with all applicable Federal, State, and local regulations to avoid or minimize reliance on discharges into natural waterways. Where applicable, comment on projects and environmental documents to ensure that low impact development practices and reclamation, conservation, and reuse programs are protective of surface and groundwater resources. **(GP2020)**

Policy C-WR-4b: Water conserving plumbing and water conserving landscaping shall be required in all new development projects. Prior to building permit issuance, the applicant shall submit to Permit Sonoma for review and approval a Water Conservation Plan for all buildings and landscaping. The Water Conservation Plan shall include all reasonably feasible measures to reduce water demand to the maximum extent feasible

and enhance water resource recovery to maintain sustainable water supplies. Measures that must be evaluated include: installation of low-flow fixtures, best available conservation technologies for all water uses, rainwater and stormwater collection systems and graywater reuse. Landscaping plans must comply with the County Water Efficient Landscape Ordinance. Verification from a qualified irrigation specialist that landscaping plan complies with the County Ordinance shall be provided. The measures in the plan shall be implemented by the applicant and verified by Permit Sonoma staff prior to Certificate of Occupancy or operation of the use. **(GP2020 Revised)**

Policy C-WR-4c: County operated water systems shall be required to minimize water loss and waste and promote programs to minimize water loss and waste by public water suppliers and their customers. **(GP2020 Revised)**

Policy C-WR-4d: Encourage and support conservation for agricultural activities that increase the efficiency of water use for crop irrigation, frost protection, and livestock. **(GP2020)**

Policy C-WR-4e: Ensure that public wastewater disposal systems are designed to reclaim and reuse recycled water for agriculture, geothermal facilities, landscaping, parks, public facilities, wildlife enhancement, and other uses to the extent practicable, provided that the water meets the applicable water quality standards and is supplied in appropriate quantities for the intended uses. **(GP2020)**

Policy C-WR-4f: Encourage graywater systems, roof catchment of rainwater, and other methods of re-using water; and minimizing the need to use potable surface water or groundwater. **(GP2020)**

Policy CWR-4g: Encourage property owners to incorporate only native, drought-tolerant, and low water use plants to conserve water and reduce the potential for runoff and erosion. **(New)**

Policy C-WR-4h: Support programs to monitor and determine per capita or per unit water use in each community and area, and use these data in groundwater management plans, master facilities plans, and wastewater treatment plans. **(GP2020)**

Policy C-WR-4i: Encourage monitoring for all water use and water metering for public water suppliers that require water users to pay for costs of the amount of water used. Encourage tiering and other pricing mechanisms for public water suppliers that provide incentives for water users to employ conservation and reuse programs. Actively encourage public water suppliers to maximize water re-use and conservation prior to increasing net water use for new development**. (GP2020)**

Policy C-WR-4j: Promote programs for retrofitting plumbing, providing cost rebates, identifying leaks, changing landscaping, irrigating efficiently, and other methods of reducing water consumption by existing users. **(GP2020)**

3.5 Water Importing and Exporting

For many years, Sonoma County has relied to some degree upon importation of water from sources outside of the County borders. Since 1908, water has been diverted from the Eel River watershed in Mendocino County through a hydroelectric power plant into the Russian River watershed. This water has increased dry season flows in the Russian River and supplemented water supplies for downstream users.

GOAL C-WR-5: **Ensure that new proposals for surface and groundwater imports and exports are consistent with Sonoma County's ability to sustain an adequate supply of high quality water for all its water users and dependent natural resources.**

Objective C-WR-5.1: Protect the interests of current and future water users of Sonoma County in the review of proposals to export water from Sonoma County.

Objective C-WR-5.2: Ensure consideration of the environmental impacts of all proposed water imports and exports.

The following policies, in addition to those in the other sections of the Water Resources Element, shall be used to accomplish these objectives:

Policy C-WR-5a: Assess the environmental impacts and the impacts on current and future Sonoma County water users of any proposals to physically export water outside of Sonoma County, or to substantially increase existing out-of-County exports. Consideration of any proposal to export additional water shall prioritize benefit of and need for the water in Sonoma County, and assure that water needed by Sonoma County's urban, rural, and agricultural water users will not be exported outside the county. **(GP2020)**

Policy C-WR-5b: Full assessment of the environmental impacts shall be required for any proposals to import additional water into Sonoma County. **(GP2020)**

Policy C-WR-5c: Where allowed by State law, require that groundwater not be exported off-site for commercial purposes without prior County approval. **(GP2020)**

3.6 Watershed Management

Watershed management is a holistic approach to managing water resources and other watershed functions such as fish and wildlife, riparian functions, and ecological services. Watershed management allows for an integrated approach to surface water, groundwater, and water supply management taking into account effects on stream flow, groundwater levels, water quality and habitat conditions.

GOAL C-WR-6: **Improve the understanding, valuation, and sound management of the water resources in the diverse watersheds of the Sonoma County coast.**

Objective C-WR-6.1: Seek and secure funding for addressing water resource issues on a watershed basis.

Objective C-WR-6.2: Ensure consideration of the environmental impacts of all proposed water imports and exports.

The following policies, in addition to those in other sections of the Water Resources Element, shall be used to accomplish these objectives:

Policy C-WR-6a: Prioritize a watershed management approach to remediating identified water related problems. **(GP2020)**

Policy C-WR-6b: Utilize the North Coast Integrated Coastal Watershed Management Plans for the Salmon Creek and the Russian River Watersheds where appropriate and feasible. **(New)**

4. IMPLEMENTATION PROGRAMS

4.1 Water Resources Implementation Programs

Program C-WR-1: Develop and provide educational, outreach, or technical assistance programs focusing on water quality to owners and managers of agricultural operations and timberlands. Inform owners and managers of agricultural lands, including vineyards, orchards, row crops, grazing, ranches, and dairies, about the Agricultural Commissioner's Best Management Practices for erosion and sediment control, including on-site retention of storm water, maintenance of natural sheetflow and drainage patterns, and avoidance of concentrated runoff, particularly on slopes greater than 35 percent; and for protection of streams and other surface waters from the effects of livestock grazing. **(New)**

Program C-WR-2: Develop and require compliance with standards for the siting and design of harbors, marinas, and other waterfront development, regardless of the size of

the area to be disturbed. Require stormwater source control Best Management Practices to minimize polluted runoff including installation of trash receptacles with lids, posting of No Littering signs; and installation and maintenance of filters in storm drains. **(New)**

Program C-WR-3: Consider developing guidelines for development in Rural Communities that would provide for retention of the site's pre-development rate of groundwater recharge. **(GP2020 Revised)**

Program C-WR-4: Initiate and support educational programs to inform residents, business and agriculture owners and operators, and other groundwater users of best management practices in the areas of efficient water use, water conservation, and increasing groundwater recharge. **(GP2020)**

Program C-WR-5: In cooperation with the Sonoma County Water Agency, California Department of Water Resources, other public agencies, and well owners, establish and maintain a system of voluntary monitoring of wells throughout the County, using public water system wells and private wells where available. Encourage participation in voluntary monitoring programs and, if funds are available, consider funding of well monitoring where determined necessary in order to stimulate participation. **(GP2020)**

Program C-WR-6: In order to assess groundwater resources, review well permit data, monitoring data and identify special study areas where additional groundwater studies are needed. In each such special study area that is approved by the Board, develop a comprehensive groundwater assessment that includes the following:

(1) An existing system of monitoring wells and stream gauges;

(2) Locations of water wells;

(3) Available data on groundwater and surface water levels and contamination;

(4) Maps and graphs that show past and present data and changes in precipitation, imports, groundwater levels, groundwater quality, rates of extraction, and the relationship of groundwater to surface water;

(5) Drillers' logs, geologic data and monitoring data needed to estimate water yields in the area;

(6) Estimated future rates of imports, recharge, extraction, exports, changes in groundwater levels, and possible changes in groundwater quality;

(7) A water budget for the area that estimates the total amount of water gain or loss in the area;

(8) Any needed changes in well monitoring, data collection and reporting; and

(9) Provisions for applicant fees and other funding of County costs.

If an area assessment, as defined above, demonstrates a need for additional management actions to address groundwater problems, a plan for managing groundwater supplies shall be prepared pursuant to the California Water Code or the County's land use or other legal authority. Include involvement by the affected water users, well drillers, local agencies, private water companies and landowners. **(GP2020)**

Program C-WR-7: Work with the State Water Resources Control Board, California Department of Water Resources, California Department of Health Services, California Environmental Protection Agency, public water suppliers, and applicable County agencies to secure funding sources for developing groundwater assessment, protection, enhancement, and management programs. **(GP2020)**

Program C-WR-8: Develop a program to facilitate the tracking and maintenance of consistency between the adopted Local Coastal Plan, adopted groundwater management plans, and the master facilities plans of public water suppliers. Such a program should include meetings between Permit Sonoma and public water suppliers, Permit Sonoma review of proposed master facilities plans, and referral of Local Coastal Plan changes to all public water suppliers. **(GP2020)**

Program C-WR-9: Use water effectively and reduce water demand by developing programs to:

(1) Increase water conserving design and equipment in new construction, including the use of design and technologies based on green building principles;

(2) Educate water users on water conserving landscaping and other conservation measures;

(3) Encourage retrofitting with water conserving devices;

(4) Design wastewater collection systems to minimize inflow and infiltration; and

(5) Reduce impervious surfaces to minimize runoff and increase groundwater recharge. **(GP2020)**

Program C-WR-10: Assess water use by County buildings and facilities and reduce water consumption to the maximum extent feasible. **(GP2020)**

Program C-WR-11: Consider amending County codes to increase the use of recycled water for new commercial, residential, and agricultural development. **(GP2020 Revised)**

Program C-WR-12: Where a problem related to water is identified, promote and seek funding for evaluating and remediating the problem through a watershed management approach. **(GP2020)**

4.2 Other Initiatives

Other Initiative C-WR-1: Work with the California Coastal Commission, Regional Water Board, Sonoma County Water Agency, public water suppliers, and other interested parties to minimize polluted runoff from development, and to continue to develop and implement effective water quality plans and measures. **(GP2020)**

Other Initiative C-WR-2: Work with the Regional Board in development of TMDLs, TMDL Implementation Plans, water quality monitoring, and programs and projects for water quality restoration and remediation for impaired water bodies to improve water quality. **(GP2020)**

Other Initiative C-WR-3: Continue to cooperate with Mendocino County, the Regional Water Board, and CalFire to reduce water quality impacts of timber harvest in the Gualala River watershed. **(New)**

Other Initiative C-WR-4: Coordinate with the North Coast Regional Water Quality Control Board, California Coastal Commission, watershed focus groups, and stakeholders in collecting, evaluating, and using coastal watershed-specific water resource information. **(GP2020)**

Other Initiative C-WR-5: Work with the Regional Water Board and coastal communities to evaluate and monitor impacts on surface and groundwater quality caused by the operation of septic systems in existing and suspected problem areas. **(New)**

Other Initiative C-WR-6: Coordinate with the U.S. Army Corps of Engineers, the Regional Water Board and the Coastal Commission to continue maintenance dredging in Bodega Bay and other areas on the Sonoma Coast in accordance with the California Coastal Act. Dispose of dredge spoils in a manner that protects habitat and water quality and in accordance with all local, state, and federal permit requirements. **(New)**

Other Initiative C-WR-7: Support the Sonoma County Water Agency with development of flood control design criteria that considers stream geomorphic analysis, and the use of biotechnical bank stabilization methods for the purpose of preventing erosion and siltation in drainage swales and streams. **(GP2020)**

Other Initiative C-WR-8: Work with public water suppliers in assessments of the sustainable yield of surface water, groundwater, recycled water, and conserved water, including during possible drought periods. This work should include the exploration of potentially feasible alternative water supplies. Surface and groundwater supplies must remain sustainable and not exceed safe yields. **(GP2020)**

Other Initiative C-WR-9: Request technical assistance and water resource data from public water suppliers and share available water resource information with them and the public. **(GP2020)**

Other Initiative C-WR-10: Help public water suppliers disseminate information on the limits of available water supplies, how the supplies can be used efficiently, the possible effects of drought conditions, acceptable levels of risk of shortage for various water users, priorities for allocation of the available water supply, conditions for use of limited supplies, and limits of alternate sources that could be used or developed. Towards this end, support water conservation and education programs which provide measurable targets for public water suppliers. **(GP2020)**

Other Initiative C-WR-11: Cooperate with public water suppliers in planning, developing, and constructing storage and transmission facilities needed to supply water pursuant to adopted Local Coastal Plan policies, urban water management plans, water supply agreements, master facilities plans and, where applicable, programs to mitigate identified groundwater overdraft conditions. **(GP2020)**

Other Initiative C-WR-12: Coordinate with the North Coast Regional Water Quality Control Board and California Department of Water Resources to promote stormwater impoundments for agricultural uses. **(GP2020)**

Other Initiative C-WR-13: Encourage and support research on and monitoring of local groundwater conditions, aquifer recharge, watersheds, and streams where needed to assess groundwater quantity and quality. **(GP2020)**

Other Initiative C-WR-14: Encourage and support comprehensive studies of long-term changes in climate and precipitation patterns in the County and region. **(GP2020)**

Other Initiative C-WR-15: Where area studies or monitoring find that saltwater intrusion into groundwater has occurred, support analysis of how the intrusion is related to groundwater extraction; and support development of a groundwater management plan or other appropriate measures to avoid further intrusion and, where feasible, reverse past intrusion. **(GP2020)**

PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

PUBLIC SAFETY 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
September XX, 2019

PUBLIC SAFETY ELEMENT

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PUBLIC SAFETY ELEMENT

1. INTRODUCTION

1.1 Purpose

1.1.1 California Coastal Act

The Sonoma County coast contains 3,755 dwelling units as of 2018(Permit Sonoma GIS Community Profile) and, due to its outstanding natural beauty and recreational opportunities, hosts millions of visitors every year. However, many areas of the Coastal Zone are exposed to hazards related to earthquakes, geologic instability, flooding, sea level rise, tsunamis, coastal bluff erosion, wildland fire, and hazardous materials. The Public Safety Element establishes goals, objectives, and policies to protect the coastal residents and visitors from unreasonable risks from these hazards. The Element also identifies ongoing County initiatives, "Other Initiatives," that support public safety and promote inter-agency and community collaboration. Programs to implement proposed policies are also identified at the end of this element.

The 1976 California Coastal Act directs that new development minimize risks to life and property from environmental hazards and to avoid substantial alteration of natural land forms. Below is Section 30253, the applicable section of the Coastal Act.

> *Section 30253.*
>
> *New development shall do all of the following:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluff and cliffs.*
>
> *(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*
>
> *(4) Minimize energy consumption and vehicle miles traveled.*
>
> *(5) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*

The Public Safety Element establishes goals, objectives, and policies to minimize potential human injury and property damage by guiding future development to reduce the exposure of persons and property to the above hazards. The policies in this Element are intended to avoid development which would result in unacceptable risks to the residents, visitors, private property, public facilities, and infrastructure in the Coastal Zone; and to minimize risks for existing development already located in hazard areas. Acceptable levels of risk are based on the nature of each hazard, the frequency of exposure, the number of persons exposed, and the potential damage.

The policies in the Public Safety Element are intended to avoid development which would adversely affect existing and future residents, visitors, and property; and to not place an undue financial burden on property owners and taxpayers by allowing development in hazard areas which may have unusually high costs for public services and disaster relief. The Public Safety Element is based on the best available science and information and official data sources to delineate areas potentially at risk from various hazards. It includes maps of known high hazard areas to not only guide development but also to increase awareness of inhabitants and aid in disclosure of potential hazards in real estate transactions.

The Public Safety Element is only one part of a comprehensive countywide approach to address hazards that also includes emergency response plans, pre-disaster preparation and training, pre-disaster mitigation, design and construction standards, and education.

1.2 Relationship to Other Elements

The hazards addressed in the Public Safety Element and the sensitivity of various land uses have been considered in preparing the Land Use Element. Policies in the Land Use Element limits the range of land uses allowed in high hazard areas to reduce the number of people and structures exposed to risk. The Public Safety Element policies are also coordinated with the policies of the Open Space and Resource Conservation, Public Facilities and Services, Circulation and Transit, and Land Use Elements.

1.3 Relationship to Other Plans and Regulations

The Local Coastal Plan, and Coastal Zoning Ordinance that implement it, are not the only means to minimize risks to public safety and property from hazards in the Coastal Zone. Local Coastal Plan policies are intended to be complementary to federal, state, and local laws, regulations, and plans that impose siting and design or other regulatory requirements to minimize risks from natural hazards to public safety and property and increase community resilience to these hazards. Implicit in the Public Safety Element is

the assumption that the County will continue to comply with these laws, regulations, and plans.

1.3.1 United States Coast Guard Sector San Francisco Area Contingency Plan

The Federal Water Pollution Control Act (Clean Water Act) prohibits discharges of oil and hazardous substances into or upon the Nation's waterways, shorelines, and adjoining areas. The Act mandates development of a National Contingency Plan, providing for coordinated federal response to releases of such materials. The Act also provides for the preparation of Area Contingency Plans (ACPs) for specific geographic regions.

The Sector San Francisco ACP covers the land masses and waters of Northern California, including Sonoma County and describes the authorities, roles, and responsibilities of parties involved in National Contingency Plan development and implementation. The ACP includes an inventory, along with maps and descriptions where appropriate, of notable sensitive resources that could be damaged by a release of oil or other hazardous material. The inventory includes biological and cultural resources at dozens of sites along the Sonoma Coast. For each site, the ACP describes resources of concern, known natural hazards in the area, response strategies specific to the site, and an overview of response logistics.

The U.S. Coast Guard has authority and jurisdiction to coordinate spill responses within the Coastal Zone. In the event of a spill or release, a U.S. Coast Guard representative, or Federal On-Scene Coordinator, evaluates the severity of the event and coordinates the response with other federal, state, and local agency representatives, in accordance with the ACP and other applicable plans, laws, and regulations. Sonoma County Departments that could be involved in the response effort include the Fire and Emergency Services Department, Sherriff's Office, and Department of Health Services, among others.

1.3.2 Sonoma County Hazard Mitigation Plan

The Federal Disaster Mitigation Act of 2000 requires local governments to adopt and implement a local hazard mitigation plan in order to be eligible for various types of pre-disaster and post-disaster community aid and grant programs from the Federal Emergency Management Agency (FEMA). Unlike an emergency response plan, a hazard mitigation plan focuses on identifying mitigation actions that can be taken before disasters occur to reduce the level of property damage, personal injury, and community disruption that might otherwise result. It is based on the premise that many of the

losses that could result from hazards could be avoided, prevented, or minimized through better planning, construction, design, and education.

In April 2017, the County adopted the most recent Sonoma County Hazard Mitigation Plan (Hazard Mitigation Plan) to help reduce the level of injury and property damage resulting from hazards including seismic hazards, landslides, floods, wildfires, and hazards resulting from climate change. The Hazard Mitigation Plan also addresses erosion, erosion is the loosening and transportation of rock and soil debris by wind, rain, or other running water or the gradual wearing away of the upper layers of the earth, sea-level rise, and tsunami, as secondary hazards. The Hazard Mitigation Plan includes hazard maps and a five-year implementation plan. The implementation plan identifies community policies, actions, and tools to reduce the public's exposure to hazards, minimize potential property damage and disruption, and reduce the costs of disaster relief. The Hazard Mitigation Plan implementation plan as amended is incorporated by reference into this Public Safety Element to ensure consistency as it is updated and revised every five years.

1.3.3 Sonoma County Climate Action Plan

Sonoma County has long recognized the need for local action to help meet the global challenge of climate change. In July 2016 the Regional Climate Protection Authority adopted the *Climate Action Plan 2020 and Beyond (Climate Action Plan 2020).* The Climate Action Plan 2020 recommendations will be implemented by local jurisdictions.

The Climate Action Plan 2020 is the outcome of a coordinated, multi-partner planning effort to reduce greenhouse gas emissions in Sonoma County. It builds on previous efforts, and provides a framework for implementing measures to reduce greenhouse gas emissions adopted by the County and the nine cities.

The Climate Action Plan 2020 contain regional and project-level measures to support the County's effort to achieve the reaffirmed statewide reduction targets of 25 percent below 1990 levels by 2020, with long- term goals of 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. It includes a backcast of 1990 greenhouse emissions and a robust inventory of 2010 levels.

1.3.4 California Environmental Quality Act

Under the California Environmental Quality Act (CEQA), prior to any action on a project subject to CEQA, the lead agency which is the public agency that has the principal responsibility for carrying out or approving a project, must prepare an analysis of the impacts of the proposed project. The analysis must include an assessment of whether it

would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; landslide; flooding in the 100-year floodplain; inundation by a seiche, tsunami, or mudflow; or hazardous materials. A seiche is a standing wave that oscillates in a lake as a result of seismic or atmospheric disturbances creating huge fluctuations of water levels. A seiche has to occur in an enclosed body of water such as a lake, bay or gulf. The hundreds year flood is the magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any given year.

The assessment must identify potential mitigation measures and project revisions or alternatives which may be considered to reduce the risks from such hazards to a level of less than significant. Most development projects in the Local Coastal Zone are subject to analysis under CEQA.

1.3.5 Other Laws and Regulations

A number of other state and federal laws and regulations complement the Local Coastal Plan's public safety intent by establishing siting constraints, study requirements, and building standards for specific types of development such as essential services buildings, dams, schools, hospitals, power plants, pipeline and transmission lines, and water supply and water treatment facilities. In addition, new construction in the Coastal Zone must comply with and meet the applicable standards of the California and Sonoma County Building Codes to increase resistance to or reduce risks from seismic events, geologic hazards, flooding, fires, and hazardous materials. The County will continue to apply and enforce all applicable design and siting requirements established by state and County Codes to increase the safety and disaster resistance of new or existing buildings whether private or public through the permit review process.

1.4 Scope and Organization

Goals, objectives, and policies applicable to risks from all general types of hazards are in Section 2, followed by sections on the specific hazard types – Geologic Hazards (Section 3), Flood and Inundation Hazards (Section 4), Sea Level Rise Hazards (Section 5), Wildland Fire Hazards (Section 6), and Hazardous Materials (Section 7). Each of these sections summarizes the extent of the hazard and the risk to public safety and property; and includes goals, objectives, and policies to reduce the exposure of persons and property to the hazard. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County

initiatives, referred to as "Other Initiatives," that support public safety and promote inter-agency and community collaboration.

1.5 Determination of Acceptable Risks

Acceptable levels of risk are based upon the nature of each hazard, the frequency of exposure, the number of persons exposed, and the potential damage. The County is not able to guarantee that any particular development will not, at some time in the future, be adversely affected by the hazards identified in this Element because such hazards, by their nature, defy precise prediction. Acceptable levels of risk may vary depending on the type of hazard, degree of certainty of hazard exposure, and state of existing development. Acceptable risk can only be determined after all effort has been made to reduce the risk and does not include development that increases known risks to human health and safety in identified hazard areas.

Maps included in the Public Safety element are for illustrative purposes only and are not a suitable basis for parcel-specific decisions. The map scale and reproduction methods limit precision in physical features displayed. The parcels boundaries and physical features are not intended to represent surveyed data. Site-specific studies are required to draw parcel-specific conclusions.

Although there are significant regulatory requirements and controls to regulate the location and design of new construction or development and minimize the hazard risks to acceptable levels, it may not be possible to reach the same level of hazard avoidance or risk reduction for existing development, which has already been located in hazard areas or constructed prior to the enactment of applicable building and zoning codes designed to minimize hazard risk and vulnerability. Additionally, many sites within the coastal zone are subject to potential risks for multiple hazards, as such policies for all of the applicable hazards must be addressed, with the most restrictive or specific regulation applied.

Even with adequate planning, regulation, and mitigation, natural hazards and disasters cannot be prevented from occurring and the risk of impacts from such events cannot be eliminated altogether. Natural hazards and disasters will continue to occur. Although the County will take actions to guide future development, considerable development has already occurred in areas subject to hazards. The County will work to increase public and private disaster preparedness and response and plan accordingly to reduce the potential for harm and damage from such events, however, the potential for significant harm and damage arising from natural hazards and disasters remains.

Existing development and future development potential of parcels may be lost as a result of natural hazards and disasters. There is no obligation on the part of the County to compensate property owners for their losses or to allow rebuilding and development on parcels which cannot meet current building and zoning standards.

2. GENERAL HAZARDS POLICY

GOAL C-PS-1: **Prevent unnecessary exposure of people and property to risks of injury or damage from earthquake, geologic, flood, inundation, and wildland fire hazards and hazardous materials.**

Objective C-PS-1.1: Comply with all applicable land use, building, and development regulations codified by federal, state, and local government to minimize risks of personal injury and property damage from hazard events.

Objective C-PS-1.2: Make fully-informed decisions on land use, development, and real estate regarding hazards through the use and dissemination of the best available science, information, and analysis.

Objective C-PS-1.3: Implement pre-disaster mitigation actions identified in the most recent California Governor's Office of Emergency Services approved Hazard Mitigation Plan implementation plan to help reduce the level of risk and the level of personal injury and property damage that could result from hazards.

Objective C-PS-1.4: Minimize public costs for development in high hazard areas that are associates with high costs for public services and disaster relief.

The following policies, in addition to those in this Public Safety Element and the Open Space and Resource Conservation, Water Resources, and Land Use Elements shall be used to achieve these objectives:

Policy C-PS-1a: Continue to apply, update, and enforce all applicable design, siting, and construction requirements and standards established by federal, state, and the County government to increase the safety and natural disaster resistance, resilience, and accommodation of new or existing public or private buildings through the permit review process. Where a parcel is subject to multiple hazards the most restrictive or specific regulation will be applied. **(New/GP2020)**

Policy C-PS-1b: Make natural hazard maps, data, and information available for public use and review at the County permit office and County website. Provide maps, data, and information in order to guide land use, development, and real estate decisions that

affect risks to public safety and property from natural hazards. Post notices at the offices of the Sonoma County Recorder, Sonoma County Assessor, and Permit Sonoma that identify the location of these maps, data, and information.

Update hazard data as necessary to reflect any changes made by various responsible agencies including, but not limited to, the FEMA, United States Geological Survey (USGS), California Geologic Survey and /or California State Geologist, National Oceanic and Atmospheric Administration (NOAA), and California Department of Forestry and Fire Protection (CAL FIRE). In the event of conflicting information among these sources, Permit Sonoma staff shall determine which is most appropriate. Provide locally generated hazard data to these agencies involved in hazard mapping. **(New/GP2020)**

Policy C-PS-1c: Use and consider available natural hazard data, maps, analyses, and impact and vulnerability assessments from appropriate agencies; and require preparation of additional site-specific or project-specific hazards analyses when necessary to ensure full consideration of risks from natural hazards in the design and development review processes. **(New/GP2020)**

Policy C-PS-1d: Where new hazard data or information, analyses, or maps become available as a result of agency research, database updates, or more detailed site specific analyses, the best available science and information shall be used and considered consistent with the Local Coastal Plan even if it departs from the hazard maps and policies adopted with the Local Coastal Plan. **(New)**

Policy C-PS-1e: Where there is a significant factual question about whether a particular development has sufficiently mitigated the potential risks from natural hazards to an acceptable level, the applicant shall provide evidence that the development would not cause damage or substantial adverse impacts on coastal resources. If the development is consistent with the Local Coastal Plan, and the property owner wishes to proceed in the face of a factual question regarding risks from natural hazards, the property owner shall provide indemnification to the County, insurance or other security, and a recorded notice which will protect the interests of the County and notify future purchasers of the property of the potential problem. **(New/GP2020)**

Policy C-PS-1f: Property owners shall be responsible for conducting their own research, and determining, and understanding the vulnerabilities and risks to their real estate investments from hazard events. Property owners shall be encouraged to develop an emergency response plan and mitigation plan to address those hazards before emergency conditions occur, and to carry their own hazards insurance. In developing such plans, property owners shall be encouraged to consider the FEMA's National Flood

Insurance Program and Community Hazard Rating System, as well as the State of California Multi-Hazard Mitigation Plan. **(New)**

Policy C-PS-1g: Where existing development is located in a natural hazard area and is destroyed by a hazard event, there is no inherent public obligation to allow redevelopment or rebuilding which cannot meet current health and safety Codes and standards or to compensate the owner for the loss of their investment. **(New)**

Policy C-PS-1h: Land divisions, shall be prohibited unless all proposed parcels can be demonstrated to be safe from flooding, erosion, fire and geologic hazards; would not require the construction of shoreline protective devices; and can accommodate a safe, all-weather access. **(New)**

Policy C-PS-1i: Facilitate response and recovery from natural hazard events by improving the ability of public infrastructure and facilities to withstand and remain functional after hazard events. Where necessary, retrofit, replace, or relocate existing infrastructure and facilities to avoid unreasonable risks from hazards. **(New)**

3. GEOLOGIC HAZARDS POLICY

3.1 Background

Geologic hazards result from large scale seismic events and localized occurrences of expansive soils, slope instability, landslides, mudslides, subsidence, and coastal bluff erosion.

3.1.1 Seismic Hazards

Earthquakes are usually caused by sudden movement along geologic faults. Sonoma County has four active or potentially active earthquake faults within its boundaries identified by the state Alquist-Priolo Earthquake Fault Maps. Known geologic faults, including the San Andreas Fault system, within the 10 SubAreas of the Coastal Zone are shown on **Figures C-PS-1a-c**.

While a seismic event along any fault in the county could result in noticeable impacts along the Sonoma County coast, a seismic event along the Northern Segment of the San Andreas Fault system would be expected to have the greatest potential impact in the Coastal Zone due to the potential for surface fault rupture and violent ground shaking. As shown on Figures C-PS-1a-c, this fault generally lies off the west coast of the County. The fault crosses land at Bodega Bay, passes offshore, then crosses land again at Fort Ross running northward, through the Sea Ranch community, and continuing north into Mendocino County. Analysis of seismic data indicates that 8.5 magnitude earthquakes can

be expected along the San Andreas Fault, and that earthquakes of 8.0 or more along this fault can be expected every 200 to 400 years (Prentice, 1989).

The adverse effects of earthquakes result from the physical effects of ground shaking, surface fault rupture, liquefaction, and earthquake-induced landslides; or secondary effects such as fires, tsunamis, seiches, dam failure, and hazardous materials releases. Each of these effects is briefly discussed below.

Ground shaking. Ground shaking from earthquakes affects the greatest number of people and can cause the most damage of any geologic hazard. According to the *California Hazard Mitigation Plan*, damage due to ground shaking produces over 98 percent of all building losses in a typical earthquake. During an earthquake, the ground can shake for a few seconds or over a minute. The amount (strength and duration) of ground shaking is affected by many factors. Distance from the earthquake epicenter, the point on Earth's surface directly above the focus point of where the earthquake is originating underground, is the most significant factor. However, geologic conditions and the direction, magnitude, and depth of the fault rupture are also critical. Shaking, particularly horizontal shaking, results in the most earthquake damage because structures often have inadequate resistance to this type of motion. Unconsolidated and poorly consolidated alluvium, which is detrital materials such as clay, silt, sand, or gravel that has been deposited by running water, and terrace deposits will undergo greater ground shaking than consolidated bedrock formations. Unstable slopes also may undergo greater ground shaking, increasing the risk of landslides after an earthquake event. Figures C-PS-1a-c show ground shaking hazard potential on the Sonoma County coast based on maps produced by the California Geological Survey.

Ground Failure. Strong ground shaking during earthquakes can also result in ground failure. This risk increases with earthquake magnitude and ground shaking intensity but is also influenced by other factors such as slope, ground moisture, and the type and content of bedrock. Ground shaking on gentle and moderate slopes of poorly consolidated surface deposits can result in differential compaction, settlement and liquefaction. Liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress such as shaking during an earthquake or other sudden change in stress condition, in which material that is ordinarily a solid behaves like a liquid. Damage from ground shaking can be increased by liquefaction and landslides. Liquefaction changes water-saturated soil to a semi-liquid state, removing support from foundations and causing buildings to sink. The most likely areas to experience liquefaction are valleys and tidal marshes with high water tables and sandy soils. Landslides, mudflows, and rock falls can result from

ground shaking and are most common on steep slopes but may also occur in areas of gentle slopes due to liquefaction of subsurface materials.

Ground Displacement along Faults. Surface fault ruptures can result from large magnitude earthquakes. Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Structures located within the fault rupture zone are subjected to excessive force. Most structures are not designed to withstand such large deformations and experience major damage. Pipelines crossing the fault zones can also be damaged by ground failure. During the 1906 earthquake, horizontal displacement along the San Andreas Fault averaged 15 feet in Sonoma County. Hazards from surface fault ruptures are generally avoided or minimized by limiting development in active fault zones in compliance with the Alquist-Priolo Earthquake Fault Zoning Act discussed in Section 3 (Geologic Hazards, Regulatory Setting).

Secondary Effects of Earthquakes. Earthquakes can result in additional property damage and human injury from secondary effects. Some earthquakes can result in large tsunami waves along the ocean shoreline or seiches on lakes which can cause damage by their force and by inundation of low-lying developed areas adjacent to the shoreline. Tsunamis and seiches are discussed in greater detail in Section 4 (Flood and Inundation Hazards). In addition, damage to utilities and other public facilities can produce disastrous secondary effects. Much of the destruction from the 1906 earthquake in Sonoma County was from fires that could not be put out due to broken water lines, damaged roads, and lack of communication. In addition, seismic events could trigger slope failure resulting in landslides which block or damage roads and infrastructure. Risks resulting from the secondary effects of earthquakes can be reduced by various methods, but locating essential facilities and dense populations within high hazard areas increase the potential for damage.

3.1.2 Other Geologic Hazards

The Sonoma County coast has other geologic hazards in addition to those arising from seismic events, which include expansive soils; slope instability, which can result in landslides; and coastal bluff erosion. Erosion is the loosening and transportation of rock and soil debris by wind, rain, or other running water or the gradual wearing away of the upper layers of the earth. Each of these hazards is discussed below. However, unlike other coastal communities, Sonoma County does not experience significant beach sand erosion issues.

Expansive Soils. Buildings, utilities, and roads can be damaged by underlying soils rich in clay that swell each winter and shrink each summer depending on rainfall. This is

a less obvious geologic hazard than earthquakes or landslides, but the gradual cracking, settling, and weakening of buildings over time could be significant.

Slope Instability. Slope instability includes landslides and other shallow soil slippage events that involve various forms of mass earth and rock movement downslope. The most common type of slope instability in Sonoma County is landslides. Landslide potential is generally greater on areas of steeper slope and can be triggered by heavy rainfall; earthquakes; road cuts; and construction activities such as grading and filling, placing culverts, and installing septic tanks. Logging, grazing, and removing vegetation may also adversely affect slope stability. Landslides and shallow soil slippage are prevalent in the Coastal Zone. **Figures C-PS-2a-c** show the areas on the Sonoma County coast subject to slope instability.

Landslides and coastal bluff erosion play a role in threatening development along the Sonoma County coastline. Development of homes, septic systems, landscape irrigation, and drainage as well as heavy rainfall and tidal action impact the rate of coastal erosion. Intensive grazing, tilling of slopes, and road construction have resulted in erosion on the Sonoma County coast through shallow slippage, gullying, sheet wash, and wind action. Ongoing coastal erosion has contributed greatly to historic sedimentation of Bodega Harbor, the Estero Americano, and other water bodies. State Highway 1 on the North Coast experiences landslides and erosion to the extent that the road is frequently closed for repair.

Coastal Bluff Erosion. According to the National Academy of Sciences (2012), most of the damage along the California coast is caused by storms, particularly by the confluence of large waves, storm surges, and high astronomical tides during a strong El Niño event; and a rising sea level would magnify the impacts of high waves and storm surges on the coastline. Storms and sea level rise are causing California coastal bluffs, beaches, and dunes to retreat at rates from a few centimeters to several meters per year. Coastal bluff erosion could increase abruptly from an episodic event such as a tsunami or an unusually severe winter storm. The National Academy of Sciences (2012) projects that California coastal bluffs could retreat more than 100 feet by 2100.

While the entire Sonoma Coast is subject to high rates of erosion and frequent landslides, the greatest hazards located between Bodega Bay and the Russian River. This section of the coast is characterized by a broad coastal prairie terminating in a steep bluff that drops 50 to 100 feet down to narrow rocky beaches. In the early 1900's the Bodega-Jenner Highway, later to become Highway 1, was constructed along the western edge of the coastal prairie. Beginning in the late 1920's, hundreds of small parcels were created in the land west of Highway 1 and sold as vacation home sites.

The majority of this development occurred before passage of the Coastal Act, with a substantial number of homes constructed before Sonoma County first required building permits in 1963.

Geologically, the coastal prairie is a thick layer of Franciscan mélange, which is highly fractured, easily erodible, and unstable. The combination of weak bedrock geology, high rainfall, and direct exposure to storm waves generates one of the highest rates of shoreline retreat in California. As bluff retreat began to threaten existing development west of Highway 1, property owners modified drainage and armored the shoreline, which failed to protect homes and actually accelerated erosion rates.

As of 2019, the greatest hazards from coastal erosion are at Gleason Beach, north of Scotty Creek. When these lots between Highway 1 and the ocean were created in 1927, the average lot was 300 feet deep. Twenty-one homes were developed on these lots. Over time, the ocean eroded the shoreline and finally reached the homes during the winter of 1997-1998, when development was severely damaged by storm wave run up. By February 2006, bluff retreat had reached the developed portions of the lots and five homes partially collapsed and were demolished. By the spring of 2017, only seven houses remained, and the edge of the bluff reached the fog line on Highway 1. Recognizing that previous attempts to stabilize Highway 1 were unsuccessful, Caltrans is now planning to realign this section of Highway 1 approximately 450 feet inland from the current location. The strategy of planned retreat, rather than hardening shoreline protections, will likely be applied more frequently as sea level rise, climate change, and erosion continue to threaten development west of Highway 1. In addition to the risk to existing development, public safety for people accessing the beach would also be at risk from coastal bluff erosion. If official or prescriptive paths or trails to the beach are eroded, people may decide to use unofficial or non-prescriptive routes over unstable bluffs to reach the beach.

Avoidance is the preferred method for minimizing the risk to and vulnerability of development from coastal bluff erosion. In cases where existing development is threatened, the first priority should be to evaluate the feasibility of relocating the development. Only when all other options are deemed infeasible should shoreline protection structures be considered. By appropriately siting new development, the need for a seawall, revetment, or other shoreline protection structure or alteration to the coastal bluff may be avoided.

If a bluff is determined to be stable, the setback from the top of the bluff should be calculated by the bluff retreat times the life expectancy of the house or building to be protected. If the bluff is determined to be unstable, a buffer should be added as a

safety factor to the setback from the top of the bluff. The buffer should be calculated through a site-specific quantitative slope stability analysis that incorporates historic data. However, due to the unpredictability of episodic erosion, a minimum buffer from the setback from the top of the bluff would be appropriate in all cases.

For purposes of this Local Coastal Plan, the terms bluff, bluff edge, bluff top, embankment, and blufftop redevelopment all have specific meanings, which are defined below and in the Glossary.

> ***Bluff*:** A high bank or bold headland with a broad, precipitous, sometimes rounded cliff face overlooking a plain or body of water. A bluff may consist of a steep cliff face below and a more sloping upper bluff above.
>
> ***Bluff Edge*:** The line of intersection between the steeply sloping bluff face and the flat or more gently sloping bluff top; or the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the bluff is rounded away from the face of the bluff as a result of erosion processes related to the presence of the steep bluff face, the bluff line or edge shall be defined as that point nearest the bluff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the bluff. In a case where there is a step-like feature at the top of the bluff face, the landward edge of the topmost riser shall be taken to be the bluff edge. Bluff edges typically retreat landward due to coastal erosion, landslides, development of gullies, or by grading (cut). In areas where the bluff top or bluff face has been cut or notched by grading, the bluff edge shall be the landward most position of either the current or historic bluff edge. In areas where fill has been placed near or over the historic bluff edge, the original natural bluff edge, even if buried beneath fill, shall be taken to be the bluff edge.
>
> ***Bluff Top*:** The upper surface of a bluff or cliff.
>
> ***Blufftop Redevelopment*:** Structures located between the sea and the inland extent of the sea and the first public road paralleling the sea (or lagoon) that consist of additions, exterior or interior renovations, or demolition of an existing blufftop home or other principal structure which result in:
>
> (1) Alteration of 50 percent or more of an existing structure, including but not limited to, alteration of 50 percent or more of the roof, foundation, exterior walls, interior load-bearing walls, or a combination of both types of walls, or a 50 percent increase floor area; or
>
> (2) Demolition, renovation or replacement of less than 50 percent of an existing structure where the proposed remodel would result in cumulative alterations exceeding 50 percent or more of the existing structure taking into consideration previous additions approved on or after the effective date of the Coastal Act (January 1, 1977).

3.2 Regulatory Setting

3.2.1 Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture by preventing the construction of buildings used for human occupancy on the surface trace of active faults. The Act does not address hazards associated with earthquakes such as ground shaking, landslides, or liquefaction.

Alquist-Priolo Earthquake Fault Zoning Act requires counties to designate Earthquake Fault Zones where movement of the earth's surface has taken place during the last 11,000 years; and to require a geologic report for projects proposed within these zones. The State Geologist has identified active faults and mapped Earthquake Fault Zones around the surface traces of the faults. The maps are provided to local agencies which must regulate development projects within the Earthquake Fault Zones. Figures C-PS-1a-c show the San Andreas Earthquake Fault Zones along the Sonoma County coast.

3.2.2 Seismic Hazards Mapping Act

The 1991 Seismic Hazards Mapping Act seeks to protect the public from the hazards caused by earthquakes. The Act requires the State Geologist to delineate and designate areas subject to strong ground shaking, landslides, and liquefaction as Seismic Hazard Zones; and for the California Geological Survey to prepare maps of these Hazard Zones. Counties must regulate certain types of development projects and withhold the development permits for sites within Seismic Hazard Zones until the geologic and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into the project plans. Counties must also take these Seismic Hazard Zones into account when adopting and revising land use planning and permitting ordinances and reviewing building permits. California Civil Code Sections 1103-1103.14 require disclosure through a Natural Hazard Disclosure Statement in real estate transactions if the property is located in an Earthquake Fault Zone or Seismic Hazard Zone.

3.2.3 Other Seismic Safety Regulations

In addition to the above, several other seismic safety regulations have been developed over the last century. A summary of these regulations is provided below:

(1) The 1933 Field Act and Other School Seismic Safety Legislation requires thorough reviews of plans, strict inspections, and quality control standards for school construction.

(2) The 1968 Geologist and Geophysicist Act requires geologic or seismic assessments to be carried out by qualified geologists and geophysicists.

(3) The 1973 Alfred E. Alquist Hospital Seismic Safety Act requires all hospitals built after 1973 to be built to higher seismic standards so they can be reoccupied and remain functional after major earthquakes.

(4) The 1979 Beverly Act authorizes creation of a Geologic Hazard Abatement District (GHAD) as a means to reduce geotechnical problems associated with development in geologically active areas such as erosion and failure of coastal bluffs. A GHAD is an independent public entity (public agency) formed as a Board of Directors which oversees the prevention, mitigation, and abatement of geologic hazards. Funding of a GHAD is through supplemental property tax assessments. A GHAD was proposed for shoreline protection and bluff stabilization for the Gleason Beach community in 2003, but was not adopted.

(5) The 1986 Unreinforced Masonry Building Act requires local jurisdictions to address the life safety risks posed by Unreinforced Masonry (URM) buildings that were constructed before the adoption of seismic-resistant building codes.

(6) The 1986 Essential Services Building Seismic Safety Act requires that essential services buildings be designed and constructed to be capable of providing essential services to the public after a disaster.

3.2.4 Shoreline Protection Structures

Seawalls and other shoreline protection structures are hardened structures installed along the coast which provide a physical barrier that armors and stabilizes the shoreline landward of the structure from the erosive forces of wave action. Shoreline protection structures are typically installed by private landowners or local, state, and federal governments in order to provide stabilization and protection of costal development from floods, storms, and sea level rise. The use of shoreline protection structures is acceptable in some circumstances to serve coastal-dependent uses or to protect existing structures or public beaches when designed to eliminate or mitigate adverse impacts.

Although shoreline protection structures can be used to protect coastal development they are not appropriate to use in most circumstances due to the large amount of adverse environmental impacts that they generate. Shoreline protection structures prevent beaches from migrating inland and induce erosion in adjacent unprotected shoreline. These structures also have adverse impacts on recreational beach uses, scenic resources, and the natural supply of sand to shoreline areas. Shoreline protection structures also have a reality short structural lifespan relative to the high cost of installing and removing the structures. Despite the significant cost of installation, there are instances where the performance of such structures has been inadequate and the

erosion and damage they were installed to prevent or reduce still occurs. Remnants of failed shoreline protection structures and collapsed private buildings degrade the natural beauty of the Sonoma County coastline. Clean-up of these structures on the beach can pose a problem due to the high cost of funding a full clean-up or if equipment access to the beach is limited.

Section 30235 of the California Coastal Act allows seawalls and other shoreline protection structures only to protect existing development or public beaches or to serve coastal-dependent uses, and only in certain situations. Section 30610 allows reconstruction of a shoreline protection structure destroyed by a disaster without a coastal permit under certain conditions, including where the replacement structure is no more than 10 percent larger than the destroyed structure. Section 30611 allows, in the case of a disaster or other emergency, work to protect life and public property not including permanent erection of structures, valued at more than $25,000 without a permit.

GOAL C-PS-2: **Prevent unnecessary exposure of people and property to risks of injury or damage from earthquakes, landslides, coastal erosion, and other geologic hazards.**

Objective C-PS-2.1: Locate and design new development to reduce the risks of human injury and property damage from existing and anticipated geologic hazards, including coastal bluff erosion, to acceptable levels.

Objective C-PS-2.2: Minimize the risks of human injury and property damage from existing and anticipated geologic hazards.

Objective C-PS-2.3: Minimize the need to construct seawalls or other shoreline protection structures to reduce impacts to natural shoreline processes, cultural and biological resources, views, and coastal access.

The following policies, in addition to those in this Public Safety Element and the Open Space and Resource Conservation, Water Resources, and Land Use Elements shall be used to achieve these objectives:

Policy C-PS-2a: Design and construct all structures for human occupancy, including mobile homes, in accordance with Zone 4 standards of the Uniform Building Code. **(Existing LCP)**

Policy C-PS-2b: Enforce the geologic provisions of Chapter 70 of the Uniform Building Code. **(Existing LCP)**

Policy C-PS-2c: Encourage strong enforcement of seismic safety requirements and regulations for design and construction of buildings and facilities subject to state and

federal standards, such as bridges, dams, power plants, hospitals, schools, and essential services buildings. **(GP2020)**

Policy C-PS-2d: Structures intended for human occupancy as defined in the Alquist-Priolo Special Studies Zones Act and related Administrative Code provisions shall be prohibited within 50 feet of the surface trace of any fault in Earthquake Fault Zones. **(GP2020)**

Policy C-PS-2e: Encourage the consolidation of lots and new structures in high hazard areas. **(Existing LCP Revised)**

Policy C-PS-2f: A site-specific geologic hazards report prepared by a licensed Geotechnical Engineer, Engineering Geologist, or Geophysicist shall be required for development projects proposed within Geologic Hazard Areas, as shown in **Figures C-PS-1a-cand C-PS-2a-c**. A geologic hazards report shall also be prepared where a site evaluation conducted for a Coastal Permit, building permit or grading permit application has identified that such a report is required. The geologic hazards report shall include the following information:

(a) Description of the types and locations of the geologic hazards on the project site.

(b) Analyses of the risks of human injury and property damage from geologic hazards associated with the proposed development, including but not limited to site preparation, grading, installation of septic systems, installation of drainage and road improvements, construction of foundations, and construction of buildings and structures.

(c) Design siting and construction mitigation measures for the proposed development to minimize the potential for collapse; debris falling on occupants or pedestrians; failure of critical mechanical or electrical systems; releases of large quantities of hazardous or toxic materials; and substantial economic loss from geologic hazards.

(d) Certification from the Geotechnical Engineer, Engineering Geologist, or Geophysicist that the risks of human injury and property damage from geologic hazards associated with the proposed development have been mitigated to an acceptable level. **(New)**

Policy PS-2g: As a condition of coastal permit approval for development in mapped Hazard Areas, require the applicant to record a document exempting the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit during the structure's economic life are prohibited. **(New)**

Policy C-PS-2h: Incorporate measures to mitigate to an acceptable level identified geologic hazards for all County road, public facility, and other projects. **(GP2020)**

Policy C-PS-2i: Applications for new development or redevelopment on coastal bluff property shall be required to include a site-specific coastal bluff erosion hazards report from a licensed Geotechnical Engineer, Engineering Geologist, or Geophysicist that establishes a geologic setback line for proposed new temporary (e.g., gazebos and portable spas) and permanent (e.g., roads, driveways, water lines, drainage improvements, and septic systems and leachfields) structures and infrastructure. This setback shall be no less than 100 feet and shall establish where on the bluff top stability can reasonably be assured for the economic life of the development (no less than 100 years). All new structures for human occupancy and infrastructure located on a bluff top shall be setback to ensure that it will not be endangered by coastal bluff erosion, retreat, and collapse; and thereby avoid the need for shoreline protection devices during the economic life of the development. The effect of any existing shoreline protective devices shall not be factored into the required stability analysis.

The coastal bluff erosion hazards report shall take the following factors into account in establishment of the geologic setback line:

(1) Proposed extent of grading and site preparation.

(2) Proposed plans for construction of roads, driveways, foundations, water lines, drainage improvements, and septic systems and leachfields.

(3) Maximum coastal bluff retreat projected to occur within the economic life of the development (100 years). The projected coastal bluff retreat shall be calculated considering the specific geologic and hydrologic conditions on the site; historic coastal bluff retreat data; projections for future sea level rise according to the most up-to-date science; and existing and projections for changes in storm frequency, magnitude, and duration due to climate change. **(New)**

Policy C-PS-2j: Where existing development is threatened by coastal bluff erosion, the first priority shall be to evaluate the feasibility of relocating the development. The second priority shall be to consider the feasibility of less environmentally damaging alternatives than shoreline protection structures. Only when all other options are deemed infeasible should shoreline protection structures be considered. **(New)**

Policy C-PS-2k: Where, as a result of coastal erosion, it is no longer feasible based on size and environmental conditions for a parcel to meet the minimum requirements for development under the Sonoma County Code, the development potential of the parcel may be considered lost due to the forces of nature. There shall be no obligation on the part of the County to restore the development potential of such parcels through Code variances, lot line adjustments, transfer of development rights, or other means. **(New)**

Policy C-PS-2l: Avoid shoreline protection device construction, reconstruction, expansion, alteration, and/or replacement unless determined necessary by and compliant with California Coastal Commission and County of Sonoma Standards (**Appendix F**). **(New)**

Policy C-PS-2m: A shoreline protection device shall only be authorized for removal when the protected structure or asset has been removed, or a more appropriate protection option has been identified. In the case of coastal redevelopment, removal of the authorized shoreline protection device shall be required prior to construction of the redeveloped structure. **(New)**

4. FLOOD AND INUNDATION HAZARDS POLICY

4.1 Background

Flooding along rivers and creeks on the Sonoma County coast is a natural, annual phenomenon. Many smaller creeks and drainages along the coast drain smaller areas directly into the ocean without causing the flooding problems that occur on larger watershed basins or river systems. Floods on small streams usually peak and recede quickly, while floods on larger systems like the lower Russian River may not peak for two days or more after the start of a storm and may exceed flood stage for four days or more. In larger drainage basins, streams overflow banks when runoff from the watershed exceeds the capacity of the stream channel to carry the flow. Because the Coastal Zone is a narrow band of land near the coast, most of the flood waters draining to the ocean originate from inland areas outside the Coastal Zone.

Flooding can move, destroy, or damage buildings, roads, infrastructure, and personal property, not only by inundation but also by the force of flowing waters. Flood damage may weaken building materials and increase mildew, mold, bacteria and other disease vectors. Floods can result in human injury and pose a threat to life. Floods can wash away soil, erode banks, destroy crops, and transport loose objects and flood debris downstream; and may end up degrading Sonoma County beaches or offshore marine habitats.

Although floods are primarily associated with the overflow of rivers and creeks, damage from flooding and inundation can also result from dam failure, tsunamis, seiches, ocean surges and higher waves during storms, and sea level rise. Localized flooding can also occur from blocked or undersized storm water conveyance channels and infrastructure.

4.1.1 Stream and River Flooding

Flooding is most often associated with an overflowing stream or river. The floodplain is the area adjacent to the watercourse that is subject to recurring inundation from floods.

The magnitude of floods, can be described in terms of flow (cubic feet per second), elevation (height above a defined datum), or by the areal extent of flood water inundation. However, the more frequent and universal way of describing flood magnitudes is by their projected recurrence level - the bigger the flood, the more years that would typically be expected to pass statistically before it reoccurs. For instance, a flood level that would occur on average once every two years is referred to as the 2-year flood, and it would statistically have a 50 percent chance of occurring in any given year. A 10-year flood has a 10 percent chance of occurrence, a 50-year flood has a 2 percent chance, a 100-year flood has a 1 percent chance, and a 500-year flood has a 0.2 percent chance of occurring in any given year. Although the recurrence level is based on statistical averages, the actual occurrence of flood events varies and could occur at shorter intervals or even within the same year.

Storms are described in the same way - as the storm event of such a magnitude (amount of rainfall during a specified length of time) that it has a certain percent chance of occurring in any given year. For instance, the 100-year flood is the storm event of such a magnitude that it has a 1 percent chance of occurring in any given year. Similarly, the 10-year storm is a storm event of such a magnitude that it has a 10 percent probability of occurring in any given year.

Floodplains or flood zones are described with reference to the associated flood – as the areal extent of land that would be covered by the flood event of such a magnitude that it has a certain percent chance of occurring in any given year. For instance, the 100-year floodplain is the area that would be covered by the 100-year flood.

The FEMA and Federal Insurance Administration have assessed flood hazards for most major streams in Sonoma County. These assessments are periodically updated to reflect new data from flood studies and actual flood events. The FEMA maps show the 100-year floodplain and are commonly used as the primary source of flooding information for planning and development review and floodplain management. Where the subject river or stream has been studied by detailed hydrologic and hydraulic methods, FEMA may also designate a floodway within the 100-year floodplain. According to FEMA, the floodway is "where the water is likely to be deepest and fastest - the area of the floodplain that should be reserved (kept free of obstructions and development) to allow floodwaters to move downstream." The floodway is generally considered to be the area where the flood risk is highest and the vulnerability of development is greatest.

Currently the Russian River is the only river on the Sonoma County coast for which the 100-year flood plain has been mapped by FEMA, shown on **Figures C-PS-3f-ii. 3g-ii, 3h-ii, and3j-ii**. It shows the land area adjacent to a watercourse, drainage way, or creek which has been or may be covered by floodwaters. The boundaries of a flood plain are typically described in terms of the magnitude of a flood event such as the "100 year flood plain". Portions of the older unincorporated communities of Duncans Mills and Jenner lie within the 100-year flood zone of the Russian River in the Coastal Zone.

Within the area covered by the 100-year floodplain of the Russian River, the risk of human injury and property damage from flooding increases with the topographic depth, frequency of flooding, and force of the flood current. Properties within the floodway (approximate 10-year floodplain) would be subject to a greater depth and frequency of flooding and greater magnitude of cross currents than properties within the 25-year or 50-year floodplains. Development is prohibited within the river's floodway because the risk of human injury and property damage in this area is unacceptable.

The greatest threat to public safety and property exists where development is located in areas subject to recurring flooding. The Russian River has the highest frequency of flooding and greatest flood hazards in the Coastal Zone due to the size of its drainage basin and the amount of historic development in the floodplain. The Coastal Zone contains only about 237 of the 1,485 square miles (16 percent) of the Russian River Watershed. Therefore, most of the flood waters from the Russian River draining to the ocean originate from inland areas outside the Coastal Zone.

4.1.2 Dam Failure Inundation Zones

Flooding can also result from dam failure. The area of potential inundation resulting from the failure of a specific dam is designated as the Dam Failure Inundation Zone for that dam. The current mapping of dam failure inundation zones in the Coastal Zone shows that the areas which could be inundated by dam failure are already included in the 100-year flood zone. There are no major dams located within the Coastal Zone.

4.1.3 Coastal Flooding and Storm Surge

Areas designated as the VE Zone on FEMA's Flood Insurance Rate Map (FIRM) are considered to be in a Coastal High Hazard Area subject to high velocity waters from coastal flooding, tidal inundation, and tsunamis. However, FEMA has not designated all potential Coastal High Hazard Areas, and is in the process of updating its mapping of these areas.

4.1.4 Tsunamis

A tsunami is a series of traveling ocean waves, generated by a distant or near-shore undersea earthquake or landslide, that decrease in speed and increase in height as they enter shallow coastal waters. If these waves are much larger than usual, they can become a threat to human life and property by the force of the wave as well as by inundation. Following arrival of the first wave, subsequent waves may increase in height and arrive minutes to hours later. Factors influencing the size and speed of a tsunami include the source and magnitude of the triggering event, water depth, offshore topography, onshore topography, and coastline shape.

The National Oceanic and Atmospheric Administration (NOAA) heads the National Tsunami Mitigation Program, a federal and multi-state initiative to address tsunami hazards in the United States. The Program develops tsunami inundation and evacuation maps for at- risk communities. NOAA, the California Emergency Management Agency (CalEMA), California Geological Survey (CGS), and University of Southern California have conducted systematic analyses of all historic and possible tsunami hazards along the coast of California for the purpose of mapping tsunami run-up zones from nearshore events in these at-risk communities. Based on a comparison of historic tsunami events along the west coast of California and consideration of tidal fluctuations and other factors, a maximum tsunami wave height of 21 feet along the Sonoma County coast could be created by a large seismic event. However, given the limits of available data, and the possibility that future events may differ from historic events, it is possible that the actual inundation from a tsunami could be greater than currently projected.

For the purposes of this Local Coastal Plan and the *Sonoma County Operational Area Tsunami Response Plan and Evacuation Plan* (part of the *Sonoma County Hazard Mitigation Plan*), a conservative approach was assumed and a maximum tsunami wave height of 25 feet (7.6 meters) along the Sonoma County coast and 5 feet (1.5 meters) in San Pablo Bay were used to identify potential tsunami inundation areas.

Tsunami inundation maps for the Sonoma County coast and San Pablo Bay were released in 2009. The tsunami inundation zone on the Sonoma County coast is shown on **Figures C-PS-3a-k**. Not all tsunamis will inundate all areas in the potential zone. Some tsunamis may be only a few inches or a few feet and affect only a portion of the potential tsunami inundation zone.

Since most of the County coastline is elevated, most areas along the coast are considered safely out of reach of a potential tsunami wave. However, the low-lying coastal communities along the southern Sonoma County coast extending from Jenner to Bodega Bay have area of significant exposure and risk of human injury and property damage

because they contain low-lying public beaches, parks, and infrastructure; and residential and commercial development. Although there are no known recorded deaths from a tsunami in Sonoma County, there were small impacts from tsunamis in 1946 and 1960.

Under the California Coastal Analysis and Mapping Project (CCAMP), FEMA is initiating flood studies/mapping projects in coastal areas as a result of Congressional appropriations for flood hazards mapping. These efforts will address gaps in required engineering and mapping for high flood risk areas impacted by coastal flooding. The Open Pacific Coast Study is a component of CCAMP that involves detailed coastal engineering analysis and mapping of the Pacific coast of California. Results from the Open Pacific Coast Study will be used to remap the coastal flood risk and wave hazards for fifteen California counties, including Sonoma County.

4.1.5 Floodplain Management

The primary method of reducing the risk of hazards and impacts from flooding is through floodplain management. In addition to mapping flood hazards, floodplain management may include restrictions on the type and location of land uses and development in the floodplain. Land uses which can sustain periodic flooding and decrease flood hazards downstream would be encouraged. Floodplain management may also include establishing development and construction standards that minimize vulnerability to flood hazards, such as requiring the first floor of structures to be one foot above the base flood elevation. Floodplain management may also include increased retention of stormwater runoff in the watershed, acquisition of property in flood hazard zones, public education and outreach, and other methods which reduce the need for costly construction projects and disaster relief.

Floodplain management is required by federal and state law. Various incentives such as flood insurance, loans, and State funding of flood control projects are offered if flood management practices are followed including measures that are taken to increase the hydrologic capacity of a natural water course or to create new man-made channels or reservoirs to drain and contain precipitation that otherwise exceeds the capacity of the water course, in an effort to reduce flood damage, usually to man made improvements. In Sonoma County, floodplain management has reduced flood damage primarily by limiting the kind and extent of new construction in flood hazard areas and by elevating existing structures above the base flood elevation. However, property damage from flooding is still a major and persistent problem along the Russian River, which has resulted in Sonoma County having the highest rate of repetitive property losses from flooding in California; and which indicates that a more proactive approach is needed.

The floodplain policies of this Local Coastal Plan are intended to limit development within 100-year flood plain areas; require compliance with siting, development, and constructions standards to minimize the risk of flood hazards for new development; and collaborating and participating in the County's multi-strategy approach to reduce repetitive flood loss properties and minimize the risks for existing development.

4.2 Regulatory Setting

Section 30253 of the 1976 California Coastal Act, directs that new development minimize risks to life and property in areas of high geologic, flood, and fire hazard. Section 30236 of the 1976 California Coastal Act addresses the situations in which rivers and streams may be substantially altered for flood control projects – only where no other method for protecting existing structures in the floodplain is feasible, and where such protection is necessary for public safety or to protect existing structures.

GOAL C-PS-3: **Prevent unnecessary exposure of people and property to risks of human injury and property damage from flooding and other types of inundation hazards**

Objective C-PS-3.1: Regulate new development to reduce the risks of human injury and property damage from existing and anticipated flood hazards to acceptable levels.

Objective C-PS-3.2: Minimize risks of human injury and property damage for existing development within flood hazard areas with an emphasis on reducing repetitive property losses.

The following policies, in addition to others in this Public Safety Element and those in the Open Space and Resource Conservation, Water Resources, and Land Use Elements, shall be used to achieve these objectives:

Policy C-PS-3a: Any area that would be inundated by a 100–year flood event shall be considered to be a flood hazard zone. The Flood Insurance Rate Maps (Flood Rate Maps) adopted by FEMA shall be used as the official source of flood elevation data and flood hazard zone mapping and the 100-year flood and to support the National Flood Insurance Program (NFIP) and associated flood insurance studies. Land use planning and development review shall be based on the Flood Rate Maps except where more detailed parcel-specific and site-specific analyses of flood elevations and flood hazard zones based on scaled interpretations of the Flood Rate Maps are available. Where local analyses indicate flood elevations or flood hazard zones which differ from the adopted Flood Rate Maps, such data shall be provided to FEMA so they may be amended. **(New/GP2020)**

Policy C-PS-3b: Floodplain management shall be given priority over flood control structures for preventing property damage from flooding, except where the intensity of development requires a high level of protection, justifies the costs of a bank or shoreline protection structure, and such structure complies with requirements of the California Coastal Act and shoreline protection structure requirements of this Public Safety Element. **(GP2020)**

Policy C-PS-3c: Encourage increased stormwater retention and decreased stormwater runoff both within and outside of the Coastal Zone to reduce flooding within the Coastal Zone. Floodplain storage capacity shall be preserved by avoiding fill in areas outside of the FEMA 100-year flood hazard zones which retain or could retain flood waters. **(GP2020)**

Policy C-PS-3d: New development, water diversion, vegetation removal, and grading shall be regulated to minimize any increase in flooding and related human injury and property damage. **(GP2020)**

Policy C-PS-3e: Drainage facilities shall be designed to minimize off-site drainage and flooding according to the most current County flood control and design criteria. Alternative bio-engineered drainage designs (e.g., low impact development techniques) are preferred and shall be proposed where they provide adequate capacity and performance to handle expected stormwater flows. The cost of drainage facilities required to handle stormwater runoff from new development shall be the responsibility of the new development. **(GP2020)**

Policy C-PS-3f: Construction of structures within 100 feet of the top of any natural or manmade embankment which defines a channel shall be prohibited, except where Permit Sonoma finds the flood hazard risk to life and property has been minimized. Reductions to building setbacks in 100-year floodplains shall be avoided. Where this policy conflicts with **C-OSRC-5c(2)** of the Open Space and Resource Conservation Element, the more restrictive of the two shall apply. **(Existing LCP Revised)**

Policy C-PS-3g: Assess potential hazards from proposed development on a case by case basis to ensure that siting, mitigation measures, or design changes are sufficient to reduce exposure to these hazards to an acceptable level. Such assessments shall consider hazards from river and creek flooding, dam failure, storm surge and high waves during storms, sea level rise, and undersized or blocked stormwater facilities. **(New)**

Policy C-PS-3h: New dwellings shall be prohibited in Tsunami Hazard Zones. **(Existing LCP Revised)**

Policy C-PS-3i: Tentative and final subdivision maps and approved site plans shall show areas subject to flooding as designated on the Flood Rate Maps adopted by the FEMA. **(GP2020)**

Policy C-PS-3j: Evaluate potential flood and inundation hazards for development projects relative to potential repetitive property loss, and incorporate mitigation measures to reduce the potential for human injury and property damage to a level of less than significant. Evaluate impacts from sea level rise, and storm inundation events. Consider unique coastal characteristics, infrastructure, and adaptive capacity in project design. **(GP2020 Revised)**

Policy C-PS-3k: Work with County Departments, responsible agencies, public, and other stakeholders to develop and implement a long-term plan for reducing repetitive property losses from flooding as detailed in Policy PS-2d of General Plan 2020. Conduct ongoing flood monitoring, implementation of the Local Hazard Mitigation Plan, consider participation in federal hazard programs. **(GP2020)**

5. SEA LEVEL RISE HAZARDS POLICY

5.1 Background

Sea level rise has been taking place since the end of the last Ice Age, about 20,000 years ago before the beginning of human history. Recent studies suggest that as a result of global climate change, sea level rise will accelerate during the coming decades and increase significantly over the next 100 years.

Sea level rise has been recognized as a significant threat to low-lying coastal areas around the world since the issue of global climate change influenced by human activities emerged in the 1980s. People, property, and biotic resources in low lying coastal areas face a long–term threat of inundation as a result of sea level rise; and the potential damages to property, biotic resources, and infrastructure may be considerable. Many coastal communities and infrastructure will be threatened by increased frequencies and intensities of flooding and gradual inundation as sea level rises. Higher ocean levels will also increase creek and river flooding, coastal bluff and shoreline erosion, and the impacts of tsunamis.

Section 30006.5 of the California Coastal Act identifies sea level rise as one of the topics for which additional scientific and technical analysis and recommendations are necessary to aid coastal planning, conservation, and development decisions. This Local Coastal Plan includes policies to address hazards from sea level rise to enhance the safety of residents and visitors, while providing a framework for consideration and

permitting of coastal development projects. This Local Coastal Plan acknowledges the threat of sea level rise and supports appropriate responses, while recognizing that sea level rise is a global rather than a purely local issue.

5.1.1 California Coast Sea Level Rise

Although global sea level rise has been fairly gradual, Coastal California has experienced noticeable sea level rise for at least the past century. According to the *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), sea level has risen by an average of about 7 inches along California's 1100-mile coastline during the past century. According to *The Impacts of Sea-Level Rise on the California Coast* prepared by the California Climate Change Center in partnership with the Pacific Institute (Heberger et al. 2009; referred to as the Pacific Institute Report), under medium to medium high levels of greenhouse gas emissions, the mean sea level along the California Coast will rise from 3.3 to 4.6 feet by year 2100.

The best available science and guidance on sea level rise on the Pacific Coast is in *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (National Academy of Sciences 2012; National Academy Report). The National Academy Report clarifies that variation in land motion complicates the issue of sea level rise, because in the immediate future it is relative sea level rise at any particular location along the West Coast, combined with short-term increases in sea level during coastal storms and high tides that matter to individual communities, rather than global sea level rise alone. The National Academy Report found a steep change in projected sea level rise at Cape Mendocino in Humboldt County due to tectonic uplift. The report states that much of the land on the coast north of Cape Mendocino is rising at up to 0.1 inch per year, whereas the land on the coast south of Cape Mendocino is sinking at an average rate of about half that. As a result, relative sea level north of Cape Mendocino has been falling over the past ten decades while the level south of Cape Mendocino has been rising.

Storms and Sea Level Rise. Storms and flooding in California typically occur during the winter from November to April and are influenced by several climate patterns, most prominently the El Niño Southern Oscillation. Every two to seven years, the Southern Oscillation alternates between two phases, La Niña and El Niño. In contrast to La Niña, "El Niño years" generally result in persistently low air pressure, greater rainfall, and high winds.). The water levels reached during these large, short-term events have exceeded mean sea levels projected for year 2100, so understanding their additive effects is crucial for coastal planning.

Low air pressure during a storm causes an immediate rise in sea level above predicted tides, referred to as storm surge. It also increases wind activity, generating erosive waves on top of the already high sea level. This combination of factors during an El Niño event can cause widespread damage in coastal areas. As sea level rises, flooding from storms will become more frequent and potentially more hazardous.

Impacts. Rising sea levels, large coastal storms, and extreme high tides contribute to flooding and erosion that threatens California coastal communities. Rising seas increase the risk of coastal flooding, storm surge inundation, bluff and coastal erosion, shoreline retreat, saltwater intrusion, and wetland loss or migration. The net result of coastal storms and sea level rise is coastline retreat, ranging from a few centimeters per year for bluffs made of resistant bedrock to several meters for beaches and dunes. These rates of coastline retreat will increase with rising sea levels and are likely to further increase if waves become higher (National Academy Report). The impacts of sea level rise will vary according to local factors such as shoreline characteristics and topography, the location and extent of development, and local drainage and wind patterns.

According to the Pacific Institute Report, nearly half a million Californians will be at risk from future sea level rise. California has the nation's largest ocean economy, valued at about $47 billion/year, with the majority connected to coastal recreation and tourism as well as shipping and ports. Many of the facilities and much of the infrastructure supporting these industries, as well as the state's many miles of public beaches, are within just a few feet of present sea level. Sea level rise will result in more frequent flooding and gradual inundation, as well as increased bluff, dune, and shoreline erosion. This flooding and erosion will affect transportation facilities, utility systems, storm water systems, ports and harbors, large wetland areas, and coastal development (i.e., homes and businesses).

5.1.2 Projected Sea Level Rise on the Sonoma County Coast

Climate change is affecting natural and built systems around the world, including the California coast. In the past century, average global temperature has increased about 1.4°F, and average global sea level has increased 7 to 8 inches. Sea level at the San Francisco tide gauge has risen 8 inches over the past century, and the National Research Council (NRC) projects that by 2100, sea level in California south of Cape Mendocino may rise 66 inches. The Sonoma County Focused Vulnerability Assessment for Bodega Bay research shows that in the worst case scenario, sea-level could rise 78 inches by 2100 as shown in **Table C-PS-1**. The two major causes of global sea level rise are thermal expansion of warming oceans and the melting of land-based glaciers and polar ice caps. While Sonoma County's ocean coast regularly experiences erosion,

flooding, and significant storm events, sea level rise would exacerbate these natural processes, and lead to significant social, environmental, and economic impacts. The third National Climate Assessment cites strong evidence showing that the cost of doing nothing exceeds the costs associated with adapting to sea level rise by 4 to 10 times. Therefore, it is critically important that Sonoma County plan and prepare to adapt to sea level rise to ensure public resources and coastal communities are resilient for present and future generations. Future Development considerations should include future vulnerabilities to sea level rise and corresponding habitat migration.

Table C-PS-1: Focused Vulnerability Assessment Sea Level Rise Projections

Scenario	Projected Sea Level Rise	
	feet	cm
1 - 2016	0	0
2 - 2030	0.83	25
3 - 2050	1.67	50
4 – 2100 Best Case	3.33	100
5 – 2100 Worst Case	6.56	200

Sea level rise inundation maps were prepared for Sonoma County using the Pacific Institute Report's projected sea level rise, together with 100-year fluvial flood events for year 2100. **Figures C-PS-4a-c** illustrate the areas along the Sonoma County coast at risk from erosion, and Figures C-PS-3a-k illustrate the areas at risk from permanent inundation and temporary flooding as a result of sea level rise during a 100-year storm event by year 2100.

Sonoma County Planning staff examined the digital data from the Pacific Institute Report that was used to prepare Figures C-PS-3a-k. **Table C-PS-2** shows, by SubArea, the public roads, State facilities, and County facilities projected to be permanently inundated or temporarily flooded as a result of sea level rise and the 100-year coastal storm event by year 2100. In addition to the public roads and facilities listed in Table C-PS-2, numerous residential, commercial, recreational, and vacant properties and portions of the California Coastal Trail are projected to also be inundated or flooded.

Sea Level Rise Vulnerability Assessment for the Sonoma Coast. In May 2017 Sonoma County completed a sea level rise adaptation planning effort for the Sonoma Coast. The County first conducted a general assessment of the coastal areas, communities, land uses, development, and public facilities most vulnerable to sea level rise impacts to prioritize development of community-specific focused vulnerability

Table C-PS-2: Public Roads, State Facilities, and County Facilities on the Sonoma County Coast Potentially Inundated or Flooded as a Result of Sea Level Rise and the 100-Year Flood by Year 2100

SubArea	Public Roads	State Facilities	County Facilities
1 **The Sea Ranch North**	Highway 1	*Del Mar Landing State Ecological Reserve*	*Gualala Point Regional Park & Beach* *The Sea Ranch Access Trails*: Bluff-Top; Salal; and Walk-on Beach
2 **The Sea Ranch South**			*The Sea Ranch Access Trails*: Shell Beach; Stengel Beach; Pebble Beach; and Black Point Beach
4 **Salt Point**		*Salt Point State Park*: Fisk Mill Cove; Gerstle Cove; Horseshoe Cove; Horseshoe Point; Salt Point; and Stump Beach	
5 **Timber Cove/ Fort Ross**	Highway 1	*Fort Ross State Historic Park*: Fort Ross Cove; Kohlmer Gulch; Sandy Cove; and Windermere Point	*Stillwater Cove Regional Park*: Stillwater Cove & Boat Launch; Stillwater Cove Expansion: Pocket Cove and Bluff Trail – Ocean Cove to Stillwater Cove
7 **Duncans Mills**	Highway 1 Hwy 116 B Street Freezeout Rd Main St Moscow Rd Steelhead Blvd	*Sonoma Coast State Park Access Trails*: Duncans Mills River; Rancho del Paradiso - Freezeout River; Steelhead Boulevard River; and Willow Creek - Freezeout	
8 **Pacific View/ Willow Creek**	State Highway 1 Emery Rd Willow Creek Rd Wrights Beach Access Rd	*Sonoma Coast State Park & Beach*: Arched Rock; Duncans Cove, Point, & Landing; Penny Island; Blind Beach; Furlong Gulch Beach; Goat Rock Beach; Mann Beach; No Name Beach; North Portuguese Beach; Portuguese Beach; Wrights Beach; Monte Rio to Willow Creek Trail; and Willow Creek Campground & River Access Trail	*Doran Regional Park & Beach*

Table C-PS-2: Public Roads, State Facilities, and County Facilities on the Sonoma County Coast Potentially Inundated or Flooded as a Result of Sea Level Rise and the 100-Year Flood by Year 2100 (continued)

SubArea	Public Roads	State Facilities	County Facilities
9 **State Beach/ Bodega Bay**	Highway 1 Bay Flat Rd Bean Ave Brooke Rd Churchill St Doran Beach Rd Driftwood Rd Extension–Westshore to Whaleship Roads Maryana Dr Ocean View Ave Shaw Ct Smith Brothers Rd Westshore Rd	*Bodega Dunes Campground* *Sonoma Coast State Park*: North Salmon Creek Beach and South Salmon Creek Beach (*Doran Regional Park*: U.S. Coast Guard facility)	*Birdwalk Loop Trail* *Doran Regional Park & Beach*: Doran Beach; Doran Beach Road; Jetty Day Use Area; Miwok Tent Campground; boat launch & parking; and visitor's center/ operations *Westside Regional Park*: boat launch; RV & tent campsites; and parking *Mason's Marina, Spud Point Marina, Bodega Bay Sport Fishing Center:* onshore facilities
10 **Valley Ford**	Highway 1 John's St Middle Rd School St (Main St) Valley Ford – Estero Rd Valley Ford – Freestone Rd Valley Ford Rd		*Gold Ridge Soil Conservation District Office*

Notes:

[1] Pacific Institute Report (Heberger et al., 2009)

[2] The County's hazards maps and tables can be used as a resource for identification of potential hazard areas and vulnerable properties; however, absence of maps alone cannot be considered absence of hazard, and local site conditions must be examined using the best available science.

assessments. The *Sonoma County Coast General Vulnerability Assessment* was completed in June 2016. The *General Vulnerability Assessment* depicts the inundation from sea-level rise in 1-foot increments up to 6 feet (2100 scenario). The results are those SubAreas with a relative vulnerability of "high" are Highcliffs/Muniz-Jenner (SubArea 6), Pacific View/Willow Creek (SubArea 8), and State Beach-Bodega Bay (SubArea 9).

Based on these results, the County identified the community of Bodega Bay as the subject for a focused vulnerability assessment. The *Bodega Bay Focused Vulnerability Assessment and Adaptation Strategies* (Vulnerability Assessment) and recommendations are located in **Appendix G**

5.1.3 Exposure to Inundation and Erosion

As part of the Sonoma County coast sea level rise adaptation planning effort funded by the Ocean Protection Council, the Center for Ocean Solutions analyzed the relative exposure of coastline areas to erosion and sedimentation caused by storms, and the role of natural habitat in reducing this exposure (Hartge et. al., 2016a).

The Center of Ocean Solutions (COS) and the National Capital Project (NCP) have conducted spatial analyses areas along the Sonoma County coastline at risk of erosion and inundation caused by storms. In addition, the analyses evaluated the role of natural habitat in reducing coastal exposure in Sonoma County. The information below summarizes the findings for the spatial analyses under a 2030 sea level rise scenario (National Academies of Science, 2012).

Figures C-PS-4a-c depict the findings of the analyses of coastal exposure for Sonoma County to erosion and inundation caused by storms under a 2030 sea level rise scenario. The coastal exposure values reflect the relative exposure of different coastline segments to erosion and inundation caused by coastal storms. The map is based on spatial data that includes the 2030 projection for sea level rise, coastal geomorphology, coastal topography and bathymetry, surge potential, wind and wave exposure, natural habitats, and human population. This mapping approach is qualitative and provides a broad overview of the spatial patterns of coastal exposure along the Sonoma County coastline to help prioritize future nature-based adaptation planning strategies for specific locations.

The habitats fringing a coastline attenuate waves and thus reduce storm-related damage to shorelines from erosion and inundation. North of the Russian River mouth to the northern extent of Sonoma County, kelp forest habitat backed by rocky cliffs dominate the landscape and are generally low exposure. In contrast, south of the

Russian River mouth, a greater diversity of habitats (e.g., wetlands, beaches, dune systems) are present and are habitats that are highly exposed to erosion and inundation during storms compared to north of the River mouth. As coastal development and rising sea levels alter or damage these habitats, coastlines and nearby infrastructure become increasingly vulnerable to storms.

Coastal habitats provide an ecosystem service by reducing the impacts of storms and by increasing resilience in coastal areas. However, with ever increasing stresses on ecosystems, it is important to identify where natural habitats provide the greatest benefits to prioritize adaptation planning efforts that protect or restore those critical natural habitats. The habitat types which provide the highest level of natural protection have been identified and mapped.

Figures C-PS-5a-c depict the areas along the Sonoma County coastline in which natural habitat plays a role in reducing exposure to erosion and inundation during storms. For example, the dark brown areas in Doran Beach and south of Salmon Creek indicate locations where habitats play the largest role in reducing exposure. The lighter tones in the map also indicate where habitat areas provide a protective coastal ecosystem service.

5.1.4 Adaptation to Sea Level Rise

Much is at stake from sea level rise, and in order to minimize damage and losses, California's coastal communities must make adaptation to sea level rise a priority by conducting community sea level rise vulnerability and risk assessments and developing a Sea Level Rise Adaptation Plan. Developing a risk assessment involves considering the actual or future threats or hazards of concern, the economic importance or value of public facilities and infrastructure to the community, and the certainty of projected impacts to the degree that these are known or can be expected. Developing a Sea Level Rise Adaptation Plan involves setting goals, identifying objectives and adaptation measures, developing adaptation strategies for different types of land uses and facilities. The Adaptation Plan should consider public access, unique water dependent infrastructure, inundation caused by storm events, salt water intrusion, and consistency across any state and federal sea level rise projections.

In any coastal community there are three types of areas to be considered for adaptation planning: (1) undeveloped land that is considered or zoned to be developable; (2) existing unprotected development, including residential and commercial areas as well as infrastructure; and (3) existing development that has already been armored. The major armored area along the Sonoma County coast is a portion of the residential development above Gleason Beach. The Gleason Beach Highway 1 Realignment project

proposed by Caltrans is an example of a "retreat" adaptation strategy. The proposal is to realign a 3,700 foot, two-lane section of Highway 1 about 400 feet inland of the current alignment at Gleason Beach. The purpose of the project is to provide a safe transportation facility that is no longer vulnerable to advancing coastal erosion.

Adaptation strategies for private property may be different or more difficult from those appropriate for and public property. Over a longer timescale, the cost of restricting or limiting new development in areas vulnerable to the hazards or impacts from sea level rise is far lower than the cost of addressing damaged or threatened development. For existing private development in vulnerable areas, potential strategies for addressing the impacts from sea level rise include:

(1) Develop incentives for planned retreat or relocation from vulnerable areas; establish mandatory rolling setbacks for future development or significant redevelopment in areas that are likely to be affected by the impacts from sea level rise within the anticipated lifetime of the structures.

(2) Develop a plan and identify funding or other incentives for purchase or relocation of existing structures out of vulnerable areas.

(3) Restrict rebuilding of structures in vulnerable areas that have been damaged by storms or the impacts from sea level rise.

(4) Evaluate existing armored areas to determine whether additional armor or retreat is the most practical long-term approach.

(5) Reduce and eliminate dependence on shoreline protection structures; there may be some critical structures where armoring may provide short-term protection until other long-term solutions can be implemented.

For existing public infrastructure or community resources including ports, and public trust uses such as navigation and recreation, strategies for addressing the impacts from sea level rise include:

(1) Develop retreat or retrofit plans for existing infrastructure subject to future flooding, and remove and relocate or replace the infrastructure according to the plans.

(2) Increase adaptive capacity of shoreline roads, and determine the feasibility of relocating shoreline roads and increasing culvert and roadside ditch capacity. Work with entities such as Caltrans that plan, construct, or operate infrastructure.

(3) Modify the Local Coastal Plan Public Access Element and Public Access Plan to ensure long- term protection of the function and connectivity of existing public access and recreation resources.

(4) Site and design all future projects and infrastructure to account for sea level rise projections based on the best available science and the projected life spans of the structures and facilities.

(5) Reduce and eliminate dependence on shoreline protection structures; there may be some critical structures where armoring may provide short-term protection until other long-term solutions can be implemented.

Based on the costs and benefits as well as the risks, the adaptation plan should then identify the threshold at which the community should take action to prevent, reduce, or adapt to impacts from sea level rise. For example, a coastal park or parking lot can be used intermittently for a long time with periodic winter flooding, but a water or wastewater treatment plant at or near beach elevation must be retrofitted, relocated, or replaced well in advance of facility flooding or failure to ensure continued public services.

For new development in vulnerable areas, potential strategies for addressing the impacts from sea level rise include:

(1) Consider revising Local Coastal Plan land use, siting, and design standards for new development to avoid and minimize risks.

(2) Evaluate policies and standards for wetland, ESHA, and stream buffers to ensure protection of sensitive habitat into the future and to maximize the role natural habitats can play in reducing the impacts of sea level rise.

(3) Consider revising bluff erosion rates and setback standards to avoid and minimize risks.

GOAL C-PS-4: **Prevent unnecessary exposure of people and property to risks of injury or damage from sea level rise.**

Objective C-PS-4.1: Regulate new development to reduce the risks of human injury or property damage in areas subject to projected future sea level rise and other coastal hazards to an acceptable level, incorporating adaptive capacity in design and operation when hazard risk exceeds a project-specific threshold.

Objective C-PS-4.2: Minimize the risks for existing development of human injury and property damage from projected future sea level rise and other coastal hazards to an acceptable level.

Objective C-PS-4.3: Assess what existing development and public facilities and infrastructure are vulnerable to projected future sea level rise and other coastal hazards.

Objective C-PS-4.4: Assess the risks to and potential impacts on existing development and public facilities and infrastructure from projected future sea level rise, inundation from seasonal storm events, and other coastal hazards.

Objective C-PS-4.5: Develop a plan for community adaptation to projected future sea level rise and other coastal hazards to reduce the risks and impacts to an acceptable level.

The following policies, in addition to others in this Public Safety Element and those in the Open Space and Resource Conservation, Water Resources, and Land Use Elements, shall be used to achieve these objectives:

Policy C-PS-4a: For the purposes of vulnerability and risk assessments, mapping, land use planning, and adaptation planning, consider the areas projected to be inundated by sea level rise by 2100 (including under projected high tides, high water conditions in combination with high tides, and with wave and wind impacts during storm events) to be potentially hazardous areas at risk of flooding using the best available scientific estimates, aligning with projections used by regional, state and federal agencies. **(New)**

Policy C-PS-4b: Use the best available science and technical analyses available in combination with site-specific information when evaluating land use or development proposals in areas subject to sea level rise and other coastal hazards. **(New)**

Policy C-PS-4c: Applications for Coastal Development Permits for development potentially subject to hazards from projected sea level rise, shall include a geologic/flood hazards report prepared by a licensed Geotechnical Engineer that evaluates the potential risk from inundation and/or coastal erosion over the economic life (100 years) of the development. The report shall evaluate a range projected sea level rise based on the latest state guidance and include recommendations on development location, design, and construction to reduce risk from coastal hazards and enhance adaptability of the development coast. **(New)**

Policy C-PS-4d: New development shall be set back a sufficient distance landward or otherwise sited and designed to avoid or minimize, to the maximum extent feasible, inundation and/or coastal erosion resulting from the extent of projected sea level rise, storm events, and other coastal hazards based on the best available science over the expected economic life of the development (100 years). **(New)**

Policy C-PS-4e: For development proposed where potential inundation, flooding, and/or coastal erosion resulting from projected sea level rise cannot be completely avoided, sea level rise adaptation measures shall be evaluated and incorporated into the development siting, design, construction, and operation. **(New)**

Policy C-PS-4f: New development shall be avoided on undeveloped land immediately adjacent to wetlands or other sensitive habitats that are at risk of inundation or flooding resulting from projected sea level rise so that these lands are available for wetland or other habitat restoration projects. **(New)**

Policy C-PS-4g: A buffer at least 100 feet wide from the upland edge of wetlands and riparian habitat shall be provided for new development. Buffers shall be measured from the extent of projected sea level rise in tidally influenced areas based on the best available science. In some cases, including for salt marsh wetlands, the required buffer should be greater than 100 feet. The California Department of Fish & Game, U.S. Fish & Wildlife Service, and U.S. Army Corps of Engineers shall be consulted to determine the buffer width. **(New)**

Policy C-PS-4h: As a condition of Coastal Development Permit approval for development subject to hazard risks in the Geologic Hazard Area Zone, Flood Hazard Area Zone, and areas subject to inundation from sea level rise, require the applicant to record a document approved by Permit Sonoma indemnifying the County from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures shall be avoided. Consider California Coastal Commission Draft Residential Adaptation Guidance, or successor document, in development of the condition. **(New)**

Policy C-PS-4i: The conditions of approval for any Coastal Development Permit on public or private property that is subject to hazards from projected sea level rise shall include the requirement that the owner shall record a deed with the following notice included: "The subject property is located in an area subject to inundation, flooding, or coastal erosion hazards as a result of projected sea level rise." **(New)**

6. WILDLAND FIRE HAZARDS POLICY

6.1 Background

The combination of highly flammable fuel, long dry summers and steep slopes creates a significant natural hazard of large wildland fires in many areas of Sonoma County. Wildland fire results in death, injury, economic losses, and a large public investment in firefighting efforts. Woodlands and other natural vegetation are destroyed resulting in the loss of timber, wildlife habitat, scenic quality and recreation. Soil erosion, sedimentation of fisheries and reservoirs, and downstream flooding can also result.

Most damage results from a few large fires in the dry weather months. There were 21 wildland fires of 100 acres or more in the County between 1989 and 2000.

Fire hazard severity has been mapped by the CAL FIRE. Areas on the County coast with a high or very high fire risk are shown on **Figures C-PS-6a-c** and include Timber Cove and Sea Ranch. The highest fire hazard in Sonoma County is found in mountainous areas with dry summers, plenty of fuel, and steep slopes.

Residences have increased the number of fires in rural areas. Ninety-seven percent of the wildland fires over 50 acres in Sonoma County since 1989 were caused by human activities or facilities. Residences in rural areas cause fire suppression agencies to devote limited resources to structural protection while the wildfire spreads.

The probability of large damaging fires in developed areas is affected by weather conditions and the spread of fires in surrounding wildland areas. The type of construction, preventive measures, and the extent of fire suppression services are the chief factors which determine how far these fires spread.

6.1.1 Hazards and Risk Assessment

Fire hazards shown on Figures C-PS-6a-c are only a general picture of the actual hazard because of the size of the areas and differences in vegetation and slope. The maps show the fire hazards only in unincorporated areas which are classified as wildlands and are therefore within the State Responsibility Area served by CAL FIRE.

6.1.2 Land Use Planning

In order to reduce the risks of property damage and human injury from wildland fires in rural areas, the types and intensities of land uses should be limited. Rural development should be most restricted where natural fire hazards are high, fire protection is limited, and road access prevents timely response by firefighting personnel and rapid evacuation by residents. Wildland fire hazards may be reduced by mitigation measures including removing vegetation and installing dependable water systems, but cannot be eliminated entirely.

6.1.3 The Sea Ranch Fuels Management

A landscape and fire management plan for The Sea Ranch was implemented in the 1990s to balance fire safety with the basic concept of preserving the natural landscape. In 2002 The Sea Ranch Association (TSRA) introduced a more aggressive Fuels Management Program to reduce fuel loads throughout The Sea Ranch. The Sea Ranch Association has continued to implement and expand the program. It incorporates the Sonoma County Fire Safe Standards (see Regulatory Environment below) and includes the following objectives and actions: create roadside fuel breaks to allow for safe evacuation and emergency access; reduce fuels on hillsides below homes to reduce fire

intensity; enlarge the Highway 1 fuel break and reduce fuels on both sides of the highway; introduce sheep and goat grazing in the meadows on both sides of Highway 1; enhance riparian vegetation and remove conifers in drainages; and control new vegetation growth. TSRA also addresses fire safety around individual structures through its Defensible Space Fuel Management Resolution which requires the owners of developed property to maintain the fuel breaks around structures mandated by CAL FIRE; and its Design Manual Rules, which outline the permit process, procedure, and standards for fuels management on private lots and neighboring property.

6.1.4 Fire Safety Standards

Fire hazard regulations are intended to minimize on-site property damage and personal injury, avoid damage to adjacent properties, and reduce the cost of fire suppression services. Increasing built-in fire protection in those areas where new construction is allowed is the most cost effective way of achieving these objectives. All development must have adequate water available for fire suppression, whether from a hydrant and community system or from an on-site storage tank.

Where development is permitted near wildlands and natural vegetation, the fire hazard must be further mitigated by other measures. The locations of subdivision lots and building envelopes can maximize access by emergency vehicles and minimize construction in steep or wooded areas. Fire retardant roof materials are now required in high fire hazard areas. Preventing the spread of wildland fires to and from structures also requires use of fire retardant materials and/or removal of surrounding vegetation and clearing of fuel breaks.

Differences in local, state, and federal fire safety standards and requirements and in staffing and training among local fire districts prompted the formation of the Sonoma County Department of Fire Services in 1985, now the Sonoma County Fire and Emergency Services Department. Improvements in standards for road design, water supply, and sprinkler systems have increased the effectiveness of local fire protection services. In February 2003 the County Board of Supervisors approved Ordinance Nos. 5402 and 5373 that amended the County Fire Code to require fire sprinklers for both residential and commercial development with some exceptions. In recent years, fire services have reorganized and consolidated in order to minimize administrative costs and to promote more efficient and consistent service response.

CalFire enforces requirements for firefighting and prevention, works with property owners on controlled burns, and advises rural residents on fire prevention methods. CalFire is currently preparing minimum fire safety standards for wildland areas. See

"Regulatory Setting" below for more information about CalFire responsibilities and activities.

Another important component of fire safety is an improved system of street addresses throughout the county. Fire response time, particularly in rural areas, is occasionally affected by the ability of the responder to locate the affected address. Improved visibility and standardizing street addresses can result in reduced emergency response time.

6.1.5 Public Education

Increased public awareness of fire hazards and fire safe practices is an effective way to avoid or reduce future fire damages and loss of life. Emergency service providers typically provide educational programs that focus on fire prevention. In addition to continuing to promote these ongoing programs, fire prevention information can be provided directly to the general public and to prospective permit applicants for incorporation into the building design. Such a program can be further expanded to include fire hazard information by providing fire hazard warning signs along roadways in particularly vulnerable fire hazard areas.

6.2 Regulatory Environment

The California Department of Forestry and Fire Protection (CAL FIRE) has lead responsibility for fighting wildland fires in designated State Responsibility Areas. The Sonoma County Fire and Emergency Services Department (County Fire) provides fire prevention, fire protection, rescue, emergency medical, code enforcement, and arson investigation services for the unincorporated areas of Sonoma County that are not included in an independent fire protection district. County Fire is responsible for enforcing the California Fire Code and other fire-related codes and ordinances. It enforces vegetation management, reviews building construction plans, and performs inspections of new construction for fire code compliance. In addition, three volunteer fire districts providing fire protection services to different portions of the Sonoma County Coastal Zone. See the Public Facilities and Services Element for a more detailed description of the fire protection services in the Coastal Zone.

The Sonoma County Fire Code is based on the National Fire Code, California Fire Code, Uniform Building Code, and California Subdivision and Development Code; constitutes the local adoption of the California Building Code; and is in Chapter 13 of the Sonoma County Code. It sets forth the requirements of the Sonoma County Fire Safety Ordinance, referred to as the Fire Safe Standards. The County Fire Code was adopted to establish minimum fire safe standards for development within the unincorporated area of the county. The County Fire Code requirements ensure that all new development within the

unincorporated area of the county will provide a basic level of fire protection around itself making it easier and safer for fire fighters to fight wildland and structure fires.

The Fire Safety Standards include but are not limited to requirements for emergency access, road naming and addressing, minimum emergency water supply and sprinklers to ensure a supply of water to fight or defend property from a fire, fuel modification and defensible space to reduce the possibility and intensity of a wildfire, and other fire protection measures. Due to the severe fire risk in many areas of the County, the County's Fire Safe Standards which outline development standards for emergency access, water supply, and vegetation management are more stringent than those required by the California Fire Code.

GOAL C-PS-5: **Prevent unnecessary exposure of people and property to risks of injury or damage from wildland and structural fires.**

Objective C-PS-5.1: Work with other fire agencies to improve fire safety standards, carry-out fire prevention and protection programs, and educate the public about fire hazards and fire prevention.

Objective C-PS-5.2: Regulate new development to reduce the risks of human injury and property damage from known fire hazards to an acceptable level.

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

Policy C-PS-5a: Encourage continued operation of California Department of Forestry and Fire Protection programs for fuel breaks, brush management, controlled burns revegetation, and fire roads; however, brush clearing and controlled burns shall not take place in designated Environmentally Sensitive Habitat Areas (ESHAs) or other sensitive habitats. **(Existing LCP Revised)**

Policy C-PS-5b: Controlled burns shall be allowed on agricultural land with a permit from the local fire agency and in consultation with the local Air Quality Management District and California Department of Forestry and Fire Protection. **(Existing LCP)**

Policy C-PS-5c: Automatic fire sprinkler systems or other on-site fire detection and suppression systems shall be required in all new residential and commercial structures, with exceptions for detached utility buildings, garages, and agricultural-exempt buildings. **(GP2020)**

Policy C-PS-5d: The severity of natural fire hazards, potential damage from wildland and structural fires, adequacy of fire protection services, and mitigation measures

consistent with the Public Safety Element shall be considered in the review of proposed development projects. **(GP2020)**

Policy C-PS-5e: Fire management plans shall be required for subdivisions and new or expanded recreational facilities in non-urban areas, including development of California Department of Parks and Recreation and Sonoma County Regional Parks holdings. Such plans shall include, but not be limited to, adequate water storage, adequate ingress and egress for emergency vehicles and occupant evacuation, and building siting to minimize fire hazards. **(Existing LCP Revised)**

Policy C-PS-5f: Encourage and promote fire safe practices and the distribution of fire safe educational materials to the general public, permit applicants, and local planning agencies. **(GP2020)**

Policy C-PS-5g: Provide fire hazard information signs in Areas of Very High or High Potential for Large Wildland Fires in a manner that is consistent with the Local Coastal Plan and does not degrade Scenic Highway Corridors or scenic views. **(GP2020)**

Policy C-PS-5h: Encourage private individuals and communities on the Sonoma coast to construct small-scale water storage facilities for back-up use in the case of fire and for back-up non-potable water demand. **(Existing LCP Revised)**

7. HAZARDOUS MATERIALS

7.1 Background

Many substances can be hazardous to human health and the environment, which includes air, soil, water, plants, and animals. The California Health & Safety Code defines a hazardous material as "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and the environment if released into the workplace or the environment." Common hazardous materials include oils, fuels, paints and varnishes, antifreeze, cleaning products, solvents, pesticides (includes herbicides, insecticides, fungicides, and rodenticides), and the associated hazardous waste. The increased use of hazardous materials has increased the potential hazards from hazardous materials and actual human injury and environmental damage, especially when they are used and disposed of near surface water. Public concerns have led to tighter controls on the production, transport, storage, sale, and use of hazardous materials, particularly on the handling and disposal of concentrated residues and wastes produced by power plants and other industrial operations.

Hazardous materials are found at many locations in Sonoma County. The electrical generating plants in The Geysers geothermal area use and produce hazardous materials hauled on winding mountain roads. Spills and releases of such materials have occurred. Petroleum fuels get into groundwater and surface water, particularly from underground storage tanks at gasoline stations and marinas. Preventing hazardous materials in the County's solid waste landfills and transfer stations and industrial operations is important because these materials could affect water quality. Boat use, repair, and maintenance activities at Bodega Bay, Spud Point Marina, and Porto Bodega in the Coastal Zone involve the storage, handling, use, and disposal of hazardous materials such as oils and fuels, paints and varnishes, solvents, and cleaning agents that may drain to surface water.

Pesticides are another hazardous material commonly used in Sonoma County by agricultural operations as well as residential, commercial, and recreational land uses. While state law preempts local regulation of pesticides, the County does have the authority to establish use restrictions applicable to its own operations. By doing so, the County can set an example that will encourage others to reduce reliance on pesticides.

Concerns about Outer Continental Shelf (OCS) oil and gas development led to the approval of Ordinance 3592R in the late 1980s, a Countywide ballot initiative that requires voter approval of any proposed Local Coastal Plan Amendment to allow onshore facilities that would support OCS oil and gas development (see Outer Continental Shelf Development Policy in the Land Use Element). The issue of potential oil or other hazardous material spills from onshore support facilities would be addressed in the required environmental documents on the proposed projects.

The management of hazardous materials is included in this Public Safety Element because it has become a major public safety issue requiring attention significant personnel and financial resources and attention by local agencies. Different local, state, and federal agencies have different responsibilities in regulating hazardous materials, discussed under "Regulatory Setting" below.

7.2 Regulatory Setting

Public concerns over the possible adverse effects of hazardous materials on human health and the environment have led to tighter regulatory controls on the production, transport, storage, sale, handling, and use of hazardous materials.

7.2.1 Federal Hazardous Materials and Waste Programs

The primary federal laws regulating hazardous materials, administered by the United States Environmental Protection Agency (U.S. EPA), are the Resource Conservation and

Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CERCLA, often referred to as the Superfund, was enacted to provide broad federal authority to clean up releases or threatened releases of hazardous substances at abandoned hazardous waste sites in the U.S. The hazardous materials waste program under RCRA establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from cradle to grave. In any given State, U.S. EPA or the State hazardous waste regulatory agency enforces hazardous waste laws. The U.S. EPA encourages States to assume primary responsibility for implementing a hazardous materials and waste program through State adoption, authorization, and implementation of the regulations.

7.2.2 State of California Hazardous Materials and Waste Programs

The State of California has assumed the primary responsibility for implementing the federal hazardous materials and waste program. California legislation in 1993 (Senate Bill 1082) established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The Unified Program consolidates, coordinates, and makes consistent the California Environmental Protection Agency (Cal EPA) environmental programs which include:

(1) Hazardous materials inventories and business plans

(2) Permitting for generators of hazardous waste and operators of on-site hazardous waste treatment

(3) Aboveground storage tanks

(4) Underground storage tanks

(5) Spill or accidental release prevention, control, and response

(6) Fire code management plans

Under the Unified Program, Cal EPA certifies local agencies to implement the six state environmental programs listed above within their jurisdictions. The appointed local lead agencies are referred to as Certified Unified Program Agencies (CUPAs).

7.2.3 California Coastal Act

Section 30232 of the California Coastal Act requires that measures to protect against hazardous materials spills, and facilities and procedures for containment and cleanup of hazardous substances spills, be incorporated into proposed projects meeting the definition of development and which involve handling or transporting hazardous substances.

7.2.4 Sonoma County Hazardous Materials and Waste Lead Agencies and CUPAs

Hazardous Materials. The California Department of Toxics Substances Control (DTSC) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the regulation of hazardous materials and waste in California. The DTSC has authorized the Sonoma County Fire and Emergency Services Department as the lead agency and CUPA to enforce federal, state, and local laws pertaining to hazardous materials and hazardous waste management.

The Fire and Emergency Services Department enforces Chapter 29 of the Sonoma County Code regarding hazardous materials management, and for preparing a comprehensive hazardous materials and hazardous waste management plan. Chapter 29 regulates the storage, handling, and management of hazardous materials, whether in waste or non-waste form, unless specifically preempted by state or federal law. The Fire and Emergency Services Department is also responsible for emergency response to hazardous materials incidents throughout most of the County in coordination with local fire and police personnel, and enforces portions of the California Fire Code which address hazardous materials, including routine inspections.

Underground Storage Tanks. The State Water Resources Control Board (SWRCB) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to leaking Underground Storage Tanks containing hazardous substances. The SWRCB has authorized the Sonoma County Department of Health Services as the lead agency and CUPA to enforce federal, state, and local laws pertaining to leaking underground storage tanks in the County.

Pesticides. The California Department of Pesticide Regulation (DPR) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the proper and safe use of pesticides in California. DPR's enforcement of pesticide use in the field is largely carried out in California's 58 counties by County Agricultural Commissioner Offices and their staffs. The DPR has authorized the Sonoma County Office of the Agricultural Commissioner as the lead agency and CUPA to enforce federal, state, and local laws pertaining to the use, storage, and sales of pesticides in the County.

Oil Spills. The Oil Pollution Act of 1990 (OPA) improved the nation's ability to prevent and respond to oil spills by establishing provisions that expand the federal government's ability, and provide the money and resources necessary, to respond to oil spills. Under the OPA, the U.S. Coast Guard and U.S. EPA are the lead responsible agencies for preventing, preparing for, and responding to oil spills that occur in and around coastal waters and inland waters of the United States, respectively.

The Office of Spill Prevention and Response (OSPR), within the California Department of Fish and Wildlife, serves the responsibilities as public trustee and custodian for the protection, management, and restoration of the fish, wildlife, and plants across the State. As such, it is one of only a few agencies in the United States that both maintains major pollution response authority and public trustee authority for wildlife and habitat. In 2014, Governor Jerry Brown expanded the capabilities of the OSPR to include all state surface waters at risk of oil spills from any source, which more effectively captured possible spills from pipelines, production facilities, and railroad oil shipments (California features more than 7,000 rail crossings over water bodies).

Transport of Hazardous Waste. The California Department of Toxics Substances Control (DTSC) is vested with the primary authority through the U.S. EPA to enforce federal and state laws pertaining to the transport of hazardous waste in California. The DTSC has authorized the California Highway Patrol and Office of the State Fire Marshal to enforce some of the federal, state, and local laws pertaining to the transport of hazardous waste.

To operate in California, hazardous waste transporters must be registered with the DTSC. Unless specifically exempted, hazardous waste transporters must comply with the regulations of the U.S. Department of Transportation, DTSC, California Highway Patrol, and Office of the State Fire Marshal.

GOAL C-PS-6: **Prevent unnecessary exposure of people and property to risks of injury or property damage from hazardous materials.**

Objective C-PS-6.1: Regulate the handling, storage, use, and disposal of hazardous materials in order to reduce the risks of injury or property damage from hazardous materials.

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

Policy C-PS-6a: Siting of hazardous waste repositories, incinerators, facilities that use a substantial quantity of hazardous materials, or other similar facilities intended primarily for hazardous waste disposal shall be avoided in any area subject to inundation, flooding, coastal erosion hazards resulting from projected sea level rise and other coastal hazards, and in areas subject to heightened ground shaking during an earthquake event (Modified Mercalli Index (MMI) Ground shaking Intensity Level higher than Strong (VII) as identified on Figures C-PS-1a-c or within one quarter mile of schools. Siting shall be avoided in any area designated for urban residential or rural

residential use; on agricultural lands; or near waterways, bays, or the ocean. **(GP2020)**

Policy C-PS-6b: A use permit shall be required for any commercial or industrial use involving hazardous materials in threshold planning quantities as determined by Federal and State laws. A hazardous materials management plan shall be required as a condition of approval for such permits. **(GP2020)**

8. IMPLEMENTATION PROGRAMS

8.1 Public Safety Implementation Programs

Program C-PS-1: Develop a comprehensive adaptation plan and incentives for planned retreat or relocation from hazard areas;

(1) Establish mandatory rolling setbacks for future development or significant redevelopment in areas that are likely to be affected by the impacts from sea level rise within the anticipated lifetime of the structures.

(2) Identify funding or other incentives for purchase or relocation of existing structures out of vulnerable areas or areas exposed to significant hazards risks.

(3) Limit rebuilding of structures in vulnerable areas that have been damaged by storms or the impacts from sea level rise, including increased rates of erosion. **(New)**

Program C-PS-2: Where geologic hazards threaten multiple properties in the same vicinity and all would benefit from a unified, coordinated response to minimize risks, consider the formation of a Geologic Hazard Abatement District (GHAD) as a means to reduce geotechnical problems associated with development in geologically active areas. A GHAD is an independent public entity (public agency) which oversees the prevention, mitigation, and abatement of geologic hazards. Funding of the GHAD is through supplemental property tax assessments. **(New)**

Program C-PS-3: Develop a Strategic Plan for and incorporate into existing plans, damage assessment and recovery of essential service buildings and facilities consistent with Policy PS-1n of the General Plan 2020. **(GP2020)**

Program C-PS-4: Consider amending or adopting a new hazard combining zone to address impacts related to development and redevelopment in hazard areas and on coastal bluffs in order to protect such development from the effects of costal bluff erosion. **(Existing LCP Revised)**

Program C-PS-5: Where additional data and information is necessary to adequately assess the on-site and off-site flood and inundation hazards from a proposed development, to develop mitigation measures, or to determine compliance of an existing or proposed development with the Coastal Zoning Ordinance, a supplemental site-specific flood and inundation hazards analysis shall be required. The site-specific analysis may include but is not limited to:

(1) Topographic mapping.

(2) Analysis of the influence of sea level rise on flood elevations and flood and inundation hazards and zones.

(3) Delineation of flood and inundation hazard zones.

(4) Calculation of expected flood elevations.

(5) Calculation of expected flood velocity.

(6) Analysis of the impacts on on-site and off-site flooding, drainage, and stormwater runoff.

(7) Using construction details and specifications, analysis of compliance with the Coastal Zoning Ordinance.

(8) Using cost and appraisal data, analysis of when reconstruction, rehabilitation, additions, or other improvements to structures would constitute a substantial improvement under the Sonoma County Code.

(9) Development of mitigation measures to reduce or eliminate the potential for human injury and property loss from flood and inundation hazards, particularly in areas subject to repetitive property loss. **(New)**

Program C-PS-6: Establish a new Flood Hazard Area Combining Zone to include regulations for the permissible types of uses, intensities, and development standards in the following flood and inundation hazard areas:

(1) 10-Year Base Flood Zones

(2) 100-Year Base Flood Zones

(3) Areas at Risk from Sea Level Rise by 2100 – Flooding

(4) Areas at Risk from Sea Level Rise by 2100 – Landward Limit of Erosion High Hazard Zone

(5) Areas at Risk from Tsunami of Up to 25 Feet

As a condition of coastal permit approval for development in the Flood Hazard Area Combining Zone, require the applicant to record a document exempting the County

from liability for any personal or property damage caused by natural geologic or other hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit during the structure's economic life are prohibited. **(New)**

Program C-PS-7: Consider developing regulations that require the use of low impact development techniques to reduce stormwater runoff from new development. **(GP2020)**

Program C-PS-8: Consider preparing a study of the impacts of sea level rise and other coastal hazards on public facilities and infrastructure, private development, communities, and natural ecosystems based on the best available scientific estimates and current state guidance as part of future updates to the Hazard Mitigation Plan. **(New)**

Program C-PS-9: Study, monitor, develop, and implement a plan to mitigate the impacts to groundwater from saltwater intrusion resulting from sea level rise and storm events based on the best available science. **(New)**

Program C-PS-10: Consider preparation of a Sea Level Rise Vulnerability and Risk Assessment, and Adaption Plan for the Sonoma County coast based on guidance from the California Coastal Commission's Sea-Level Rise Policy Guidance (2018), the California Ocean Protection Council's Sea-Level Rise Guidance (2018), and other applicable publications. Focus on those SubAreas of the Sonoma County coast at the highest risk of inundation, flooding, or coastal erosion resulting from sea level rise, which include The Highcliffs/Muniz/Jenner (SubArea 6), Pacific View/Willow Creek (SubArea 8), Duncans Mills (SubArea 7), and State Beach/Bodega Bay (SubArea 9).

Preparation of the Sea Level Rise and Coastal Hazards Adaptation Plan shall involve collaboration with pertinent County of Sonoma departments and agencies, independent utility districts, and responsible federal and state agencies; and participation of the public.

The Sea Level Rise and Coastal Hazards Adaptation Plan shall focus on public and quasi-public facilities and infrastructure and include the following components:

(1) Discussion of the following planning tools to help communities adapt to sea level rise and other coastal hazards: public purchase of private property for public uses, sale or transfer of public land to accommodate relocated roads and infrastructure, transfer of development rights, parcel reconfiguration, and zoning and land use designation amendments.

(2) Requirements and standards for siting, design, and construction of new public facilities and infrastructure and private structures in areas subject to sea level rise and other coastal hazards as mapped in the Vulnerability Assessment.

(3) Requirements and standards for maintenance and removal of abandoned structures.

(4) Cost/benefit analyses of: a) adaptation measures versus no adaptation measures and b) carrying-out adaptation measures pre-inundation versus post-inundation (i.e., emergency conditions).

(5) Plan for full disclosure of potential hazards to owners of property in areas subject to sea level rise and other coastal hazards as mapped in the Vulnerability Assessment.

(6) Identify options and mechanisms to minimize or avoid County obligations to compensate for private property loss or damage resulting from sea level rise and other coastal hazards.

The County will continue to work with the Ocean Protection Council and other agencies and organizations to develop possible adaptation strategies for particular areas of the Sonoma County coast. **(New)**

Program C-PS-11: Identify existing green infrastructure (coastal land, habitats, vegetation, natural features, and ecological processes) which may be used to increase coastal resiliency to climate change, sea-level rise, and flood and geologic hazards (erosion); and strategies for adapting to climate change and sea-level rise through maintenance or enhancement of this green infrastructure. These adaptation strategies may include, but are not limited to, planned retreat, land preservation, habitat conservation, and habitat restoration. **(New)**

Program C-PS-12: Periodically review and update the extent of projected sea level rise in the Local Coastal Plan based on best available science. **(NEW)**

Program C-PS-13: Consider adopting an ordinance which prioritizes relocation and allows reconstruction of a structure damaged or lost from inundation or flooding related to sea level rise where certain criteria can be met; an evaluation of the feasibility of relocation to a location where hazard risks are minimized is provided; where relocation is not feasible, a reconstructed structure must be raised a minimum number of feet above the anticipated base flood elevation considering projected future sea level rise during the economic life of the structure based on the most up-to-date science; and where such an adaptation approach is considered feasible and practical and is expected to minimize the risk of inundation and flooding of the structure to an acceptable level. **(New)**

Program C-PS-14: Continue to adopt revisions to the California Fire and Building Codes and other standards which address fire safety as they are approved by inspection organizations and the State of California. Review, revise, and/or adopt existing or new

local Codes, ordinances, and Fire Safe Standards to reflect contemporary fire safe practices. **(GP2020)**

Program C-PS-15: Proposed development projects shall be referred to the Sonoma County Fire and Emergency Services Department and responsible fire protection agencies for their review and comment. **(GP2020)**

Program C-PS-16: Improve and standardize the County's street addressing system in order to reduce emergency service response times. **(GP2020)**

8.2 Other Initiatives

Other Initiative C-PS-1: Coordinate flood hazard analysis and floodplain management activities with the United States Army Corps of Engineers (USACOE), FEMA, State Office of Emergency Services (State OES), Sonoma County Fire and Emergency Services Department, Sonoma County Water Agency (SCWA), and other responsible agencies. **(GP2020)**

Other Initiative C-PS-2: Encourage FEMA to update its flood insurance studies and Flood Insurance Rate Maps (Flood Rate Maps) to show the following information. This mapping would allow regulations and mitigation efforts to focus on the areas at the highest risk of flood hazards, and allow flood insurance premiums to be more reflective of the actual flood hazard risks on specific properties. Provide FEMA data generated from detailed parcel-specific and site-specific analyses of flood elevations and flood hazard zones when available to assist in updating flood insurance studies and Flood Insurance Rate Maps.

(1) Flood elevations and flood hazard zones which reflect inundation hazards unique to the Coastal Zone such as sea level rise and greater ocean surges and larger waves during storms based on the most up-to-date data and science, including data developed under the California Coastal Analysis and Mapping Project and Open Pacific Coast Study (OPC Study); and

(2) Detailed mapping of the 100-year floodplain to delineate the 10-year, 25-year, and 50-year floodplains. **(New)**

Other Initiative C-PS-3: Coordinate with state and local emergency services to educate the public about the areas subject to inundation from a tsunami, where to go in the event of an earthquake, and evacuation routes in the event of a tsunami by distributing educational materials to parcel owners within the tsunami run-up zone and by erecting signage specified by the Sonoma County Operational Area Tsunami Response Plan. **(New)**

Other Initiative C-PS-4: Encourage the California Department of Parks and Recreation, Sonoma County Regional Parks Department, Sonoma County Agricultural Preservation and Open Space District, Sonoma Land Trust, and similar organizations to purchase natural lands adjacent to wetlands or other sensitive natural habitats which are at risk of inundation or flooding from projected sea level rise, based on the best available science, for use as wildlife habitat. **(New)**

Other Initiative C-PS-5: Work with stakeholders to develop a disclosure for real estate transactions involving properties subject to inundation, flooding, and/or coastal erosion hazards as a result of projected future sea level rise. Prior to the lease, sale, or other conveyance of any portion of public property, or issuance of a Coastal Development Permit for the use or development of public lands subject to projected sea level rise, provide a Real Estate Disclosure Statement which states that the property is located in an area that is subject to inundation, flooding, or coastal erosion hazards as a result of projected sea level rise. **(New)**

Other Initiative C-PS-6: Work with the California Department of Forestry and Fire Protection to identify areas of high fire fuel loads and take advantage of opportunities to reduce those fuel loads, particularly in Areas with Very High or High Potential for Large Wildland Fires and in High Fire Hazard Severity Zones. **(GP2020)**

Other Initiative C-PS-7: The Sonoma County Department of Emergency Services shall offer assistance to local agencies in adopting and enforcing fire safety regulations and shall work with local agencies to develop proposed improvements to related County Codes and standards. **(GP2020)**

Other Initiative C-PS-8: Encourage the California Department of Parks and Recreation, and the Sonoma County Regional Parks Department to continue efforts to educate the public about fire hazards and fire prevention. **(Existing LCP Revised)**

Other Initiatives C-PS-9: Continue to educate the general public about and promote the reduction in use of hazardous materials, proper disposal of hazardous materials, and the use of safe alternatives to hazardous materials in County operations and private businesses. (**GP2020 Revised**)

Other Initiatives C-PS-10: Work with applicable regulatory agencies to regulate the use, disposal, and transport of hazardous materials consistent with adopted County policies. (**GP2020 Revised**)

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

CIRCULATION AND TRANSIT 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
September XX, 2019

CIRCULATION AND TRANSIT ELEMENT

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CIRCULATION AND TRANSIT ELEMENT

1. INTRODUCTION

1.1 Purpose and Background

The Circulation and Transit Element addresses the planned transportation routes and facilities along the coast, including goals, objectives, and policies affecting the mobility of future residents, businesses, and visitors. The 1976 California Coastal Act (Coastal Act) encourages maintenance and improvement of access to coastal resources, and requires that State Highway 1 in rural areas remain a scenic two-lane highway.

The current traffic congestion on the coast has resulted from a combination of factors. Regional factors include growth in employment and population primarily within Sonoma County's cities. Local factors include increases in parkland acreage through expansions, acquisitions, and dedications; in the number and length of trails and associated hiking opportunities; in access to the beach and ocean; and lack of public transportation. Most importantly, the public continues to prefer the automobile as the primary means of transportation.

1.2 Relationship to Other Elements

The Circulation and Transit Element and its implementing measures are coordinated with the Land Use Element in the following manner to assure that the transportation system serves future travel demand and helps attain the desired land use plan.

The Circulation and Transit Element uses the Land Use Element projections of future population and job growth.

The policies are designed to support the land use plan, maps, objectives and policies that emphasize concentrating development within Urban Service Areas and limited growth in rural areas.

Other Elements also address transportation issues. Pedestrian oriented urban design, bikeways, and air quality are also addressed in the Open Space and Resource Conservation and Public Access and Recreation Elements. Projected noise contours for highway sources are addressed in the Noise Element.

1.3 Scope and Organization

The Circulation and Transit Element contains five sections. These sections include: an introduction and four sections containing goals, objectives, and policies for the planned

circulation and transit system, alternative transportation modes and vehicle use reduction, highway system, and phasing and funding of improvements. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives", intended to support maintenance and improvement of the transportation system, and promote inter-agency and community collaboration.

2. CIRCULATION AND TRANSIT SYSTEM

2.1 Existing and Projected Transportation Conditions in 2020

As part of the GP2020 update of the Sonoma County General Plan, the County conducted a circulation and transit analysis of the entire County. This analysis formed the basis for a countywide strategy to provide mobility and access as well as to protect the character of small communities. The Sonoma County coast was included in this analysis, but due to the projection of limited population growth in the area it was not emphasized.

The Sonoma Coast/Gualala Basin region has a sparse roadway network due to its remote location and very low population density. The major roadways, all two-lane rural roads, are State Highway 1, State Highway 116, Bodega Highway, Stewarts Point-Skaggs Springs Road, Coleman Valley Road, Annapolis Road, and Valley Ford-Freestone Road. With the exception of State Highway 1, these roadways run east-west (**Figures C-CT-1a-c**). Other roads serve only as minor access routes, but could be important as alternate routes in emergencies. Daily buses connect the small communities along State Highway 1 to Sebastopol, Santa Rosa, and Mendocino County.

Traffic patterns are affected primarily by recreational travel, particularly on weekends. Tourism has increased as a result of growth in the Bay Area; growth in employment and population primarily within the County's cities; increases in parkland acreage through expansions, acquisitions, and dedications; increases in number and length of trails and associated hiking opportunities; increases in access to the beach and ocean; and the lack of convenient public transportation along the coast.

2.1.1 State Highway 1

Traffic and Circulation Conditions

Traffic on State Highway 1 has increased since the first transportation study was conducted for the 1981 Local Coastal Plan. Tourism has increased substantially in recent years and has had an impact on traffic levels on State Highway 1 during peak weekend periods, especially in the summer and fall. State Highway 1 through Bodega

Bay and Bodega Avenue are the most congested on weekends. Peak traffic volumes on the stretch of State Highway 1 adjacent to the Sonoma Coast State Beaches occur on summer weekends, particularly on Sundays, during which visitors and local residents often experience severe traffic congestion and shortage of parking spaces.

Table C-CT-1: Traffic Volume Trends Highway 1 2007-2017

Intersection	Peak Hour	Peak Month Daily Average	Annual Average Daily Traffic
Valley Ford Road	150.0%	34.7%	31.0%
Valley Ford/Freestone Road	96.1%	31.8%	28.9%
Bodega Highway	77.8%	136.8%	116.7%
Bodega Eastshore Road	16.9%	-1.8%	-9.6%
JCT. RTE. 116 East	29.0%	7.7%	11.1%
Jenner	51.5%	7.7%	11.1%
Fort Ross, Fort Ross Road	73.9%	6.7%	8.1%
Stewarts Point/Skaggs Springs Road	42.9%	-2.3%	0.0%

The large increase in peak hour volumes at the southernmost intersections shows a growing trend for commuters living in the Sebastopol area to use Highway 1 as an alternative route to job centers in Petaluma and Marin County. The peak month daily average at the Bodega Highway intersection indicates a significant increase in tourism traffic through this intersection. Given the smaller increase at the northern intersections, most traffic is headed to Bodega Bay and nearby public beach areas.

Sonoma Coast State Park and Sonoma County public beaches are among the most visited parks northwestern California, generating significant weekend traffic congestion. With limited public transportation and lack of safe bicycle routes, most people are obligated to drive in order to enjoy the Sonoma Coast.

Roadway Capacity and Conditions

Existing natural conditions along coastal roadways, and lack of undeveloped land adjacent to the right-of-way in the communities of Bodega Bay and Jenner create a situation where capacity improvements are generally not feasible and should be discouraged except where capacity improvement will also improve road safety. Outside of these communities, Highway 1 operates well below capacity, and congestion is not an issue. With narrow shoulders, inadequate sight lines, and limited opportunity for safe passing, improving road safety is the primary concern along the entire length of Highway 1.

Transportation Improvements

In the 1985 California Department of Transportation (Caltrans) Route Concept Report Summary on State Highway 1, Caltrans identifies the following potential roadway safety improvement projects: shoulder widening, passing lanes, channelization and intersection improvements to enhance turning movements, additional parking areas where unsafe parking conditions currently exist, and features that would minimize roadside parking on the highway. Safety improvements to State Highway 1 constructed since the last Local Coastal Plan Update in 1995 include left turn lanes at The Sea Ranch, at the intersection with State Highway 116 near Jenner, near The Tides restaurant, and at the Bodega Harbour Subdivision. Other improvements include stabilization projects north of Jenner, guardrails along the Russian River estuary, and the ongoing project to relocate Highway 1 along Gleason Beach.

Providing turning lanes at intersections and parking areas is the most effective approach to improving the capacity of State Highway 1 while maintaining it as a two-lane scenic highway. Addition of turning lanes provides considerable safety benefits as well as reducing traffic delays in Jenner, Bodega Bay, and near public beaches.

Other safety improvements proposed for State Highway 1 are selective widening and road alignments; parking management, development and enforcement programs; and other types of road improvements such as roadway striping and marking, bicycle lanes and pedestrian ways. Improvements to State Highway 1 such as construction of bicycle paths or widening of shoulders will be necessary to construct the Sonoma County segment of the California Coastal Trail (see discussion below).

Minor road improvements in the community of Bodega Bay will not relieve traffic congestion, and establishing a bypass route has proven infeasible. While capacity along this section of State Highway 1 will remain inadequate, there are opportunities to improve pedestrian safety and reduce dependency on automobiles for local trips by adding pedestrian walkways, restricting turning movements across traffic, and reducing vehicle speeds.

2.1.2 Active Transportation and Transit

The Complete Streets Act of 2008, which mandates that all cities and counties modify the circulation element of their general plans to provide for a transportation network that equitably meets the mobility needs of all, including pedestrians, bicyclists, children, students, persons with disabilities, users of public transportation, together with motorists and movers of commercial goods.

A comprehensive, safe, and convenient bicycle and pedestrian transportation network is a critical component of an overall strategy to reduce automobile dependency for residents and visitors, as well helping to meet greenhouse gas (GHG) emissions reduction standards established under the California Global Warming Solutions Act of 2006 (AB 32).

Walking and bicycling are the most energy efficient modes of transportation. When all energy inputs are considered, walking or bicycling to work will consume less than 1% of the energy used by the most fuel efficient automobile. Given that transportation accounts for almost half of carbon emissions generated in Sonoma County, even small mode shifts away from automobiles to walking and bicycling will create significant reductions in the County's carbon footprint.

Safety of bicyclists and pedestrians along is a major transportation issue on the Sonoma County coast. Although the highway is narrow, winding, and dangerous for bicyclists, it is increasingly popular as a bicycle touring route. Class I bicycle paths along State Highway 1 would alleviate these issues.

Where Class I or separate bicycle paths are not feasible, Class II bicycle paths are safer than the existing narrow shoulder along the highway. However, under that option parking restrictions and enforcement would be needed to keep parked vehicles out of roadside bicycle lanes.

Public transit is provided by Mendocino Transit Authority and Sonoma County Transit. Mendocino Transit Authority operates bus route 95, which is the only year-round transit service along the Sonoma Coast. Service is limited to a single daily trip running southbound to Santa Rosa in the morning and returning in the afternoon. This route provides a limited opportunity for coastal residents working in Sebastopol and Santa Rosa, but does not provide good service for workers living in the coastal area that need to commute to jobs in the inland areas of Sonoma County.

Sonoma County Transit routes 29A and 29B provide seasonal service on weekends to the Sonoma Coast from June through early September. These routes provide several trips per day, with Route 29A connecting Bodega Bay to Sebastopol and Santa Rosa. Route 29B connects Bodega Bay to Jenner, Duncan’s Mills, Monte Rio, and Guerneville.

2.1.3 California Coastal Trail

The 1975 California Coastal Plan mandated the California Coastal Conservancy (Coastal Conservancy) to develop and implement the California Coastal Trail, a continuous public trail or system of trails along the length of the coastline, with the exact alignment and

location to be determined locally through community input. The Sonoma County segment of the California Coastal Trail will provide opportunities for a variety of users. (Also see Public Access Element).

Assembly Bill 1396, passed in August 2008, enhances coordination for development of the California Coastal Trail. The bill requires Caltrans to notify certain agencies involved in development of the California Coastal Trail of any excess State property that could be used as part of the trail, requires transportation planning agencies whose jurisdiction includes a part of the California Coastal Trail to coordinate with certain agencies in its development.

3. CIRCULATION AND TRANSIT SYSTEM POLICY

3.1 General Transportation Policies

GOAL C-CT-1: **Provide a well-integrated and sustainable circulation and transit network that supports community-centered growth and equitably meets the mobility needs of all. (GP2020 Revised)**

Objective C-CT-1.1: Pay for development of the circulation and transit system through a combination of funding sources, including Federal and State programs, local bonds and taxes, development fees, and fair share formulae for cooperative funding of improvements.

Objective C-CT-1.2: Where alternate modes of travel are available, reduce the need for future automobile use by a combination of improvements and incentives that favor alternate modes over automobile use.

Objective C-CT-1.3: Reduce greenhouse gas emissions by minimizing future increase in vehicle miles travelled (VMT).

Objective C-CT-1.4: Require that circulation and transit system improvements be done in a manner that, to the extent practical, is consistent with community and rural character, minimizes disturbance of the natural environment, minimizes air and noise pollution, and helps reduce greenhouse gas emission.

Objective C-CT-1.5: Reduce travel demand by striving to provide jobs/housing balance of approximately 1.5 jobs per household, and encourage creation of jobs and housing in urbanized areas and transit centers.

Objective C-CT-1.6: Improve demand for transit by developing a growth management strategy encouraging projects in urbanized areas

that decrease distance between jobs and housing, increase the stock of affordable housing, and increase density.

The following policies shall be used to achieve these objectives:

Policy C-CT-1a: Where practical, locate and design improvements and new circulation and transit facilities to minimize disruption of neighborhoods and communities, disturbance of biotic resource and environmentally sensitive habitat areas (ESHAs), destruction of trees, and noise impacts. **(GP2020)**

Policy C-CT-1b: Require new development to reduce vehicle miles traveled to the maximum extent feasible. **(GP2020 Revised)**

3.2 Public Transit and Motor Vehicle Trip Reduction (GP2020)

GOAL C-CT-2: **Increase the opportunities, where appropriate, for transit systems, pedestrians, bicycling, and other alternative modes to reduce the demand for automobile travel.**

Objective C-CT-2.1: Increase ridership on public transit systems.

Objective C-CT-2.2: Increase the share of home based work or commute trips taken by public transit.

Objective C-CT-2.3: Coordinate bus transit services.

Objective C-CT-2.5: Design, implement, and maintain a transit system that serves seniors, persons with disabilities, youth and persons with limited incomes so that they may participate in a full range of activities.

Objective C-CT-2.7: Use Traffic Demand Management measures to reduce peak period congestion.

Objective C-CT-2.8: Accommodate bicycling and walking as a viable modes of transportation as an alternative to motor vehicle use through implementation of the Sonoma County Bicycle and Pedestrian Plan. (GP2020 Revised)

Objective C-CT-2.9: Develop bicycle and pedestrian facilities in order to promote bicycling and walking as transportation modes to connect neighborhoods and community services.

Objective C-CT-2.10: Use shoulders, paths, and bike lanes for other alternative transportation modes along existing streets, roads, and bicycle routes where consistent with public safety and the Vehicle Code.

The following policies shall be used to achieve these objectives:

Public Transportation Access and Facilities

Policy C-CT-2a: Provide efficient, affordable public transportation service in and to the Coastal Zone and require expansion of alternative modes of transportation where opportunities are identified. **(New)**

Policy C-CT-2b: Provide convenient, accessible transit facilities for youth, seniors, and persons with disabilities, and paratransit services as required by ADA. Promote efficiency and cost effectiveness in paratransit service such as use of joint maintenance facilities. **(New)**

Policy C-CT-2c: On transit routes, design the physical layout and geometrics of arterial and collector highways to be compatible with bus operations. **(GP2020)**

Policy C-CT-2d: Wherever feasible, require development projects to implement measures that increase the average occupancy of vehicles, such as: **(GP2020 Revised)**

(1) Vanpools or carpools, ridesharing programs for employees, preferential parking, parking subsidies for rideshare vehicles, and transportation coordinator positions, and

(2) Preferential parking space and fees for rideshare vehicles, flexibility in parking requirements. **(GP2020)**

Policy C-CT-2e: Encourage measures that divert automobile commute trips to transit whenever possible, including:

(1) Establishment of standards for site design to allow for transit access, bus turnouts and passenger shelters, pedestrian access ways between transit stops and buildings, secure bicycle lockers and shower facilities, complementary street layouts and geometrics that accommodate buses and bicycles, and transportation kiosks for tenants of business;

(2) Programs that promote transit use to existing job centers and schools, such as transit information centers, on-site sale of transit tickets and passes, shuttles to transit stations or stops, transit ticket subsidies for employees and students, private or subscription transit service, parking fees and transportation allowances. **(GP2020)**

Policy C-CT-2f: Require major employment centers and employers to provide facilities and Traffic Demand Management (TDM) programs that support alternative transportation modes, such as bike and shower facilities, telecommuting, flexible schedules, etc. These programs may apply to existing employers as well as to new

development. Establish measurable goals for these programs, and use a transportation coordinator that will provide information, select TDM measures, and monitor and report on program effectiveness. If voluntary TDM measures do not effectively reduce peak congestion, impose mandatory TDM measures by ordinance. **(GP2020)**

Bicycle and Pedestrian Facilities

Bicycle transportation facilities (bikeways) are classified as Class I, II, or III, as defined below.

Class I Bikeways are also known as multi-use paths. Class I bikeways provide bicycle travel on an all-weather surface within a right-of-way that is for exclusive use by pedestrians, bicyclists and other non-motorized modes. Class I bikeway surface must be compliant with provisions of the Americans with Disabilities Act (ADA). These bikeways are intended to provide superior safety, connectivity, and recreational opportunities as compared to facilities that share right-of-way with motor vehicles.

Class II Bikeways are on-street bike lanes and provide a striped and stenciled lane for one-way travel on either side of a street or highway. Unlike Class III bikeways (below), Class II bikeways have specific width, geometric, and maintenance standards.

Class III Bikeways are facilities shared with motor vehicles that provide connection to Class I and II bikeways through signage, and design, creating advantages for bicyclists not available on other streets. By law, bicycles are allowed on all roadways in California except on freeways when a suitable alternate route exists. Class III bikeways have signs reminding motorists of the California Vehicle Code requirements for safe passing and to be aware of cyclists using the road.

GOAL C-CT-3:	**Establish a safe and convenient bicycle and pedestrian transportation network, well integrated with transit, to reduce greenhouse gas emissions, increase outdoor recreational opportunities, reduce dependency on motor vehicles, and improve public health. (GP2020)**
Objective CT-3.1:	Design, construct and maintain a comprehensive Bikeways Network that links communities, coastal access points, and other major activity centers including, but not limited to, schools, public facilities, commercial centers, recreational areas and employment centers. **(GP2020)**
Objective CT-3.3:	Encourage pedestrian, bicycle, and transit oriented development. **(GP2020)**
Objective CT-3.4:	Increase use of non-motorized modes for commute trips by providing safe, convenient routes and adequate end of trip

facilities at workplaces, with an emphasis on facilities that have potential to close gaps in the network and/or reduce shorter trips. **(GP2020)**

Objective CT-3.5: Provide incentives for business and public facilities to increase the use of walking and bicycling by employees for both commuting and daily operations. **(GP2020)**

Objective CT-3.6: Reduce bicycle and pedestrian accidents per mile traveled by at least 2% per year. **(GP2020)**

Objective CT-3.7: Provide a diverse range of recreational opportunities through a well-designed network of bikeways, multi-use trails, sidewalks, and related support facilities. **(GP2020)**

Objective CT-3.8: Eliminate potential obstacles to walking and cycling by providing continuous and well-connected pedestrian walkways and bicycle facilities, and safe road crossings, with a focus on short trips within developed coastal communities. **(GP2020 Revised)**

Objective CT-3.9: Develop alternative mode trip and accident databases, to improve safety, allow regional coordination of improvements, and travel model development to improve the level of quantitative evaluation. **(GP2020)**

The following policies shall be used to achieve these objectives:

Policy CT-3a: Use the adopted Sonoma County Bicycle and Pedestrian Plan as the detailed planning document for existing and proposed bikeways and pedestrian facilities. **(GP2020)**

Policy CT-3b: Use the policies of the Bicycle and Pedestrian Plan whenever reviewing development projects to insure that projects are consistent with the Bicycle and Pedestrian Plan and incorporate necessary bicycle and pedestrian improvements identified in the Bicycle and Pedestrian Plan as a condition of project approval. **(GP2020)**

Policy CT-3c: BPAC shall be responsible for advising the Coastal Commission, Board of Supervisors, Planning Commission, Board of Zoning Adjustments, Project Review Advisory Committee, and County staff on the ongoing planning and coordination of the County's bicycle and pedestrian transportation network. **(GP2020)**

Policy CT-3d: The Regional Parks Department shall be responsible for establishing and maintaining Class I bikeways, and the Department of Transportation and Public Works (TPW) shall be responsible for establishing and maintaining Class II and III bikeways and pedestrian facilities along County rights-of-way in unincorporated areas. **(GP2020)**

Policy CT-3e: Regional Parks and TPW shall be responsible for periodically collecting bicycle and pedestrian counts at locations shown in the Bicycle and Pedestrian Plan consistent with Metropolitan Transportation Commission standards. The BPAC, in consultation with Regional Parks and TPW, shall review this data to determine effectiveness in applying such data for County improvement projects and update the count locations as needed. **(GP2020)**

Policy CT-3f: Revise County Traffic Guidelines to require that traffic studies identify impacts to existing and planned bicycle and pedestrian facilities. Consider development of bicycle and pedestrian facilities as mitigation measures for congestion and greenhouse gas emission impacts. **(GP2020)**

Policy CT-3g: Develop a Level of Service standard for identifying safety and connectivity of the bicycle and pedestrian transportation network that takes into consideration travel distance, potential bicycle and pedestrian transportation needs, potential for improved mode split with improved facilities, and existing network deficiencies. **(GP2020 Revised)**

Policy CT-3h: Use the Level of Service standard developed by **Policy CT-3g** to evaluate impacts to bicycle and pedestrian facilities that may result from discretionary projects, and identify corrections and/or improvements necessary to mitigate those impacts. **(GP2020)**

Policy CT-3i: Use the following standards for selection of new routes: **(GP2020 Revised)**

(1) Route shall be located along the most direct line of travel that is convenient and safe for cyclists and pedestrians. Less direct routes may be used near schools and recreational facilities if necessary to provide increased safety.

(2) Routes and bikeway design shall be ADA compliant.

(3) Avoid routes that cross driveways serving large retail and commercial uses. Where no alternative route can be identified, consider reconfiguration of on-street parking in these areas to improve safety.

(4) Pavement surface quality - Bikeways shall be free of surface defects that compromise bicycle safety. Utility covers and drains shall align with the bikeway surface and be located outside of the bikeway when feasible. Drainage grates shall be aligned perpendicular to the direction of travel in order to avoid catching bicycle wheels.

(5) Where bus stops are located along bikeways, design bus turnouts and the bike lane to conflicts between passengers, buses, and bicycles.

(6) Identification of a reliable source of funds to support maintenance and operation shall be considered before identifying a new Class I Bikeway alignment.

(7) Bikeway design and route selection shall maximize public benefit and safety per dollar invested.

Policy CT-3j: The most recent version of Chapter 1000 of the Caltrans Highway Design Manual, AASHTO's "Guide for the Development of Bicycle Facilities", and the "California Manual on Uniform Traffic Control Devices" (MUTCD) shall be used as general design guidelines for design, construction and maintenance of bikeways. **(GP2020)**

Policy CT-3k: In addition to the general standards found in **Policy CT-3j** above, use standards found in the most recently adopted Bicycle and Pedestrian Plan for selection, design, construction, and maintenance of Class I, II and III bikeways. **(GP2020)**

Policy CT-3l: Where an existing or proposed bicycle is located on a bridge or over a culvert, bicycle and pedestrian facilities shall be included as part of replacement or major maintenance. "Major reconstruction" is defined as any activity requiring a Coastal Development Permit and/or Streambed Alteration Agreement. Improvements are required regardless of priority of the remainder of the bicycle route served by the bridge or culvert. **(GP2020 Revised)**

Policy CT-3m: Where several bikeways of different classes follow a similar route or provide similar connectivity, the BPAC shall be consulted when construction of one facility appears to reduce the need or function of other facilities. **(GP2020)**

Policy CT-3n: Use the following criteria to determine consistency of public and private projects with the Bicycle and Pedestrian Plan: **(GP2020 Revised)**

(1) Development of lands traversed or adjoined by an existing or future Class I bikeway shall not preclude establishment of the bikeway, nor conflict with use and operation of the bikeway or adversely affect long term maintenance and safety of the facility.

(2) Construction, widening, or maintenance of roads with designated bikeways shall be consistent with design and maintenance standards for the appropriate class of bikeway as specified by the Bicycle and Pedestrian Plan.

Policy CT-3o: Design, construct, and improve bikeways consistent with the Bicycle and Pedestrian Plan Project Priority List. This list shall establish the priority, class, and location of Sonoma County bikeways projects. **(GP2020)**

Policy CT-3p: The following projects shall be referred to the BPAC for a determination of consistency with the Bicycle and Pedestrian Plan and to evaluate potential for creating hazards or barriers to walking or bicycling: **(GP2020)**

(1) Road widening projects.

(2) Road capacity improvement projects.

(3) Resurfacing, restoration, and/or rehabilitation of roads with existing or proposed Class II or Class III bikeways.

(4) Resurfacing, restoration, and/or rehabilitation of roads that include the installation of rumble strips, AC berms or similar barriers, and/or roadway dots in the shoulder area.

(5) Traffic calming improvements.

(6) Discretionary projects adjacent to existing or proposed Class I bikeways and/or roads with existing or proposed Class II or Class III bikeways.

(7) Discretionary projects anticipated to be conditioned with roadway improvements along existing or proposed Class I, II or III bikeways.

Policy CT-3q: Require that bikeway improvements be included as part of all road maintenance or improvement projects along road segments with existing or proposed bikeways to the maximum extent feasible. **(GP2020)**

Policy CT-3r: Where nexus exists, require private or public development to plan, design, and construct bicycle and pedestrian facilities to integrate with the existing and planned bicycle and pedestrian network. **(GP2020)**

Policy CT-3s: Where discretionary projects are found to create additional demand for bicycle travel, require the project to directly provide or participate in the funding of bikeway improvements such as gap closures, shoulder widening, safety improvements and signage that will improve bicycle access to destinations located within 3 miles of the project site. **(GP2020)**

Policy CT-3t: Require mitigation either through in-lieu fees, or development of alternative facilities that have been recommended by the BPAC, when development projects or road improvements are anticipated to result in a loss of existing bicycle and pedestrian facilities or jeopardize development of future facilities identified in the Bicycle and Pedestrian. **(GP2020)**

Policy CT-3u: Develop a maintenance reporting system for bikeways with a central point of contact that can be used to report, track, and respond to routine bicycle and pedestrian maintenance issues in a timely manner. **(GP2020)**

Policy CT-3v: Require road construction projects to minimize their impacts on bicyclists and pedestrians through the proper placement of construction signs and equipment and by providing adequate, safe, well-marked detours. Where it is safe to do so, allow bicyclists and pedestrians to pass through construction areas in order to avoid

detours. Where two-way bicycle and pedestrian travel can be safely accommodated in a one-way traffic control zone, adequate signage shall be placed to alert motorists of bicycles and pedestrians in the lane. **(GP2020)**

Policy CT-3w: Encourage cooperation between Caltrans, Regional Parks, TPW, SCTA, and the Coastal Commission to close gaps in the bikeway network and ensure the system is constructed, and maintained. **(GP2020 Revised)**

Policy CT-3x: Require dedication or purchase of right of way for Class I bikeways when a nexus can be established between the proposed development and the need for bikeways in the affected area. **(GP2020)**

Policy CT-3y: Provide adequate bicycle parking as part of all new school, public transit stops, public facilities, and commercial, industrial, and retail development following standards established in adopted Bicycle and Pedestrian Plan. **(GP2020)**

Policy CT-3z: Encourage local and regional transit agencies to accommodate bicycles on buses. **(GP2020)**

Policy CT-3aa: The BPAC shall review bicycle parking at transit facilities and accommodations to carry bicycle on-board buses every 2 years to assure that anticipated demand for parking and on-board accommodations can be met. **(GP2020 Revised)**

Policy CT-3bb: Collect bicycle and pedestrian accident data in the coastal zone on an annual basis. The BPAC shall review this data and identify high risk areas, prioritizing improvements, or additional needs for future accident data collection. **(GP2020)**

Policy CT-3cc: Give highest priority to safety related improvements of pedestrian facilities in the vicinity of schools, public transit facilities, and crossings in communities. **(GP2020)**

Policy CT-3dd: Require pedestrian-oriented street design in local communities. **(GP2020)**

Policy CT-3ee: Require centrally located shared parking in local communities whenever feasible for commercial uses rather than requiring individual businesses to provide separate parking areas. **(GP2020)**

Policy CT-3ff: Where discretionary projects are found to create additional demand for pedestrian travel, require the project to directly provide or participate in the funding of pedestrian improvements such as sidewalks, gap closures, steps, safety improvements, and/or trails that will improve pedestrian access to destinations located within 2 miles of the project site. **(GP2020)**

Policy CT-3gg: Provide high-visibility crosswalk marking at all pedestrian crossings. Wherever possible, install pedestrian signalization, refuge islands and signage warning vehicles to stop for pedestrians and watch for cyclists. **(GP2020)**

Policy CT-3hh: Inventory safety needs/hazards along routes to and around schools in order to identify improvements necessary to improve safety and create a priority list of projects necessary to correct these hazards. **(GP2020)**

Policy CT-3ii: Encourage school districts to participate in providing safe bicycle and pedestrian connections that serve students from surrounding neighborhoods when constructing or improving schools. Encourage school districts to provide secure bicycle parking areas for students, faculty, and staff. Require private schools to provide continuous pedestrian pathways and bicycle facilities from adjacent residential communities to the school grounds. **(GP2020)**

Policy CT-3jj: Coordinate Bicycle Safety Education Programs at schools, with law enforcement agencies, school districts, advocacy groups, local bicycle shops, and other interested organizations. The program shall include traffic rules, bicycle handling skills, the importance of good helmets, lights and reflectors, bicycling clothing, and bicycle maintenance courses in cooperation with local bicycle shops and organizations. **(GP2020)**

Policy CT-3kk: Distribute bicycle and pedestrian safety, educational, and promotional materials to students, parents, faculty, and staff at school orientations. Consider other opportunities for public education such as drivers training and citation diversion programs. **(GP2020)**

Policy CT-3ll: Support constructive efforts from advocacy groups to address bicycle and pedestrian transportation issues. **(GP2020)**

Policy CT-3mm: Provide the option of flexible work schedules to County employees in order to accommodate commuting by bicycle, walking, or transit. **(GP2020)**

Policy CT-3nn: Develop a Guaranteed Ride Program for County workers and employees of other employers with participating programs who regularly bicycle, walk, vanpool, carpool, or use transit for their trip to work. The program would encourage use of alternative transportation modes by providing free transportation in the event of personal emergencies, illness, or unscheduled overtime. **(GP2020)**

Policy CT-3oo: Consider establishing greenhouse gas impact fees for new development. Use a portion of this fee to fund planning, design, and construction of bikeways and pedestrian facilities. **(GP2020)**

Policy CT-3pp: Work with Federal, State, regional, and local agencies and any other available public or private funding sources to secure funding for bikeways and pedestrian facilities. **(GP2020)**

Policy CT-3qq: Encourage coordination with Caltrans to fund design, construction and maintenance of bikeways and pedestrian facilities. **(GP2020)**

Policy CT-3rr: Develop a long range strategy to provide long term funding necessary to maintain and operate the Class I bikeway network. **(GP2020)**

3.3 Road Capacity

GOAL C-CT-4: **Provide and maintain a highway system capacity that serves projected travel demand and creates a transportation network that equitably meets the mobility needs of all, including pedestrians, bicyclists, children, students, persons with disabilities, users of public transportation, together with motorists and movers of commercial goods. (GP2020 Revised)**

Objective C-CT-4.1: Maintain an LOS C or better on roadway segments unless a lower LOS has been adopted.

Objective C-CT-4.3: Allow the above LOS to be exceeded if it is determined to be acceptable due to environmental or community values, or if the project(s) has an overriding public benefit that outweighs the lower Levels of Service and increased congestion.

Objective C-CT-4.4: Develop a Heritage Road Program for coastal roadways. This program will create special design guidelines to protect the unique character of these roads while maintaining safety. (GP2020 Revised)

The following policies shall be used to achieve these objectives:

Establishing and Evaluating Roadway Capacities

Policy C-CT-4a: Use the LOS established in **Objectives 3.1 and 3.3** to determine whether or not roadway segment congestion would exceed the desired LOS on the road system. In cases where a roadway segment is designated as LOS F, a particular matter (PM) peak volume to capacity ratio of 1.2 is the acceptable LOS. **(GP2020)**

Policy C-CT-4b: Use area and/or project traffic analyses to determine if intersections meet the LOS standards of **Objectives C-CT-3.2 and C-CT-3.3**. Based on this analysis, identify and implement intersection improvements needed to achieve LOS D. **(GP2020)**

Transportation Design Guidelines

Policy C-CT-4c: Use the American Association of State Highway Transportation Officials (AASHTO) functional classification system and guidelines for geometric design for the highway network. **(GP2020 Objective became policy)**

Policy C-CT-4d: Road design and maintenance activities shall be consistent with the principals of the Complete Streets Act of 2008 and consider the mobility needs of all road users on an equitable and equal basis. **(New)**

Policy C-CT-4e: Designate and design Rural Principal and Minor Arterial Roads as highway routes that carry large volumes of intercity traffic and that place priority on the flow of traffic rather than on access to property. The following policies apply to Urban and Rural Arterials:

(1) Work with Caltrans to modify Caltrans design standards (i.e. Design Exceptions) for State Highways 1 and 116 to address community compatibility and protection of Coastal resources when conflicts arise.

(2) Design Principal and Minor Arterial Roads to discourage access from abutting parcels and to prohibit such access if reasonable access is available elsewhere, to encourage driveway consolidations, to avoid parking during peak travel periods, and to provide turn deceleration and acceleration lanes at intersections where warranted.

(3) Set and enforce access standards for new driveways and other encroachments to the Arterial Road system. These standards may include functional layout, location, and spacing requirements to minimize side frictions.

(4) In agricultural areas, include measures such as road signs, wider shoulders, and turnouts or over/under passes to provide safer roads for the agricultural industry, residents, and visitors where compatible with the character of the area and not impeding public access. **(GP2020)**

Policy C-CT-4f: Designate and design Rural Major and Minor Collector Roads as routes that are intended to carry the internal traffic of a local area from the local road system to Arterial Roads and provide access to property. Collector Roads that are designated for traffic calming improvements are primarily intended to serve the local community. The following policies apply to Rural Collectors:

(1) Allow access from abutting parcels and on-street parking.

(2) Design traffic calming improvements to accommodate local circulation, to accommodate emergency vehicles, to reduce speeds, to promote the safety of pedestrian and bicycle traffic, and to discourage truck traffic and through traffic, particularly during peak periods.

(3) In agricultural areas, include measures such as road signs, wider shoulders, and turnouts or over/under passes to provide safer roads for the agricultural industry, residents, and visitors where compatible with the character of the area. **(GP2020)**

Policy C-CT-4g: Designate and design Local Roads as routes that are intended to provide access to property and to carry local traffic to Collector Roads. Local Roads that are designated for traffic calming improvements are primarily intended to serve the local community. The following policies apply to Local Roads:

(1) Design local roads for reasonable access by emergency and service vehicles.

(2) Design traffic calming improvements to accommodate local circulation, to accommodate emergency vehicles where possible, to reduce speeds, to promote the safety of pedestrian and bicycle traffic, and to discourage truck traffic and through traffic, particularly during peak periods.

(3) When practical, locate horizontal and vertical road alignments to correspond to natural topography.

(4) In agricultural areas, include measures such as road signs, wider shoulders, and turnouts or over/under passes to provide safer roads for the agricultural industry, residents, and visitors where compatible with the character of the area and with protecting visual resources and public access. **(GP2020)**

Roadway Safety Improvements

Policy C-CT-4h: When a nexus is identified between a project and the need for safety improvements, require the safety improvements as a condition of approval. **(GP2020 Revised)**

Policy C-CT-4i: In general, safety improvements to Arterial Roads should be given a higher priority for funding than capacity improvements to Collector and Local Roads that may serve as alternate routes to those Arterial Roads. **(GP2020)**

Policy C-CT-4j: Consider intersection management improvements at key intersections throughout the coast as needed to address intersection congestion and long delays for turning movements. These may include installation of traffic signals, signal timing, re-striping, lengthening, turn lane additions, or other improvements, provided the improvements are consistent with the applicable road classifications and protection of coastal resources. **(GP2020/Existing LCP)**

Policy C-CT-4k: Construct improvements such as realignment, signalization, roundabouts, turn restrictions, one-way streets, and traffic calming at the following intersections to improve safety at the following intersections: **(GP2020/Existing LCP revised)**

(1) Bay Flat Road/Bodega and Cypress Dunes Campgrounds (Sonoma Coast State Beach)

(2) Bay Flat Road/Eastshore Road

(3) State Highway 1/Eastside Road

(4) State Highway 1/Taylor Street

(5) State Highway 1/ Bay Hill Road **(Existing LCP Revised)**

Policy C-CT-4l: Relocate Highway 1 along Gleason Beach (Postmile 15.0 - 15.8) inland sufficient distance to avoid hazards created by bluff retreat and sea level rise. **(New)**

Policy C-CT-4m: Construct the following sets of road improvements to increase the capacity and safety of State Highway 1 in Jenner:

(1) *State Highway 1* – from western property line of assessor's parcel number (APN) 099-150-013 (10990 State Highway 1) to 200 feet from intersection with Burke Avenue; and Burke Avenue - 200 feet: road realignment and widening, curbing, turn lane for parking and Burke Avenue, one-way parking circulation, and parking restrictions.

(2) *State Highway 1* – about eastern bank of Jenner Creek to about opposite northern property line of APN 099-113-012 (10469 Riverside Drive); Riverside Drive - about 65 feet; and 65 Willig Drive - about 80 feet: road widening, turn lanes, and parking restrictions. **(Existing LCP Revised)**

(3) *Intersection of Highway 1 and 116* – Roundabout, minor realignment to provide more sight distance and/or signalization to improve safety. Consider minor realignment consistent with protection of Coastal resources. **(New)**

Policy C-CT-4n: Provide turn lanes at The Sea Ranch intersections listed below. An intersection improvement of lower priority could be constructed before an intersection improvement of higher priority if funding is available.

(1) *Priority I*

The Stables and North Recreation Center entrance (already widened)
Annapolis Road
Longmeadow Road
Moonraker and Whalebone Reach

(2) *Priority II*

Lodge Entrance

(3) *Priority III*

Leeward Spur
Deerfield Road
Breaker Reach
Vantage Road
Pine Meadow
Whitebluff Road
Headlands Reach
Navigators Reach
Lodge Entrance and Halcyon **(Existing LCP Revised)**

Policy C-CT-4o: Repair and maintain Bay Hill Road to provide a safe access to homes and farmlands east of Bodega Bay. **(Existing LCP)**

Policy C-CT-4p: Encourage safety improvements on State Highway 116-River Road, Bodega Highway and Petaluma-Valley Ford Road to improve safety on east-west roads that connect State Highway 1. **(Existing LCP)**

Policy C-CT-4q: Implement the following capacity and safety improvements along State Route 1:

(1) Where visibility and prevailing traffic speeds create potential hazards, consider measures to enhance safety and maintain public access. Remove parking areas or small turnouts where safety is increased by removal, except where these parking areas and turnouts are associated with an existing or future coastal access point. (Existing LCP Revised)

(2) Restrict turning movements at parking areas where necessary to promote safe entry and exit.

(3) Construct turning lanes and entry improvements at parking areas listed in The Public Access Plan. **(Existing LCP Revised)**

Policy C-CT-4r: Consider traffic calming improvements in the unincorporated communities of Bodega, Bodega Bay, Jenner, and Timber Cove. **(GP2020 Revised)**

Policy C-CT-4s: While providing for capacity and safety improvements, ensure that State Route 1 shall remain a scenic two-lane highway within rural areas. **(New)**

3.4 Phasing and Funding of Improvements Policy

GOAL C-CT-5: **Integrate the funding and development of planned circulation and transit system improvements with countywide transportation planning efforts and land use planning and development approval. (GP2020)**

Objective C-CT-5.1: Equitably allocate the costs of circulation and transit system improvements among the responsible public and private entities responsible for creating the need for system improvements.

Objective C-CT-5.2: Work with the SCTA and Federal and State governments to obtain the necessary funding for the planned circulation and transit system.

Objective C-CT-5.3: Maintain acceptable Levels of Service as set forth in this Element by implementing funding strategies for planned improvements.

The following policies shall be used to achieve these objectives:

Policy C-CT-5a: Review and condition development projects to assure that the LOS and/or public safety objectives established in **Policies C-CT-4a** and **C-CT-4b** are being met. If the proposed project would result in an LOS worse than these objectives, consider denial of the project unless one or more of the following circumstances exists:

(1) The improvements needed to meet the LOS and/or public safety objectives will be completed prior to occupancy of the use;

(2) Funding is identified and committed to completion of the needed improvements; or

(3) A fee or fair share contribution has been established for the needed improvement that will fully fund the project's fair share of the future improvements. **(GP2020)**

Policy C-CT-5b: Require that new development provide project area improvements necessary to accommodate vehicle and transit movement in the vicinity of the project, including capacity improvements, traffic calming, right-of-way acquisition, access to the applicable roadway, safety improvements, and other mitigation measures necessary to accommodate the development without inhibiting public access. **(GP2020 Revised)**

Policy C-CT-5c: Carry out on an as needed basis projects that enhance traffic safety but do not significantly increase capacity, including but not limited to traffic control devices (signals and signs), curvature reduction, turn lanes at intersections, shoulder improvements, reconstruction, and resurfacing. **(GP2020)**

Policy C-CT-5d: Continue to implement traffic mitigation fees. **(GP2020)**

4. IMPLEMENTATION PROGRAMS

4.1 Circulation and Transportation Implementation Programs

Program C-CT-1: Monitor the effectiveness of the planned circulation and transit system on an ongoing basis. Cooperate with the Sonoma County Transportation Authority (SCTA) to establish and maintain an ongoing Countywide traffic modeling program that:

(1) Maintains a coordinated land use database on an annual basis for cumulative impact analysis of the circulation and transit system;

(2) Assesses the level of service (LOS) and how well planned improvements are keeping pace with Countywide growth and development;

(3) Establishes the nexus for allocating fair share funding of regional and subregional improvements;

(4) Identifies the impacts of projects and appropriate mitigation measures on the circulation and transit system;

(5) Assists in the planning of detailed operation improvements in individual communities, and

(6) Is capable of modeling weekend and off-peak travel demand in order to plan for tourism and special event traffic.

Consider the use of moratoria or other growth management measures in areas where the monitoring program shows that the LOS objectives are not being met due to lack of improvements. **(GP2020)**

Program C-CT-2: Monitor traffic volumes on County-maintained road segments, and work with Caltrans on similar State Highway 1 segments that are projected to experience unacceptable Levels of Service during peak weekend periods, particularly in the summer and fall months. Assemble these data for use in future assessment of development project impacts on weekend traffic patterns. **(GP2020)**

Program C-CT-3: Work with transit providers to improve bus service between Bodega Bay and Jenner with regular connections to inland communities and job centers. Coordinate routes, schedules, and fares among transit providers to make transfers convenient between the various transit systems, especially during commute periods. **(GP2020 Revised)**

Program C-CT-4: Encourage measures to modify the timing of peak commute and school trips to reduce congestion, including reduced work weeks and flexible, variable,

or staggered work hours. Consider adoption of standards requiring TDM programs and telecommuting for new businesses and employment centers. **(GP2020)**

Program C-CT-5: Classify and designate roadways according to the functional classifications of the AASHTO manual. **(GP2020)**

Program C-CT-6: Establish Heritage Road Program to preserve public roads with unique scenic, historic, recreational, cultural, archeological and/or natural qualities that may be compromised if the road is fully improved to meet current road standards. As part of this program, adopt special design standards to balance necessary improvements, safety, and maintenance with the unique character of these roads. **(GP2020 Revised)**

Program C-CT-7: Based upon an established nexus, assign responsibility for funding transportation improvements to new development in the affected area by assessing development fees or fair share contributions. **(GP2020 Revised)**

4.2 Other Initiatives

Other Initiative C-CT-1: Coordinate with Caltrans, California State Department of Parks and Recreation, the California Coastal Commission, and other appropriate entities in developing and implementing guidelines for expediting the review and approval of State Route 1 repair and maintenance activities consistent with the policies of the Local Coastal Plan. **(New)**

Other Initiative C-CT-2: Encourage ongoing development of the Safe Routes to School program by coordinating efforts of advocacy groups, school districts, and County departments. **(GP 2020)**

Other Initiative C-CT-3: Encourage and participate in joint efforts by the various transit operators to coordinate services by reducing route duplication, coordinating schedules to increase transfer potential, encouraging joint transit fare prepayment, joint marketing of transit services, and discounting fares for intersystem transfers. **(GP2020)**

Other Initiative C-CT-4: Encourage Sonoma County Transit to coordinate and cooperate with Mendocino Transit Authority and Marin Transit in improving and expanding bus service for Sonoma County coast visitors and residents. **(New)**

Other Initiative C-CT-5: Work with transit agencies to maximize funding from Federal and State governments to address existing deficiencies, improve safety, and support ongoing maintenance of the circulation and transit system. **(GP2020)**

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

PUBLIC FACILITIES AND SERVICES 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
September XX, 2019

PUBLIC FACILITIES AND SERVICES ELEMENT

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PUBLIC FACILITIES AND SERVICES ELEMENT

1. INTRODUCTION

1.1 Purpose

The Public Facilities and Services Element addresses nine types of public services mainly related to the physical development of the Sonoma County coast. These services include: water, wastewater disposal, public education, fire protection, law enforcement, medical, solid waste management, public utilities, and youth and family services.

The purpose of this Element is to lay the groundwork for future decisions related to these public services and infrastructure, to establish future policy regarding providing facilities for these services, and to integrate public service concerns into land use decision making. This Element is designed to increase the likelihood that public services will be available when needed to serve the residents and businesses of the Sonoma County coast.

The Public Works policy of the 1976 California Coastal Act allows, consistent with the General Plan, development of public works capacity to accommodate needs identified by the Local Coastal Plan. Where the capacity of basic public works is limited, development of land uses encouraged by the Coastal Act, such as coastal dependent industry, receive priority over other uses.

1.2 Relationship to Other Elements

Highway and public transportation needs are identified and addressed in the Circulation and Transit Element. Water supply and water quality issues are addressed in the Water Resources Element. Needed park and recreation facilities are identified and addressed in the Public Access Element.

1.3 Scope and Organization

The Public Facilities and Services Element describes the current status of public services in terms of service capacity and demand in relation to projected growth. It is divided into sections providing policy direction for each type of public facility or service. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives," that support the provision and maintenance of adequate public facilities and services within the Coastal Zone.

2. GENERAL POLICY FOR PUBLIC FACILITIES AND SERVICES

Goal C-PF-1: **Ensure that water supply and wastewater treatment and disposal, park and recreation, public education, fire protection and emergency medical, law enforcement, medical, and solid waste management services and public utility sites are available to meet the future needs of Coastal Zone residents and visitors.**

Objective C-PF-1.1: Limit water supply and wastewater treatment and disposal, parks and recreation, public education, fire protection and emergency medical, law enforcement, solid waste management, and public utilities facilities and services to those needed for projected demand from existing development.

Objective C-PF-1.2: Help County Service Areas and Special Districts to provide needed public facilities and services.

The following policies, in addition to those in the Water Resources and Open Space and Resource Conservation Elements, shall be used to achieve these objectives:

Policy C-PF-1a: Water supply and wastewater treatment and disposal, parks and recreation, public education, fire protection and emergency medical, law enforcement, solid waste management, and public utilities facilities and services shall be planned, designed, and constructed in accordance with projected demand from existing development as identified by Local Coastal Program (LCP) land use policies. **(GP2020)**

Policy C-PF-1b: New Special Districts shall only be established within defined Urban Service Areas and Rural Community Boundaries as designated in the Local Coastal Plan. Special districts shall only be formed or expanded where assessment for, and provision of, service would not induce new development inconsistent with policies of the LCP. **(Existing LCP Revised)**

3. WATER AND WASTEWATER TREATMENT AND DISPOSAL SERVICES POLICY

On the Sonoma County coast, development is concentrated in Urban Service Areas and Rural Communities. The Coastal Act mandates that new development be located in close proximity to developed areas with public facilities and services. To delineate the areas appropriate for development in the Coastal Zone, Urban Service Areas have been established on the Local Coastal Plan Land Use Map and include The Sea Ranch and Bodega Bay. Rural Community Boundaries, areas that were previously subdivided or

developed with public water and private Onsite Waste Water Treatment Systems (OWTSs), have also been established on the Land Use Map and include Duncans Mills, Jenner, Sereno del Mar/Carmet, Salmon Creek, Timber Cove, and Valley Ford.

On the coast expansion of public sewer beyond the boundaries of Urban Service Areas and expansion of public water or public sewer beyond the boundaries of Rural Communities are prohibited except under specific conditions. Development infill is expected where water and OWTSs or sewer regulations can be met. Part of the development infill strategy is to encourage consolidation of adjacent lots in high hazard areas or visually and environmentally sensitive areas in accordance with Coastal Act policies to protect views and coastal resources and minimize public safety hazards.

The California Coastal Act mandates that new development be located in close proximity to developed areas with public services and facilities. In order to delineate the areas appropriate for development, an Urban Service Area Boundary has been established on the Bodega Bay and Sea Ranch Land Use Plan Maps. Expansion of public sewer beyond this area is prohibited except as allowed by policies in the Public Facilities and Services Element. The Local Coastal Plan also establishes Rural Community Boundaries in areas that were previously subdivided or developed with public water and private OWTSs. Extension of public water beyond or public sewer into these areas is prohibited except under specific conditions.

3.1 Water Services

An adequate and healthful water supply is essential if the Sonoma County coast is to sustain its residential population and its economic stability. As noted above, the Water Resources Element establishes goals, objectives, and policies addressing a broad range of water-related issues, including water quality and supply pertaining to private wells and public water systems. This section is intended to address issues regarding improving water systems for moderate expansion of planned communities, developing new water systems, and extending water services to new areas not currently served.

The Sonoma Coast is a water scarce area, and developing reliable water sources for urban development is very difficult. Several wells or springs may be needed to produce even modest water yields. Most of the water systems on the coast are small and substandard in some respect. The main problems are insufficient water and limited financial capability. Water sources are generally wells or creeks which may run low in summer months when demand is highest. Most coastal wells produce only a limited amount of water at any time due to the geology of the area. The owners of small water systems cannot afford extensive search for and development of additional water supplies.

No additional sources of water supply appear feasible for the communities of Jenner, Rancho del Paradiso, Bridgehaven, West Beach, and Valley Ford. The Salmon Creek subdivision has marginally adequate water supplies for existing development. If adequate water supplies are not available, some lots in the existing subdivisions may be unbuildable. Water system development and improvement continues at The Sea Ranch, Timber Cove, Sereno del Mar, Carmet, and Bodega Bay. Water supplies sufficient for subdivision buildout or moderate additional expansion appears limited to these five areas and Duncans Mills.

Maintaining the quality of water in small water systems, especially surface springs and storage tanks, is problematic because it requires periodic monitoring and testing. Several older small water systems are poorly designed or maintained resulting in inadequate water pressure. The firefighting capability of most of the systems is inadequate because of limited water supplies or low water pressure.

The Sonoma County coast has about 16 water systems that fall under the regulatory authority of the State Water Resources Control Board (Water Resources Board) as a "public water system". A public water system is a system for providing piped water to the public for human consumption that has 15 or more service connections or regularly services at least 25 individuals daily at least 60 days out of the year. The Water Resources Board regulates three main types of public water systems, defined below.

(1) **Community:** a public water system that has 15 or more service connections or regularly services at least 25 resident individuals at least 60 days of the year. This category includes subdivisions, mutual water companies, and mobile home parks.

(2) **Non-Community Transient:** a public water system that serves at least 25 non-resident individuals daily at least 60 days of the year, but no more than 24 year-round residents. This category includes restaurants, campgrounds, small wineries, and motels.

(3) **Non-Community Non-Transient:** a public water system that serves as least 25 of the same persons over 6 months of the year. This category includes schools and larger places of employment with more than 25 employees.

The public water systems on the County coast range in size from The Sea Ranch Water Company, a Community system with 1,684 connections; to the Blue Heron Restaurant, a Non-Community Transient system with one connection. **Table C-PF-1** provides general information about the public and private water systems on the coast. On occasion, operator inattention or lack of funding leads to public water system failure and a request for County takeover of the water system. County management of the water system can improve reliability, but funding may still be lacking. In relying on small water systems to support development, careful consideration should be given to long-term management issues.

Table C-PF-1: Characteristics of Public Water Systems

Water System	Type	Uses Served	# Connections/ Lots Served	# Vacant Lots or Lots Not Served	Source of Water Supply	Adequacy of Water Supply
Bodega Bay Public Utilities District	Community	Residential Commercial Industrial	1,058	194	Salmon Creek (2 wells) Roppolo wellfield - 3 wells Sand Dunes wellfield - 2 wells	Adequate
Fort Ross School District	Non-Transient Non-Community	School	9	N/A	Groundwater well onsite	Adequate
Sonoma County County Service Area (CSA) 34 - Jenner	Community	Residential Restaurant Hotel/Motel Public (297 parcels total)	136	174	Jenner Creek	Adequate
Sonoma County CSA 41 - Salmon Creek	Community	Residential Public (130 parcels total)	99	36	Groundwater well on Maryana Drive; Spring - general subsurface flow of water from hills east of Salmon Creek; water collection and treatment system improvement project constructed in 2014	Adequate since water collection and treatment system improvement project constructed in 2014
Timber Cove County Water District	Community	Residential	176	129	Timber Cove Creek, water stored in reservoir at 22108 Timber Cove Road constructed in 1997	Reservoir volume adequate to supply 4 months water supply at build-out
Blue Heron Restaurant	Transient Non-Community	Restaurant	1	N/A	Sweetwater Springs Mutual Water Company	Adequate
Bridgehaven Trailer Park	Community	Recreation	31	N/A	Spring about 150 yards uphill from water treatment building at trailer park Stream about 100 yards from south end of bridge at Jenner (from Red Hill)	Adequate

Table C-PF-1: Characteristics of Public Water Systems (continued)

Water System	Type	Uses Served	# Connections/ Lots Served	# Vacant Lots or Lots Not Served	Source of Water Supply	Adequacy of Water Supply
Casini Ranch Campground Water System	Transient Non-Community	Recreation	14	N/A	2 wells 1 spring	More than adequate
Duncans Mills Camping Company **Duncans Mills Trading Company**	Transient Non-Community Transient Non-Community	Recreation Restaurant Retail	125	N/A	Well 1,400 feet from Russian River	Adequate
Fort Ross Lodge & Store	Transient Non-Community	Restaurant Hotel/Motel	2	N/A	Well below lowest unit of lodge	More than adequate
Rancho Del Paradiso - California Water Service Company	Community	Residential	58	8	Intertie pipeline to Sweetwater Springs Water District facility in Monte Rio constructed in 2006	Adequate since 2006 intertie constructed
Russian River Utility *Sereno Del Mar Water Company* **- Sereno del Mar**	Community	Residential	168	9	9 wells - two gallery inlets from underflow of Scotty Creek, seven wells 70 feet deep; One spring about half mile east	Adequate
Russian River Utility *Carmet-by-the-Sea Mutual Water System* **- Carmet**	Community	Residential	64	0	2 horizontal wells on hillside east of subdivision	Adequate
Russian River Utility *Sereno Del Mar Water Company* **- Gleason Beach**	Community	Residential	20	5	50 meter wells and Carmet-by-the-Sea springs	Adequate

Table C-PF-1: Characteristics of Public Water Systems (continued)

Water System	Type	Uses Served	# Connections/ Lots Served	# Vacant Lots or Lots Not Served	Source of Water Supply	Adequacy of Water Supply
The Sea Ranch Water Company	Community	Residential Commercial	1,857	605	Gualala River	Adequate
Timber Cove Inn	Non-Transient Non-Community	Hotel/Motel	3	N/A	Timber Cove County Water District	Adequate
Valley Ford Water Association	Community	Residential Commercial	19	0	3 wells south of community along north side of Estero Americano	Poor water quality – see above under "Public Water Systems"
Stillwater Cove Regional Park	Transient Non-Community	Recreation (campground w/22 sites, Ranger residence, office)	2	0	Canyon well – winter & spring (next to Regional Parks office driveway) Creek well – summer & fall (next to Stockholm Creek)	Adequate

3.1.1 Public Water Systems

All public water systems on the Sonoma County coast have adequate water supply and quality for all existing and planned development (per consultation with water system operators), with the exception of the Valley Ford Water Association (Water Association). Their water supply is of poor quality. Quarterly nitrate monitoring shows the maximum nitrate level is frequently exceeded, and monthly bacteriological sampling shows frequent positive total coliform and occasional E. coli detections at all three wells. The Water Association is in the process of submitting an application to the Drinking Water State Revolving Fund for a construction project that includes connection to a well, installation of a proposed treatment facility, and disconnection from the existing wells. In addition, the North Coast Regional Water Quality Control Board is planning to conduct a nitrate source investigation in the Valley Ford area (State Water Resources Control Board, personal communication, April 2017).

Bodega Bay Public Utility District

The Bodega Bay Public Utility District (Bodega Bay District) provides water service to the residential, commercial, and industrial development in Bodega Bay, including the Bodega Harbour Subdivision, U.C. Davis Bodega Marine Laboratory, U.S. Coast Guard, County Doran Park, County Westside Park, and State Dunes Campground. Its water service area is slightly greater than its sewer service area. Most of the vacant lots in the Bodega Bay District are in the Bodega Harbour and Harbor View subdivisions. The sources of water for the District are the Sand Dunes wellfield (north of Bay Flat Road on the north end of the harbor) and Roppolo wellfield (west of Bay Flat Road on the west side of the harbor), and two wells next to Salmon Creek north of Bodega Bay. Saltwater intrusion has limited the Roppolo wellfield to less than full capacity. The State Department of Water Resources prohibits use of the wells next to Salmon Creek when water depth in the creek drops below ten inches.

The most recent Municipal Service Review of the Bodega Bay District by the Local Area Formation Commission (LAFCO) was in 2004 and identified 1,797 existing Residential Unit Equivalents (RUEs). Most of this capacity went to the Harbor View development of 84 units, including 14 affordable units, developed by Burbank Housing Development, Inc. The Bodega Bay District's 1998 Master Water Plan identifies the need for a new well and additional water storage to serve the future demand from the previous Bodega Bay Phase I Land Use Plan. The Bodega Bay District constructed a 500,000-gallon water storage tank on District property in July 2003. Permits were issued in 2016 for a new well and water treatment plant off Bay Flat Road, but as of March 2017 they were not in operation.

Duncans Mills Trading Company and Camping Company

Duncans Mills Trading Company and Camping Company provides water to the Duncan Mills Camping Club Campground, retail shops, and restaurant at Duncans Mills. The source of the water is a well located 1,400 feet from the Russian River.

Russian River Utility – Sereno del Mar Water Company and Carmet-by-the-Sea Mutual Water System

As of 1999 Russian River Utility owns and manages the Sereno del Mar Water Company, a private investor-owned water company; and operates under a contract with the Carmet-by-the-Sea Mutual Water System, a non-profit corporation. Located on State Highway 1 between Jenner and Bodega Bay, the Sereno del Mar Water Company was established in 1970 when the Sereno del Mar subdivision was developed. The Gleason Beach subdivision was added to its service area in 1976. The adjacent Carmet-by-the-Sea Mutual Water System receives treated surface water from the Sereno del Mar Water Company which serves the Carmet subdivision. In 2007 the Sereno del Mar Water Company served 124 customers and had issued permits for 168 water service connections.

The Sereno del Mar Water Company financed construction of a new 212,000-gallon storage tank and source wells completed in 1999. Russian River Utility financed renovation of the surface water treatment plant, a state-of-the-art micro-filtration membrane facility completed in 2001; and Carmet-by-the-Sea Mutual Water Company financed consolidation of the water treatment services at Sereno del Mar completed in 2003. The two companies now operate a joint water source treatment and storage system but are managed separately.

The 1981 Local Coastal Plan addressed the need for the Sereno Del Mar Water Company to prove an adequate water supply for buildout of the Sereno del Mar, Carmet, and Gleason Beach subdivisions pursuant to a State Department of Health Services moratorium limiting the total number of allowable water service connections to 109. In April 2005 the Sereno del Mar Water Company proved an adequate water supply for connections to all existing and future development in these subdivisions.

The Sea Ranch Water Company

The Sea Ranch is a planned community served by The Sea Ranch Water Company. The Water Company's service area encompasses the entire Sea Ranch Association with 2,289 lots including, seven non-Association residential customers, 24 commercial customers. The water supply has a production capacity of 1.58 million gallons per day (MGD) and a treatment capacity of 1.01 MGD. Water Company staff estimate that

maximum daily demand at buildout (2,289 units) will be 0.80 MGD, and indicate that based on present water consumption and population projections, the Water Company will be able to meet the present and future demand for The Sea Ranch.

Timber Cove County Water District

The 1981 Local Coastal Plan addressed the need for the Timber Cove Mutual Water Company to meet current health standards for water system design and supply so that the County can allow over 100 water connections to the Timber Cove subdivision. On May 7, 1984 the Timber Cove Mutual Water Company was terminated and the Timber Cove County Water District was formed. On February 9, 1995 the County Board of Zoning Adjustments granted a Coastal Permit for construction of a water reservoir with capacity for 30 acre-feet, small water treatment plant, and water pipe on Timber Cove Road. These water system improvements were constructed in 1997.

Extension of public water outside of designated Urban Service Areas is also an important public water supply issue. Often, water managers are interested in extending service boundaries to increase the size of the ratepayer base in order to fund improvements. However, such extensions can lead to inappropriate sprawl and increase development pressure in rural areas.

On the other hand, these extensions can provide needed supplies to existing development on nearby properties that may be experiencing problems with private wells that are either running dry or becoming contaminated. In many such cases, drilling a new well does not resolve the problem. As a result, policy is needed that balances the needs of existing residents and the public interest in avoiding sprawl.

3.2 Wastewater Treatment and Disposal Services

Untreated or improperly treated wastewater contains bacteria, viruses, chemicals, and nutrients that can cause human diseases; kill or injure plants and animals; and produce surface waters that are contaminated, discolored, or odorous. Since all wastewater is eventually returned to the environment, the public has a vital interest in assuring proper wastewater management. The Water Resources Element establishes goals, objectives, and policies pertaining to water quality and wastewater management. This section of the Public Facilities and Services Element addresses issues regarding improving existing wastewater treatment systems, developing new wastewater treatment systems, and extending wastewater treatment services to new areas not currently served.

3.2.1 On Site Wastewater Treatment Systems

An on-site wastewater treatment system (OWTS) is an individual wastewater treatment and dispersal system, small community collection, treatment and dispersal systems, or alternative collection and dispersal systems that use subsurface dispersal. These systems are commonly referred to as "septic systems". OWTSs do not include graywater systems pursuant to the Health and Safety Code Section 17922.12.

A standard OWTS consists of a tank and leachfield (subsurface treatment and disposal of wastewater) and may include a diversion valve and/or pump. Wastewater enters the tank and is retained long enough so that large solid particles and very small solid particles joined together settle to the bottom. Bacteria digest the solids that accumulate in the tank at the bottom (sludge); and the fats, oils, grease, and other materials that float to the surface (scum); the resulting solids must be pumped out periodically. The partially treated wastewater (effluent) leaves the tank in pipes and is discharged below the ground surface into the leachfield, which consists of perforated pipes laid over gravel in trenches (leachlines). The effluent flows along the length of the pipes where it gradually percolates into the soil. The effluent receives secondary treatment through natural physical and microbiological processes in the soil.

A standard OWTS distributes effluent through a series of leachlines, which are sections of perforated pipe located in trenches which are backfilled with gravel. Effluent flows through one leachline at a time. As one leachline clogs, the effluent flows via a distribution box to the next leachline; when the last leachline clogs, individual leachlines or the entire leachfield must be replaced.

Deep and biologically active soils with relatively long retention times before effluent contacts groundwater are ideal conditions for the siting of OWTSs. Unfortunately, most of the Sonoma County coast consists of relatively sandy soils, poorly drained clay, highly weathered and fractured bedrock, or high groundwater. Without sufficient retention time for secondary filtration and treatment as effluent percolates through the soil these conditions allow effluent to move rapidly into local groundwater and or discharge to the ocean. In areas with poorly draining clay soils, effluent can pool at the surface, creating potential public health problems through human contact and impacts to coastal resources through discharges to surface waters or Environmentally Sensitive Habitat Areas.

New and replacement OWTSs shall be located, designed, constructed, and operated in a manner to ensure that sewage effluent does not surface at any time, that is protective of public health, safety and the environment and that percolation of effluent into the soil will not adversely affect beneficial uses of the waters of the State of California. (OWTS Manual)

The OWTS Manual establishes standards for all on-site wastewater systems in Sonoma County. These standards implement provisions of the Porter Cologne Water Quality Control Act, the State Water Resources Control Board OWTS Policy, and applicable sections of Sonoma County Code Chapters 7 and 24. California Water Code 13282 authorizes counties to adopt and enforce regulations, conditions, restrictions, and limitations regarding the dispersal of waste. The Sonoma County OWTS Manual is the local implementation of this authority.

In the coast, most soils are not well suited for installation of an OWTS will require installation of a non-standard experimental or alternative system. Non-standard OWTSs are used to overcome one or more adverse site or soil condition such as high groundwater, slowly permeable soils, or other limiting condition or where increased wastewater treatment is needed. Unlike conventional OWTSs, non-standard OWTSs vary in design and concept depending on the site and soil conditions. (OWTS Manual)

On coastal parcels, meeting OWTS standards is often the limiting factor for development. On many lots it is difficult to meet the setbacks to property lines, road cuts, streams, drainage courses, cliffs, and the 10-year floodplain due to the small size of the lots, which in many cases were created prior to current OWTS regulations. For example, on small lots in Carmet, Jenner, Sereno del Mar and Salmon Creek, even if the soil has an adequate percolation rate, there is not enough room for even a one-bedroom OWTS. A lot fronting Salmon Creek that is 40 feet long will not meet the required 100-foot setback from the 10-year floodplain. Steep slopes and shallow fractured bedrock also contribute to inadequate conditions for OWTS, as the effluent can move laterally and break out to the surface along the slope.

On Site Wastewater Treatment Systems Regulations

The State Regional Water Quality Control Boards (Regional Board) is responsible for establishing standards for OWTSs to protect water resources and public health. Permit Sonoma is the delegated authority for implementation and enforcement of State and County specific OWTS regulations. New OWTSs must meet standards for slope, soil depth, depth to groundwater, percolation rate, and system setback distance.

In areas where failure of OWTSs are likely to cause health hazards or impair water quality, Permit Sonoma or the pertinent Region Board (North Coast or San Francisco Bay) may issue an Order to prohibit any waiver of existing OWTS installation regulations in a specific area. This Order referred to as a "Waiver Prohibition Area," is intended to decrease the likelihood of failure of new OWTSs. Jenner, Rancho del Paradiso, Sereno del Mar, Carmet, and Salmon Creek are in Waiver Prohibition areas.

On May 13, 2013, the North Coast Regional Board amended their Basin Plan to adopt the Septic System Policy. The Septic System Policy sets minimum standards for OWTSs that are constructed or replaced or are subject to a major repair. The Septic System Policy also includes minimum operating requirements for OWTSs that include requirements for siting, construction, and performance; OWTSs near certain waters listed as impaired under Section 303(d) of the Clean Water Act; corrective action; monitoring; exemption criteria; determining when an existing OWTS is subject to major repair; a conditional waiver of waste discharge; and authorizing local agency implementation of the Septic System Policy.

Alternatives to Standard OWTS

A Non-Standard system is a type of OWTS that utilizes a method of wastewater treatment that may or may not include a conventional OWTS tank and/or method of wastewater dispersal other than a conventional drain field for the purpose of producing an equal to or greater quality wastewater effluent and improved performance of and siting for effluent dispersal than a standard OWTS. There are two types of non-standard systems: Experimental and Alternative.

An Experimental OWTS is a non-standard OWTS deemed conditionally acceptable by the Regional Water Quality Control Board, subject to increased performance monitoring and evaluation, prior to acceptance as an approved non-standard Alternative OWTS.

An Alternative OWTS is an approved non-standard OWTS that has demonstrated in the non- standard Experimental phase to function in such a manner as to protect water quality and preclude health hazards and nuisance conditions, and is capable of producing an equal to or greater quality wastewater effluent and improved performance of and siting for effluent dispersal than a standard OWTS. (OWTS Manual)

Alternative OWTSs disperse the effluent under pressure to the disposal field, allowing the effluent to percolate throughout the entire soil area designed to treat the effluent. Greater treatment of effluent occurs when it passes through a larger soil mantle or area of soil. In contrast, a standard OWTS uses a small portion of the designed soil treatment area, as effluent flows by gravity to the beginning of a leach line where it disperses. This process continues until an entire leachline is filled up and then the effluent overflows by gravity to the next leachline.

Alternative OWTSs consist of in ground systems and above ground systems. In ground systems include shallow trench pressure distribution systems, shallow in-grade systems, and subsurface drip dispersal systems. Above ground systems include mound systems, at-grade systems, and bottomless sand filters. Pretreatment units are County approved

advanced treatment units that provide pretreatment of wastewater and improve the wastewater quality prior to dispersal into the soil. These systems can be used with either standard or alternative OWTSs and are included in our Alternative Non-Standard System program.

Alternative OWTSs that may be feasible for individual sites on the Sonoma County are the mound, shallow trench pressure distribution, at-grade, drip dispersal, alternative and/or standard systems with pretreatment, common leachfield, and on-site wastewater system monitoring and maintenance program (on-site wastewater disposal zone).

Above Ground Alternative OWTS. The Mound, At-Grade and Bottomless Sand Filter systems, with or without pretreatment, are used in areas where a high water table, poor soil, or shallow bedrock prohibit the use of trenches in the standard system. The pressurized leachlines are installed above the existing grade to assure the effluent is properly treated – sand (mound) or gravel (At-grade) is placed on top of the existing soil, and a pipe distribution system is laid down. The above ground system assures adequate filtration of the effluent before it reaches the groundwater or impervious soil lens. Bottomless sand filters are not approved for undeveloped parcels. The mound system is the most promising OWTS for dealing with the common coastal problems of clay soils and seasonally high groundwater levels. However, the mound system requires a lot size of about two acres and slopes of less than 20 percent, and more homeowner maintenance compared to a standard OWTS. Therefore, the applicability of the mound system on the Sonoma County coast is limited.

In Ground Alternative OWTS. The Shallow Trench Pressure Distribution, Shallow In-Ground and Subsurface Drip Dispersal systems, with or without pretreatment, may be used when there is an increased depth of soil and/or groundwater than that which would require an Above Ground OWTS installation, but less than the requirements for a standard OWTS. Due to the decreased leachfield size requirements, the subsurface drip dispersal is the most promising OWTS that may be applicable for certain coastal parcels. However, due to site constraints as mentioned above (poor soils, depth to groundwater, parcel size), the applicability of the subsurface drip dispersal system on the Sonoma County coast is limited as well.

Common Leachfield. A common leachfield is a leachfield shared by several properties, located on a separate property of adequate size with proper site conditions. Each property has an OWTS tank and piping leading to the common leachfield. The common leachfield is usually larger than the leachfield for an OWTS. Systems shared in common with other property owners are prohibited except with County Board of Supervisors and RWQCB authorization.

OWTS Monitoring and Maintenance Program (On-Site Wastewater Disposal Zone). An OWTS monitoring and maintenance program, also referred to as an on-site wastewater disposal zone, is another alternative to individual OWTSs. Such a program does not make more lots buildable, rather has the potential for extending the useful life of OWTS and promptly correcting operational problems. A public agency which is authorized to acquire, construct, maintain, or operate sewage treatment systems may run such a program. Once an on-site wastewater disposal zone is established, the agency has the power within that zone to acquire, design, own, construct, install, operate, monitor, inspect, and maintain individual OWTSs. The potential for this type of program is widespread on the Sonoma Coast.

A wastewater system monitoring and maintenance program is required for The Sea Ranch. In the late 1980s The Sea Ranch Association and the County of Sonoma created an On-Site Wastewater Disposal Zone (Zone) to address problems with about 1,570 on-site individual OWTSs at The Sea Ranch. In July 1989 the Zone was created under the agreement that the Board of Supervisors would contract with The Sea Ranch Association to operate, monitor, inspect, and maintain the OWTSs. In July 1995 the Zone was designated as CSA 41 and came under the direction of Permit Sonoma.

Areas with Severe Limitations for OWTSs

Nearly all developed or vacant parcels in the Sonoma County coast have severe limitations for installation and continued operation of individual OWTSs. Existing developed areas in Windemere Point North of Fort Ross, Duncans Mills, Bridgehaven, Goat Rock Headlands, Valley Ford, Jenner, Rancho del Paradiso, Sereno del Mar, Salmon Creek, Wrights Beach, Gleason Beach, and Carmet benefit from the addition of disinfection and pretreatment to existing systems or construction of community leachfields or clustered systems.

Windemere Point North of Fort Ross. Limitations for OWTSs in this area include shallow soils, impermeable soils, and elevated groundwater. About ten percent of the parcels in this area can accommodate an OWTS.

Duncans Mills. Limitations for OWTSs in this area include sandy soils that drain too fast, high groundwater, proximity of the water system, required setback from the floodplain, and required setback from the Russian River.

Bridgehaven. This area adjacent to the Russian River has cesspools and seepage pits. Limitations for OWTSs include very small lots, slowly draining soils, high groundwater, and required setback from the Russian River. The area cannot accommodate any new individual OWTSs.

Goat Rock Headlands. This area of low residential density has antiquated OWTSs, slowly draining soils, and high groundwater.

Valley Ford. Valley Ford has very shallow soils, high groundwater, and low availability of water.

Jenner. Jenner has the highest density and the most severe OWTS problems than any other residential area on the Sonoma County coast. Limitations for OWTSs in Jenner include very small lots, steep slopes, impermeable soils, and high groundwater. As in Salmon Creek and Carmet, even if the soil on a lot has an adequate percolation rate, there is not enough room for even a one-bedroom OWTS. The area cannot accommodate any new OWTSs.

Rancho del Paradiso. Limitations for OWTSs at Rancho del Paradiso include very steep slopes; very small lots; shallow impermeable soils; high groundwater; seasonal flooding; and a water system with water quality problems.

Salmon Creek. Salmon Creek has cesspools and seepage pits. Effluent from these systems drains to the water system. Limitations for OWTSs at Salmon Creek include very small lots, fast draining soils, high groundwater, and required setback from Salmon Creek (some systems are in the creek). There is a limited water supply and problems with water quality. As in Jenner and Carmet, even if the soil on a lot has an adequate percolation rate, there is not enough room for even a one-bedroom OWTS.

Wrights Beach. Limitations for OWTSs at Wrights Beach include small lots, shallow soils, high groundwater, and potential for breakout of effluent on the bluffs. There is a limited water supply and problems with water quality.

Gleasons Beach. Most, but not all individual systems have been abandoned as coastal erosion has reduced lot size and destroyed all but 8 of the original 21 homes. A community leachfield was constructed in 2000 to serve all homes in this area, but only half of the remaining 8 homes are connected to the system. Realignment of Highway 1, sea level rise, and a bluff retreat rate of more than one foot per year will likely begin to destroy the leachfield within the next 15 years. The realignment of Highway 1 reduces opportunities for relocating the community leachfield and none of the homes have potential for on-site disposal fields. **(New)**

Carmet. Limitations for OWTSs in Carmet include small lots, shallow soils, and high groundwater that is almost at the ground surface. As in Jenner and Salmon Creek, even if the soil on a lot has an adequate percolation rate, there is not enough room for even a one-bedroom OWTS. Vacant lots do not meet the criteria for an alternative system.

Sereno del Mar. Sereno del Mar is a subdivision of relatively new homes - construction started in the late 1970s. Limitations for OWTSs in this area include steep slopes, slowly draining soils, and seasonally high groundwater. Lot size tends to be less than one acre, but not so small as to exclude even a one-bedroom house. Over the last 25 years, mainly non-standard mound OWTSs have been permitted in Sereno del Mar due to the high groundwater. The area is traversed by a fault line, which may contribute to the high groundwater. Soil in the area is predominately a shallow loam to sandy loam over clay. However, near State Highway 1 there is well-drained sandy loam to about 8 feet, where standard OWTSs would meet all requirements. Where groundwater is high, some property owners have obtained an easement onto the ranch behind and adjacent to Sereno del Mar in order to have more land to meet OWTS requirements. The community has a public water system.

The Coastal Subdivisions of Carmet, Rancho del Paradiso, Salmon Creek, Sereno del Mar, and the Community of Jenner are County Waiver Prohibition areas. This means that waiver requests for new construction of structures on vacant lots and construction on existing structures that would result in an increase in flow are prohibited.

Areas without Severe Limitations for OWTSs

There are areas along the Sonoma Coast where the limitations for individual OWTSs are not so severe. There are only four subdivisions where new OWTSs can be installed on most vacant lots: Fort Ross Highlands, The Sea Ranch, and Timber Cove. Even at The Sea Ranch and Timber Cove, there is concern about the cumulative impacts of OWTS discharges as the areas become more developed.

Fort Ross Highlands. Constraints to OWTSs in this area include shallow soils and high groundwater in winter.

The Sea Ranch. The Sea Ranch has complex topography and soils. Two sewage treatment plants owned by the Sonoma County Water Agency serve units at the north end and in the central area of The Sea Ranch (see "Sewer Services" below). The remainder of the community is served by individual OWTSs. An on-site wastewater management district oversees the monitoring and compliance of the OWTSs and reports to the North Coast RWQCB and Permit Sonoma annually. Over the last 10 years, the majority of OWTSs have been permitted in the commons area due to the presence of good soil (Baywood fine sandy loam) and adequate depth to groundwater. Some homes are over 1/4 mile from this disposal site in the commons area because the lot is too small or the soil is too shallow to support OWTSs. As of March 2006 the commons area still contained room for additional clustered OWTSs. Permit Sonoma anticipates construction of more drip dispersal and at-grade alternative OWTSs in the future at The

Sea Ranch, as these alternative systems take up less area than many other standard and alternative systems (see "Alternatives to Standard Individual OWTSs" below). A common disposal system should be considered to reduce the large number of individual leach lines across The Sea Ranch. Many homes could use one OWTS tank, or many OWTS tanks could combine into a transmission line that then flows to a common leachfield. The Sea Ranch Central Sanitation Zone should be expanded to include the Sea Ranch Lodge and Blackpoint Beach, the areas with the most OWTS problems and where breakout of wastewater has occurred on the bluffs.

Timber Cove. Limitations to OWTSs at Timber Cove include very small lots, steep slopes, shallow soils, and high groundwater. The water supply is limited. Most of the OWTSs at Timber Cove are non-standard alternative systems. It is not possible to build on most vacant lots.

GOAL C-PF-2: **Ensure that growth and development match existing water and wastewater treatment and disposal capacities.**

Objective C-PF-2.1: Plan for growth and development to match existing water and wastewater treatment and disposal capacities and facilities.

Objective C-PF-2.2: Operate County water and wastewater treatment and disposal facilities in compliance with applicable State and Federal standards.

Objective C-PF-2.3: Help resolve water problems resulting from proliferation of small water systems.

Objective C-PF-2.4: Limit extension of public water and sewer services into rural areas.

The following policies, in addition to those in the Water Resources and Open Space and Resource Conservation Elements, shall be used to achieve these objectives:

Policy C-PF-2a: Growth and development shall be planned in accordance with existing water and wastewater treatment and disposal capacities and facilities in accordance with California Coastal Act. Development, including land divisions, shall be prohibited unless adequate water and wastewater treatment and disposal capacities and facilities exist to accommodate such development. In acting on any Coastal Development Permit, determine that adequate capacity is available and reserved in the system to serve Coastal Act priority land uses (i.e., coastal-dependent uses, agriculture, essential public services, and public recreation; see Land Use Element, Table C-LU-2). In areas with limited service capacity, new development for a non-priority use, including land

divisions, not specified above shall only be allowed if adequate capacity remains for Coastal Act priority land uses**. (New)**

Policy C-PF-2b: A public water or wastewater district shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with the Local Coastal Plan in accordance with California Coastal Act Section 30254. New development within the service boundary of a public water or wastewater district shall be required to connect to the district for water or wastewater service. **(New)**

Policy C-PF-2c: A Coastal Permit shall be required for water or wastewater management facility expansion or improvement projects unless otherwise exempt by the Local Coastal Program. Development of new or expansion of existing water or wastewater management facilities shall be in phase with the availability of other public works infrastructure. **(New)**

Policy C-PF-2d: Master plans or equivalent documentation shall be prepared for all water and wastewater management systems prior to approval of facility expansion or improvement projects. All facilities shall be designed and constructed in accordance with the existing and planned development in the applicable jurisdictions. In the event that a master plan or monitoring fails to show adequate facilities or supplies for existing development, zoning changes, building permits, or other entitlements in order to protect services to existing residents.

The minimum contents necessary for an adequate master plan or equivalent documentation are:

(1) Maps showing potential future service area boundaries in accordance with California Coastal Act Section 30254.

(2) Existing development within the existing and potential future service area boundaries.

(3) Projected growth and the related service and facility needs;

(4) Estimated costs and revenues for needed improvements;

(5) System design parameters and assumptions;

(6) A program for water use reduction; and

(7) A program to reduce stormwater infiltration. **(GP2020)**

Policy C-PF-2e: Extension of public sewer services outside of the boundary of The Sea Ranch and Bodega Bay Urban Service Areas shall be avoided. Exceptions to this policy shall be considered, to the extent allowed by law, only:

(1) Where necessary to resolve a public health hazard resulting from existing development (i.e., contamination of land, surface water, or groundwater resulting from failure of an existing OWTS or other wastewater management system); or

(2) Where appropriate to allow for development of public park or recreation facilities.

A Coastal Permit shall be required for extension of public sewer services outside of an Urban Service Area.

Where several failing OWTSs or other health and safety problems which pose a significant hazard to human health and safety exist outside an Urban Service Area that could be addressed by extension of public sewer service, use Outside Service Area Agreements which limit the use of existing development. The evaluation should assure sufficient capacity to serve existing connections and potential buildout in the existing Urban Service Area.

A Coastal Development Permit shall be required for extension of public sewer services outside of an Urban Service Area. **(GP2020 Revised)**

Policy C-PF-2f: The following guidelines shall be used for any exception allowed by **Policy C-PF-2e**:

(1) The property must adjoin the Urban Service Area Boundary, or the proposed connection to a public sewer system must be no more than 200 feet from the Urban Service Area Boundary;

(2) Size sewage facilities to serve development consistent with the Local Coastal Plan;

(3) Require written certification that adequate service capacity is available for the use to be connected to the system; and

(4) Use agreements, covenants, and zoning to limit the growth inducement potential of extension of public sewer services. **(GP2020 Revised)**

Policy C-PF-2g: Extension of public water service to a property that is outside the boundary of an Urban Service Area or Rural Community (i.e., Duncans Mills, Jenner, Sereno del Mar, Carmet, Salmon Creek, Timber Cove, and Valley Ford) shall be avoided. Exceptions to this policy shall be considered, to the extent allowed by law, only:

(1) Where necessary to resolve a public health hazard resulting from existing development (i.e., failure of water wells or contamination of land, surface water, or groundwater resulting from failure of an existing OWTS or other wastewater management system); or

(2) Where appropriate to allow for development of public park and recreational facilities.

A Coastal Permit shall be required for extension of public water service. **(GP2020)**

Policy C-PF-2h: The following guidelines shall be used for any exception allowed by **Policy C-PF-2g**:

(1) Size facilities to serve development consistent with the Local Coastal Plan;

(2) Require written certification that adequate service capacity is available for the use to be connected to the system or planned to be connected in the future; and

(3) Use out-of-service area agreements that limit the use to existing development rather than annexations. **(GP2020)**

Policy C-PF-2i: Applications for subdivision of land or new development or uses within a water or wastewater service area shall be required to include written certification from the service provider that existing water and wastewater services are available to serve the new parcels, development, and uses; or that the service provider will make improvements to the water or wastewater systems necessary to accommodate the new development and uses prior to final project approval. The proposed project shall not be considered for approval if this written certification is not provided. **(Existing LCP Revised)**

Policy C-PF-2j: When considering formation of new water service agencies, systems owned and operated by a governmental entity shall be favored over privately or mutually owned systems. New privately or mutually owned systems shall be authorized only if system revenues and water supplies are adequate to serve existing and projected growth for the life of the system, which shall be ensured through agreements or other mechanisms that set aside funds for long-term capital improvements and operation and maintenance costs. **(GP2020)**

Policy C-PF-2k: Approval of new wastewater treatment and disposal systems owned and operated by a governmental entity shall be considered only when necessary to resolve an existing public health hazard. **(GP2020)**

Policy C-PF-2l: New privately owned package treatment plants which serve multiple uses or serve separate parcels shall be avoided. Use of package treatment plants to serve affordable housing or other projects on a single parcel under one ownership shall be allowed provided that they comply with the following criteria:

(1) The package treatment plant must comply with water quality and health standards and protect water resources;

(2) The design and appearance of package treatment plants located in agricultural and other rural areas must be compatible with the rural area's character;

(3) The project must include provisions for the long-term operation, maintenance, and eventual replacement and/or removal of the package treatment plant; and include adequate financing for these provisions through bonds, sinking funds, or other mechanisms; and

(4) The package treatment plant is not to be used as a basis for approving a new affordable housing development in Rural Communities or on other rural land, or amending the Local Coastal Plan to allow for more intensive development. **(GP2020)**

Policy C-PF-2m: Consider use of alternative (non-standard) sewage disposal systems only to serve a single land use on a single parcel, and only if the availability of the system does not result in new development, except as allowed by the Local Coastal Plan. **(GP2020)**

Policy C-PF-2n: Any waiver of Regional Board standards for on-site wastewater disposal in Jenner, Carmet, Rancho del Paradiso, Sereno del Mar, and Salmon Creek shall be prohibited. **(Existing LCP Revised)**

Policy C-PF-2o: Consider development or expansion of a community wastewater treatment system in areas with widespread OWTS problems that are a health concern and cannot be addressed by an on-site wastewater maintenance and management program, in compliance with the policies of this Local Coastal Plan. **(GP2020)**

Policy C-PF-2p: Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development in accordance with California Coastal Act Sections 30222 and 30254. The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority consistent with coastal priority land uses of the Coastal Act. **(New)**

4. PARKS AND RECREATION SERVICES POLICY

Outdoor recreation contributes to the tourism economy, enhances the quality of life for County residents and visitors, and conserves unique natural and cultural resources. The Public Facilities and Services Element describes the current status of public recreation in general terms of service capacity and demand in relation to projected growth. The needed park and recreation facilities are identified and addressed in the Public Access Element.

The various types of parkland found in Sonoma County are based on the Board of Supervisors approved parkland classification system. County planning staff considers a variety of factors in determining the need for local parks (e.g., Neighborhood and Community Parks) and the more intensively developed park and recreation facilities (e.g., Regional Recreation Areas). These factors include, but are not limited to, community preference, nearby population densities, proximity to other recreational areas and facilities, local and regional tourism, and accessibility, among others. Parkland needs for the resource-based park and recreation facilities (e.g., Regional Open Space Parks, Preserves, and Trails) are determined by these and other criteria, and are described in the Public Access Element.

Goal C-PF-3: **Provide adequate park and recreation services on the Sonoma County coast.**

Objective C-PF-3.1: Provide an adequate supply and equitable geographic distribution of regional and local park and recreation services based on population projections, estimated user demand, and Local Coastal Plan resource objectives.

Objective C-PF-3.2: Use guidelines established by the Board of Supervisors as the minimum standards for determining park needs.

The following policies, in addition to those in the Open Space and Resource Conservation and Public Access Elements, shall be used to achieve these objectives.

Policy C-PF-3a: The Public Access Element and Plan shall be used to determine regional park needs, including County regional open space parks, County trails, and State parks in order to support recreation in the Coastal Zone. **(New)**

Policy C-PF-3b: The proposed accessway, park, and trail descriptions in the Public Access Plan shall be used to determine Local Coastal Plan consistency of proposed accessways, parks, and trails as consistent with the Public Access Element. **(GP2020)**

Policy C-PF-3c: Continue to implement park impact mitigation that allows for the dedication of land, the payment of fees, or both as a condition of approval for development projects. **(GP2020)**

5. PUBLIC EDUCATION SERVICES POLICY

5.1 Schools

As the Sonoma County coast has relatively low population densities, schools are widely spaced in five Elementary School Districts and three High School Districts, and tend to

be small with combined classes. Specialized education facilities are minimal. Each school district has its own revenue base, elected board, and administration. The Sonoma County Office of Education provides some administrative and business services to all districts. **Figures C-PF-1a** to **C-PF-1c** show the Public School Districts on the coast.

A major issue in planning for new facilities is the need for increased coordination between land use and facilities planning. Districts must be aware of the projected residential growth in their service area so that new school needs can be accurately forecast. An important source of financing for new school facilities is the "school impact" fee on new residential construction. State law now authorizes local school districts to charge development fees for permanent facilities. However, funding will likely continue to depend on State sources. California law also enables a County to acquire new school sites by dedication as a condition of subdivision approval.

5.1.1 Elementary Schools

All elementary school districts must meet minimum state requirements regarding class sizes. Maximum class sizes for grades K-8 vary per California Education Code sections 41376 and 41378, which prescribe the maximum class sizes and penalties for districts across California. For Kindergarten, the average class size must not exceed 31 students, with no class larger than 33 students; for grades 1-3, the average class size must not exceed 30 students, with no class larger than 32 students; for grades 4-8, the average class size must not exceed either 29.9 students or the average of the district in 1964, whichever is smaller. Additional classrooms are usually constructed only when these limits are reached.

Horicon Elementary School District. Horicon Elementary School District consists of one school, Horicon Elementary School, which is located in the community of Annapolis. Enrollment at Horicon Elementary School decreased from 80 students in four classrooms in 1979 to 47 students in four combined classrooms at the start of the 2015-2016 school year. According to the District, the number of students has been declining, as is common with general school enrollment trends statewide. Over the last eight school years, the student population has fluctuated between 70 students in 2011, 57 students in 2012, 60 students in 2013, 66 students 2014, 61 students in 2015, 47 students in 2015-2016 school year, 59 students in the 2016-2017 school year, 62 students in the 2017-2018 school year before reaching a total of 69 students in the current 2018-2010 school year. The school serves students from the communities of The Sea Ranch and Annapolis. According to the District, there is no anticipated growth or need for additional facilities.

Fort Ross School District. The Timber Cove Subdivision is the largest planned residential development in, and the main growth area for, the Fort Ross School District. Enrollment at the Fort Ross Elementary School decreased from 53 students in two classrooms in 1979 to 32 students in two classrooms during the 2014-2015 school year, to 28 students in two classrooms during the 2015-2016 school year. Since then the student population continues on the downward trend having 24 students in the 2016-2017 school year, 19 students in the 2017-2018 school year, and finally 21 students for the current school year. The District has seen a fluctuation within the last few years between 27 and 32 students, but generally the District enrollment has been steadily declining over the last 20 years. The District has a preschool site within a classroom at the Fort Ross Elementary School which is run by River to Coast Children's Services based in Guerneville. However, there is no current enrollment at the preschool. When enrollment resumes, the River to Coast Children's Services would remain responsible for running the preschool program at the school.

Monte Rio School District (outside Coastal Zone). Coastal areas are not expected to contribute significant numbers of new students to the Monte Rio School District. Enrollment at Monte Rio Elementary School decreased from 219 students in eight classrooms in 1979 to 112 students in six classrooms in 2005. There has been an additional decrease in student population figures, with 84 students using nine classrooms in 2015. The District believes that the decline in enrollment is due to the decrease in families moving to the area. The 2015-2016 school year brought one additional student to make 85 students for the school year, 90 students in 2016-2017, the 2017 to 2018 school year had 89 students, and 84 students in the current school year of 2018-2019. The District projects a decrease in enrollment in the future for the same reason.

Harmony Union School District. Harmony Union School District contains two schools at the same site to the south of Occidental: Harmony Elementary School (preschool, Kindergarten, and grade 1) and Salmon Creek School – A Charter School (grades 2-8). The District receives some students from Occidental, Freestone, and portions of Bodega, and Monte Rio. Enrollment in the District increased from 419 students in 1979 to almost 700 students in the late 1980s. Within the last ten years, however, a substantial decrease in enrollment has occurred, with 292 students in 15 classrooms in 2005 and only 235 total students in twelve classrooms in 2015. The 2016-2017 school year had 245 students, 2017-2018 had 256 students, and the current 2018-2019 student population of 249. The District believes that the decline in enrollment is due to aging population trends and the significant increase in housing costs.

Shoreline School District. South Coast students attend Bodega Bay Elementary School for grades K-5, and are bused to Tomales Elementary School (outside of Sonoma County Coastal Zone) for grades 6-8. As most students attending Bodega Bay Elementary School are from the immediate area, construction of additional classrooms would be needed to accommodate additional Bodega Bay area growth. Enrollment at the Bodega Bay Elementary School decreased from 70 students in three classrooms in 1979 to 40 students in three classrooms in a new school in 2005, to 19 students using two classrooms in 2015-2016 school year. Since then there was a slight increase to 25 students for the 2016-2017 school year, 26 students in 2017-2018, and 23 students in the current school year 2018-2019. The District believes that enrollment numbers could fluctuate because of interdistrict transfers largely from Coast Guard families.

5.1.2 High Schools

The Sonoma County coast is served by three high schools in three school districts, none of which are on the coast. Students from Annapolis, The Sea Ranch, and Stewarts Point attend Point Arena High School in Mendocino County; students from Fort Ross through Bodega Bay attend El Molino High School in Forestville, and South Coast students attend Tomales High School in Marin County.

Impacts of growth on high schools are not as severe as for elementary schools and are harder to estimate. Class sizes, schools, and district areas are larger. High schools have more flexibility in handling increments of students from specific development areas without adding classrooms or teachers.

Goal C-PF-4: **Provide school facilities adequate to meet the future needs of Sonoma County coast residents.**

Objective C-PF-4.1: Accommodate new school sites as needed.

The following policies shall be used to achieve these objectives:

Policy C-PF-4a: Continue to implement school impact mitigation that allows for the dedication of land, the payment of fees, or both as a condition of approval for development projects. **(GP2020)**

6. FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES POLICY

6.1 Fire Protection Services

Fire protection and emergency medical and rescue services are essential to the protection of life and property in the unincorporated areas of Sonoma County. They are provided by four types of agencies. The California Department of Forestry and Fire Protection (CalFire) provides services to State Responsibility Areas. Fire Protection Districts provide services with revenues from property taxes, and are usually created to provide a reliable funding source to sustain a stable and/or increased level of fire protection services to certain areas of the County. Volunteer fire companies provide local services in rural communities. CSAs and Community Service Districts (CSDs) are areas of the County which bear a special tax assessment for particular types of extended services, such as structural fire protection; they rely primarily on volunteer staff.

CSA 40 is a County entity that provides a moderate amount of funding and relies primarily on volunteer staff in various CSAs. CSA 40 also provides management oversight for, directs, and coordinates the various volunteer fire companies; and supplies training, safety equipment, and insurance coverage for voluntary staff.

The County has established the Department of Fire and Emergency Services (DES) to coordinate the fire protection service agencies in the County. DES contracts with various Fire Protection Districts and municipal fire agencies to provide support services including code enforcement, construction plan checking, and fire safe planning.

Fire protection services are highly dependent on paid on-call, paid part-time, and volunteer personnel. Although this dependency remains, the number of volunteer firefighters has fallen off in recent years. While the County generally has been receiving acceptable levels of fire protection services, problems have resulted from the condition of existing equipment and matching the type of equipment and staff training to the type of fire. The Bodega Bay Fire Protection District; and The Sea Ranch, staffed by CalFire personnel funded through CSA 40, provide the only fire protection services by full time staff on the Sonoma County coast.

In addition, various levels of certification and safety standards are now required for many activities performed by volunteer staff. It is becoming increasingly difficult to maintain sophisticated emergency medical training and first responder training for hazardous materials, terrorism, and natural disasters. The need to comply with Federal and State mandated standards for personal safety equipment and training is also straining the system. These additional requirements further increase the amount of time

volunteer staff must spend in training and the necessary level of their commitment. Volunteers, usually younger workers, often have difficulty finding affordable housing and may have to travel out of the immediate area for employment. These factors contribute to the difficulty volunteer fire companies have in recruiting and retaining volunteers.

Demand for increased fire suppression and emergency medical services will not be generated by housing, population, or job growth alone. Increases in tourism, increases in level of service expectations, and changes in the population mix will also affect demand.

The Department of Fire and Emergency Services projects that the most pressing and costly needs involve staffing levels. It anticipates a shift from volunteer supported services to an even greater reliance on paid personnel. This shift will be accompanied by a trend from volunteer companies to formation of special districts.

The primary tasks with regard to fire services planning are to ensure that needed organizational changes occur in a timely and cost effective manner, and to secure adequate revenue sources. Emergency medical services should also be evaluated, since the growth in medical calls over the first half of the decade has consistently outpaced fire emergency calls.

On the Sonoma County coast all communities are served by volunteer fire departments with the exception of Duncans Mills and Jenner, served by the Monte Rio Fire Protection District; Bodega Bay, served by the Bodega Bay Fire Protection District; and The Sea Ranch and Annapolis, served by the North Coast Fire Protection District (established in April 2016) The Fort Ross and Bodega Volunteer Fire Departments are funded by CSA 40. Timber Cove is a special tax district, not part of CSA 40. **Figures C-PF-2a** to **C-PF-2c** show the Fire Protection Districts on the coast.

Structural fire protection on the coast has general inadequacies common to many rural areas. The Sea Ranch, Timber Cove, and Bodega Bay are the only areas with adequate water supply and water pressure for firefighting. Most departments lack paid staff and up-to-date firefighting equipment. The average age of fire apparatus is 26 years. Most of the fire stations are in need of maintenance and repair, and some need to be replaced. Fire protection response areas tend to be large, with limited road access. These factors combined with volunteer fire departments make for relatively long response times.

Increases in coastal development are not likely to bring about substantial changes in the organization of coastal fire departments because the costs for fire protection are too

high. Only The Sea Ranch and Bodega Bay are expected to reach levels of development where minimal paid staffing levels would be possible. However, increased development and public access to the Sonoma Coast will increase fire risk and demand for emergency medical services. The aging demographics of coastal communities will make the recruitment of young volunteers problematic. Increasingly limited funds at Federal, State, and local levels make acquisition of fire equipment difficult, especially for departments that have relatively low call volume.

6.2 Emergency Medical Services

The Sonoma County coast has limited medical services. It is difficult to attract and keep physicians since rural area physicians face longer hours and lower pay than their urban counterparts. Emergency medical and other support facilities are also lacking.

The Coast First Responders Group has been established to serve the majority of the Sonoma Coast. Participation spans from fire agencies in Bodega Bay to The Sea Ranch, and includes State and county parks departments, Sonoma County Sheriff, California Highway Patrol, Redwood Empire Dispatch Communications Authority (REDCOM), CalFire, and the U.S. Coast Guard. This group regularly meets to discuss interoperability, review current multi-agency events, and plan multi-agency training. This group has also written a Coastal Incident Response Plan.

Redwood Coast Medical Services (RCMS) provides primary and preventative medical services and urgent care (available at all times) to the northern California Coast from Timber Cove north to Irish Beach in Mendocino County. Specialty medical services provided by RCMS include cardiology, ophthalmology, orthopedics, podiatry, and acupuncture, complete dental services, hospice/respite services, and counseling. Facilities consist of a main medical clinic in Gualala, dental and selected medical clinic in Point Arena, and counseling and outreach services at another clinic in Gualala. RCMS used to operate the only clinic on the Sonoma County coast until it moved from Stewarts Point to Gualala.

The Coast Life Support District (CLSD) is a special tax district charged with providing basic and advanced life support ambulance services over 270 square miles (about 47,000 acres) in Sonoma and Mendocino Counties. The CLSD service area in Sonoma County covers the coast from the north County line to an area just south of the Fort Ross Store, including Annapolis and the surrounding area; the Kashia Indian Reservation and surrounding area; and the communities of The Sea Ranch, Annapolis, Stewarts Point, Timber Cove, and Fort Ross. CLSD responds to calls other than those for medical aid, including fires, vehicle accidents, hazardous materials incidents, and

requests from law enforcement officers. Partners with RCMS (discussed above) and two medical helicopter providers (Sonoma County - REACH, Marin County - CalStar), the CLSD headquarters is located next to the RCMS main medical clinic and South Coast Fire Station in Gualala. Ambulance service from the Russian River Fire Protection District in Guerneville supplements the ambulance services provided by CLSD. Emergency patients may be transported to RCMS for treatment before subsequent transport to a Sebastopol or Santa Rosa hospital via a CLSD ambulance or a medical helicopter. In Sebastopol, Sonoma West Medical Center, formerly Palm Drive Hospital, is expected to reopen in November 2016 following a final State inspection. The County Sheriff's helicopter is also available to transport emergency patients.

The South Coast does not have any health clinics, mainly because it is less isolated from inland medical facilities compared to the North Coast. A health clinic would provide quicker and easier access to primary health care, including emergency first aid, for South Coast residents and visitors. Continued urban growth along the South Coast will only increase demand for health services. Funding is the major problem with establishing a health clinic on the South Coast.

Bodega Bay is a potential location for a South Coast health clinic. If the community of Bodega Bay cannot support a health clinic, minimal services may be provided on a part-time basis by County health outreach workers, but this arrangement would depend on future funding levels of the County Department of Health Services.

The Bodega Bay Volunteer Fire Department and Bodega Bay Area Rescue, a volunteer ambulance company, merged in 1984 to from the Bodega Bay Fire Protection District. The District provides emergency medical and advanced life support ambulance service to the South Coast, from the Russian River south to Tomales Bay and Dillon Beach in Marin County. The District's 24-hour paid staff of emergency medical technicians and paramedics is supplemented with volunteers. Ambulance service from Sonoma Life Support, based in Sebastopol, supplements the ambulance services provided by the District. A County Sheriff's Department helicopter may be dispatched for quick transport of emergency patients to a hospital in Santa Rosa.

Goal C-PF-5: **Ensure that adequate fire protection and emergency medical services are provided to meet the future needs of Coastal Zone residents and visitors.**

Objective C-PF-5.1: Improve fire protection services to the Sonoma County coast.

Objective C-PF-5.2: Promote cooperation among fire protection and emergency medical service agencies in the area of public education and

awareness, especially in those areas isolated from emergency service providers either by distance or topography.

Objective C-PF-5.3: Encourage more effective use of existing fire protection and emergency medical services by emphasizing an integrated response system on the Sonoma County coast.

Objective C-PF-5.4: Improve health, emergency medical, and other medical services to the Sonoma County coast, particularly to the South Coast.

The following policies shall be used to achieve these objectives:

Policy C-PF-5a: Emergency Services shall review and comment on any proposed changes in the boundaries of areas of State and local responsibility for wildland fire protection, and the service boundaries of local Fire Protection Districts and volunteer fire companies. **(GP2020)**

Policy C-PF-5b: Prior to project approval, require written certification from the applicable fire service agency (e.g., County DES) that the project meets or exceeds current fire regulations and that fire protection and related services customarily provided to comparable uses are adequate and available or will be available prior to occupancy for projects within the service area. **(GP2020 Revised)**

Policy C-PF-5c: Support establishment of a health clinic in Bodega Bay or another location on the southern portion of the Sonoma County coast. **(Existing LCP Revised)**

Policy C-PF-5d: Continue to coordinate fire protection services and planning with all other related agencies.

7. LAW ENFORCEMENT SERVICES POLICY

Law enforcement on the Sonoma County coast is the responsibility of the California Highway Patrol, Sonoma County Sheriff's Department, and State and County Park Rangers. The Sea Ranch maintains a private security force.

The coast is a large, sparsely populated area with limited access roads and rugged terrain. As such, provision of law enforcement services is necessarily limited. Resident Sheriff deputies are stationed at The Sea Ranch, Fort Ross, Timber Cove, and Bodega Bay. They investigate criminal complaints and respond to service calls, including search and rescue calls. Each deputy is on call five days a week and deputies alternate days off. Manpower is very limited.

The California Highway Patrol (CHP) has no regular beat along the Sonoma Coast. The traffic levels and accident rates are too low to merit one, and the region is too remote

for efficient deployment of manpower. The CHP responds to accidents or other service calls on coastal roadways, but response times vary depending on where officers are and what else is happening at the time the call comes in.

State and County Park Rangers enforce park regulations which include vehicle parking, camping, and park use restrictions. They also render assistance and respond to emergencies on State and County park property.

Park Ranger staffing at State and County Parks on the Sonoma County coast in 2015 was as follows:

(1) Bodega Bay Area Regional Parks (Doran and Westside Parks): 5 rangers

(2) North Coast Regional Parks (Stillwater Cove and Gualala Point): 2 rangers

(3) Salt Point State Park and Kruse Rhododendron Preserve, and Fort Ross State Historic Park (State): 3 rangers

(4) Sonoma Coast State Beach, Armstrong State Reserve, and Austin Creek State Recreation Area (State): 7 rangers

New development on the coast will increase pressure for additional law enforcement protection by the County Sheriff and CHP. Residents in rural subdivisions often do not realize that urban emergency response times cannot be provided at isolated locations in rural areas, and become dissatisfied with the service levels. Even existing service levels cannot be maintained with an increase in service calls unless additional manpower is available.

Parking management is another law enforcement responsibility which may increase as a result of implementation of this Local Coastal Plan. Policies call for closing small or poorly located parking turnouts, prohibiting parallel parking along parts of State Highway 1, and enforcing parking restrictions. Only park rangers presently enforce parking restrictions, and their responsibility is limited to park lands. On peak weekends when park rangers are busiest with service calls and parking problems are greatest, parking enforcement receives low priority and little attention. The Sheriff and CHP currently do not enforce parking, since there is only one restricted parking area along Highway 1.

Acquisition and development of additional park land and public accessways, mandated by the California Coastal Act, will require increases in park rangers and other staff to maintain and operate them. The expected growth in park use will also cause an increase in ranger responsibilities. Law enforcement agencies are concerned about these expected increases in responsibilities. However, they have little recourse other than to request additional staff when service levels deteriorate. One option would be to

pursue State funds for law enforcement services needed to patrol the new park land and public accessways.

Goal C-PF-6: **Ensure that law enforcement services are provided to meet the future needs of Coastal Zone residents and visitors.**

Objective C-PF-6.1: Improve law enforcement services to the Sonoma County coast, particularly patrolling State Highway 1, parks, and public accessways.

The following policies shall be used to achieve these objectives:

Policy C-PF-6a: Encourage an increase in traffic patrol of State Highway 1 through use of a CHP helicopter and any other feasible means. **(Existing LCP Revised)**

8. SOLID WASTE MANAGEMENT SERVICES POLICY

The Sonoma County Waste Management Agency (SCWMA) is the joint powers authority of the nine incorporated cities (Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor) and the County of Sonoma, and this agency manages waste diversion throughout the County per AB 939. Along with standard waste diversion, the programs that SCWMA provides include household hazardous waste removal, composting, wood waste recycling, planning, and education.

Along the Sonoma County coast north of the Russian River/Jenner, solid waste collected by a licensed hauler is delivered to the Annapolis Transfer Station, from which it is transferred to the Central Disposal Site in Petaluma. Solid waste hauled by self-haul customers could be taken to the Annapolis Transfer Station or the Guerneville Transfer Station, from which it is transferred to the Central Disposal Site. On the coast south of the Russian River, solid waste collected by a licensed hauler is delivered to the Guerneville Transfer Station or directly to the Central Disposal Site. Solid waste hauled by self-haul customers would likely be taken to the Guerneville Transfer Station and could be taken directly to the Central Disposal Site. In 2013, the County entered into a long-term (effective April 1, 2015 for a 20-year term) Master Operations Agreement with Republic Services of Sonoma County, Inc. for operations of the Central Disposal Site and the County's solid waste transfer stations (Sonoma, Healdsburg, Guerneville, and Annapolis).

State law requires cities and/or counties to prepare a Countywide Integrated Waste Management Plan (CoIWMP) to identify and reserve sites for solid waste facilities, and ensure that land uses adjacent to or near solid waste facilities are compatible with

those facilities. Sonoma County, in cooperation with the cities in the County, prepared a CoIWMP in 1994. The most recent amendment to the CoIWMP was approved by the California Department of Resources Recycling and Recovery in May 2010.

The CoIWMP is the principal planning document for solid waste management in the County. Solid waste management facilities located in unincorporated areas, including landfills and transfer stations, are designated in the Land Use Element. Issues pertaining to solid waste management addressed in the CoIWMP include:

(1) The need to temporarily close the Central Landfill and transition from a landfill based system to an outhaul based system (truck and/or rail transport) due to the expense and regulatory uncertainty associated with expanding the Central Landfill and securing flow-control agreements from the cities.

(2) The need to accommodate the sludge disposal needs of wastewater treatment facilities serving both cities and unincorporated areas; and other types of waste matter, including compostable yard waste and organic matter, recyclable inorganic products (plastic, glass, metal, etc.) and non-compostable organic matter, by treating them as a resource rather than a waste product.

(3) Reduction of the quantity of waste deposited in landfills by 50% or greater after 2000, based on waste generation rates of 1990.

The CoIWMP contains goals, policies, and short, medium, and long-range objectives, together with measures designed to guide solid waste management and disposal actions of the County and other applicable agencies. The Public Facilities and Services Element is intended to complement the adopted policies of the CoIWMP and any subsequent amendments thereto.

Goal C-PF-7: **Ensure that solid waste management facilities are sited to minimize adverse impacts on the Coastal Zone environment.**

Objective C-PF-7.1: Locate solid waste management facilities to minimize adverse effects on natural and scenic resources.

The following policies, in addition to those in the Open Space and Resource Conservation Element, shall be used to achieve this objective:

Policy C-PF-7a: The application of biosolids generated in Sonoma County to agricultural lands in the County shall be allowed if it meets all of the following criteria. In the event that one or more of the criteria are not met, a Local Coastal Plan amendment shall be required.

(1) The project's primary purpose is to enhance agricultural use. The rate of biosolid application shall be designed to enhance existing agricultural operations or designed in conjunction with a detailed management plan for proposed agricultural use.

(2) The rate of biosolid application shall not result in any future limitations on the potential agricultural use of the area of application.

(3) The project shall be subject to the approval of the applicable Regional Water Quality Control Board.

(4) A use permit and, if necessary, a solid waste facility permit, shall be obtained.

(5) A permit shall be obtained from the local solid waste enforcement agency.

(6) The biosolids to be applied to agricultural lands shall be limited to those originating from an approved Sonoma County biosolids source.

(7) The project shall include provisions for periodic review and evaluations of long-term impacts on soils, water, and agricultural production.

(8) The site for biosolids application does not contain and is at least 100 feet from wetlands and other ESHAs.

In the event that the biosolids generated in the County is inadequate to address the agricultural demand for biosolids, the County may consider site specific Local Coastal Plan text amendments for the application of biosolids generated outside of the County, provided that the above criteria 1-5 and 7-8 are met and that:

(1) The applicant can satisfy local public health officials that the method of production and content of the biosolids will not be detrimental to public health.

(2) The applicant demonstrates that traffic and other impacts of the proposed project are mitigated to the maximum extent feasible.

(3) The applicant demonstrates that there are no alternative sources of biosolids in the County. **(GP2020)**

9. PUBLIC UTILITIES POLICY

The Land Use Element designates existing public utilities as Public/Quasi-Public. Public utilities such as electricity, natural gas, broadband, and telephone services, require transmission and maintenance facilities that may affect natural and scenic resources or neighborhood character. The need for expanded and improved telecommunications services such as fiber and wireless broadband on the Sonoma County coast has been identified by residents and businesses.

In October 2006, Governor Schwarzenegger signed Executive Order S-23-06 to streamline approvals for building broadband networks; ensure all government agencies are using the best technologies to serve the people; and create a broadband task force that lets experts from government and business work together to identify and eliminate obstacles to making broadband internet access ubiquitous in the State. One of the issues raised at the Local Coastal Plan public workshops at The Sea Ranch and Jenner in May and June 2013 is the need for expansion and improvement of telecommunications services, including wireless broadband, on the Sonoma and Mendocino county coasts to provide access to emergency, medical, and educational services; improve the economy; and close the gap in the fiber-optic cable between AT&T on the North Coast and Verizon on the South Coast. In June 2015 The Sea Ranch filed an application for a Coastal Permit and Use Permit to build 59.8 miles of fiber optic telecommunications network next to roads and in trails to serve 2,280 lots in its subdivision units.

Expansion and improvement of broadband on the Sonoma County coast would close the "digital divide" by providing equality of opportunity for rural residents and businesses to have the same information and resources provided online to urban residents; boost the coast economy by allowing large, small, and home-based businesses to have a more level playing field from which to compete for a fair share of the market; increase opportunities for education, training, and employment of residents; and save lives and improve healthcare by decreasing emergency response times and increasing opportunities for telemedicine (the remote diagnosis and treatment of patients by means of telecommunications technology).

The "Economic Development Strategy and Jobs Plan - November 2011" developed by the Sonoma County Economic Development Board includes "Strategic Objective 6 – Facilitate Broadband Development in Rural Parts of the County". The project and associated action steps are described in the "Economic Development Strategy and Jobs Plan" as follows:

> *Access to broadband is becoming increasingly important to rural areas of the county, particularly for businesses such as hospitality, wine, agriculture, food processing and professional services. State funding has become available for consortia to participate in consortiums to develop three year plans for broadband deployment (training, promotion, and adoption) and there soon may be funds available for "middle mile" and "last mile" deployment. The County has joined with the North Bay North Coast Broadband Consortium (NBNCBC) in their planning efforts, and should position itself to seek funds for middle and last mile broadband deployment locally, as well as be prepared for funds that may arise for further service. Extending broadband services into unserved and underserved areas would greatly benefit the current population of tourist destination wineries, creative*

professionals, and others, and provide opportunities as infrastructure needed for economic development is made available.

a. Support efforts of the Economic Development Board through its Access Sonoma Broadband division to coordinate countywide broadband planning and broadband deployment, grant application development, and outreach.

b. Support and facilitate the preparation of data and partnerships for grant applications and success, as further partnerships and funding opportunities are made available.

10. YOUTH AND FAMILY SERVICES POLICY

The traditional focus of the Local Coastal Plan has been on land use, housing, open space, and other land use related matters. While youth, family, and other social services are not typically considered in this context, many local jurisdictions are beginning to acknowledge the valuable contribution that these services make to a community's quality of life. Issues such as housing, recreation, and child care have a direct link to land use and applicable policies have been developed and are presented in this section. Other issues, such as neighborhood security, youth participation in government, child abuse, drug and alcohol prevention, etc. are not as directly related to land use but, nonetheless, Sonoma County recognizes the importance of these issues and will continue to solicit Federal and State funding to address a full range of health and human service programs designed to create an environment where the County's children, youth and families, senior citizens, and persons with disabilities live in secure and healthy communities. The County would continue to support programs intended to address such significant issues as the prevention of child abuse, youth violence, and drug and alcohol use by minors; as well as those programs which enhance diversity, promote parent education and support services, affordable child care, youth recreation programs, neighborhood revitalization, school based health services, and programs which provide for the needs of low income seniors and disabled persons.

Goal C-PF-8: **Provide a full range of health and human services to create secure and healthy communities.**

Objective C-PF-8.1: Promote living conditions in homes and neighborhoods that support safety and security for residents of unincorporated areas.

Objective C-PF-8.2: Encourage the development of quality child care facilities, including large and small family child care homes, and public and private daycare centers, in order to provide a wide range of alternatives that meet the diverse needs of children and parents.

Objective C-PF-8.3: Foster a safe living environment that encourages independence, promotes opportunities for socialization, and facilitates the creation of adequate and affordable housing options for seniors and persons with disabilities that consider all levels of care, including independent living, assisted living, board and care, skilled nursing facilities, and day care options.

The following policies shall be used to achieve these objectives:

Policy C-PF-8a: Public spaces shall be designed to reflect the needs of children, youth, families, seniors, and persons with disabilities; and to protect their safety. In designing park and recreational facilities, recognize that accessibility will vary depending on the location and purpose of the facility, consistent with State and Federal guidelines. **(GP2020)**

Policy C-PF-8b: Consider the potential negative impacts of proposed projects involving the selling or serving of alcohol or tobacco products or any other controlled substance of a similar nature. When reviewing new proposals, consider the site's proximity to other such uses and to youth serving facilities, and consider denial of Use Permit applications that would result in negative impacts. **(GP2020)**

Policy C-PF-8c: Encourage and support the availability of sites for community based health services, including school based health services and facilities. **(GP2020)**

Policy C-PF-8d: Encourage and support the availability of sites for alcohol, drug, and mental health treatment; as well as housing for persons receiving such treatment. **(GP2020)**

Policy C-PF-8e: Encourage opportunities for safe physical activity as an important component in the design and development of parks and public spaces. **(GP2020)**

Policy C-PF-8f: Child care facilities shall be allowed in all land use designations and encouraged in underserved areas. **(GP2020)**

Policy C-PF-8g: Child care facilities shall be allowed in new housing or office/industrial developments, and required in large projects where a legal nexus between the new development and the need for childcare can be established. **(GP2020)**

Policy C-PF-8h: Consider the needs of youth in transportation planning. Seek youth participation in such decisions. **(GP2020)**

Policy C-PF-8i: New housing and public facilities which provide youth, family, and senior services shall be sited near transit stops when feasible. **(GP2020)**

Policy C-PF-8j: Consider the needs and limitations of senior citizens and persons with disabilities when planning for public transit routes and equipment. **(GP2020)**

Policy C-PF-8k: Consistent with the Land Use Element, provide seniors and persons with disabilities with access to affordable housing by continuing to assist in the planning and construction of such housing. **(GP2020)**

11. IMPLEMENTATION PROGRAMS

11.1 Public Facilities and Services Programs

Program C-PF-1: Work with the County Service Areas and Special Districts to provide local parks and recreation, public education, fire and emergency medical, law enforcement, solid waste management, and public utilities facilities and services. **(GP2020)**

Program C-PF-2: Develop and implement programs that include obtaining grants for supporting and assisting communities in upgrading failing OWTSs or developing on-site wastewater maintenance and management districts, community leachfields, or community wastewater treatment systems. **(GP2020)**

Program C-PF-3: Consider development of on-site wastewater maintenance and management districts in areas with OWTS problems. **(GP2020)**

Program C-PF-4: Where there is an unmet need for local park facilities in an area, and County Regional Parks does not have plans for facilities in the area, encourage the existing or formation of new County Service Areas or other Special Districts to meet the need, if economically feasible. **(GP2020)**

Program C-PF-5: Establish an adequate and reliable source of funding for fire protection agencies that would provide for adequate staffing, adequate volunteer support, and purchasing and maintaining modern fire equipment. Consider new or amended impact fees for new subdivisions or development as a means of funding improved fire protection services and facilities in the Coastal Zone. **(GP2020 Revised)**

Program C-PF-6: Support establishment of a regional fire protection district that provides adequate and reliable sources of funding for fire protection services. **(New)**

Program C-PF-7: Support the work of the County Fire Services Advisory Committee and its rural firefighting network assessment. Prepare a Fire Services Master Plan for urban and rural areas in cooperation with the State and other fire service agencies. The Master Plan shall be incorporated into the Local Coastal Plan. The minimum contents necessary for an adequate Master Plan are:

(1) A statement of objectives, policies, and programs.

(2) A forecast of growth.

(3) Projected fire protection and emergency medical service needs.

(4) A level of service assessment.

(5) A discussion of fire regulations and policies for "defensible space" consistent with California Coastal Act sections applicable to Environmentally Sensitive Habitat Areas (ESHAs). **(GP2020)**

Program C-PF-8: Consider streamlining zoning regulations, for which a Local Coastal Plan Amendment would be required, and reducing fees for large family child care homes and day care centers. Cooperate with the Sonoma County Child Care Planning Council and non-governmental organizations in creating a uniform and simplified review process for childcare facilities. **(GP2020)**

Program C-PF-9: Consider installing charging stations for, electric, or other alternative fuel vehicles at public facilities and other visitor serving uses. (**New)**

Program C-PF-10: Consider the following and develop improvement plans where appropriate:

(1) A community leachfield at Duncans Mills.

(2) Relocation of the OWTSs at Bridgehaven and Rancho del Paradiso.

(3) A community wastewater collection and treatment system or a package wastewater treatment plant at Jenner.

(4) A community wastewater collection and treatment system or a package wastewater treatment plant at Carmet.

At Salmon Creek and Wrights Beach: construction of a package wastewater treatment plant, relocation of the OWTSs away from houses, or construction of a community leachfield. **(New)**

11.2 Other Initiatives

Other Initiative C-PF-1: Consider preparation on a regular basis of a total water supply and use budget for the Sonoma County Coastal Zone to aid in land use planning and decision-making. Encourage Coastal Zone water service providers to prepare individual water supply and use budgets on a regular basis to provide the necessary information for the total water supply and use budget. **(New)**

Other Initiative C-PF-2: Work with Community Service Districts, Park & Recreation Districts, and School Districts to meet local community park needs. **(GP2020)**

Other Initiative C-PF-3: Assist school districts in estimating the amount, rate, and location of projected population growth in their attendance areas. **(GP2020)**

Other Initiative C-PF-4: Promote State funding of costs for patrolling new parks and public accessways which are mandated by the California Coastal Act. **(Existing LCP Revised)**

Other Initiative C-PF-5: Encourage the providers of telecommunication services, including broadband, to expand and improve services to the Sonoma County coast, including closure of the gap in existing fiber-optic cable between the north and south coast. **(New)**

Other Initiative C-PF-6: Support the Sonoma County Economic Development Board and the Broadband Alliance of Mendocino County in their efforts to expand and improve wireless broadband services on the Sonoma and Mendocino County coasts. **(New)**

Other Initiative C-PF-7: Encourage schools to offer recreation programs and before-school and after-school care whenever possible. **(GP2020)**

Other Initiative C-PF-8: Collaborate with stakeholders to establish long-term goals for improving the living conditions of children, youth, families, senior citizens, and persons with disabilities; and continue to monitor available data regarding their status. **(GP2020)**

Other Initiative C-PF-9: Work with school districts to provide safe walking and bicycle paths around schools and neighborhoods. **(GP2020)**

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

NOISE 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
September XX, 2019

NOISE ELEMENT

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NOISE ELEMENT

1. INTRODUCTION

1.1 Purpose

The Noise Element of the Local Coastal Plan is a planning document that provides a policy framework for addressing potential noise impacts during the planning process. The Noise Element is intended to provide ways to reduce existing and future noise conflicts. It includes policies and measures to achieve noise compatibility between land uses.

In accordance with State Law and guidelines (the California Coastal Act does not address Noise), the Noise Element identifies noise sources and noise sensitive land uses. It quantifies noise levels using noise exposure contours for current and projected conditions in the Sonoma County Coastal Zone. Existing noise Levels are measured as Community Noise Equivalent Level (CNEL) or the Day-Night Average Level (Ldn), which are measurements of total noise exposure at a given location on an average day. This noise exposure information serves as a basis for achieving land use compatibility within each community and provides baseline levels and noise source identification for use in a noise control ordinance or during the review of proposed development projects.

1.2 Relationship to Other Elements

The Noise Element is related to the Land Use, Circulation and Transit, Public Access, and Open Space and Resource Conservation Elements of the Local Coastal Plan. Recognition of the interrelationship of noise and these Elements is necessary to prepare an integrated Local Coastal Plan. The relationship between these Elements is briefly discussed below:

1.2.1 Land Use Element

An objective of the Noise Element is to provide noise exposure information for use in the Land Use Element. When integrated with the Noise Element, the Land Use Element will show acceptable land uses in relation to existing and projected noise levels.

1.2.2 Circulation and Transit Element

The circulation system, which is a major source of noise, must be correlated with the Land Use Element. This is especially true for roadways which carry significant numbers of trucks. Noise exposure will thus be a decisive factor in the location and design of new transportation facilities, and in the mitigation of noise produced by existing facilities.

1.2.3 Open Space and Resource Conservation and Public Access Elements

Excessive noise adversely affects the enjoyment of recreational pursuits in designated open space areas; particularly in areas where quiet is a valued part of the recreational experience. Thus, noise exposure should be considered in planning for this kind of open space use. Conversely, open space can be used to buffer noise-sensitive uses from noise sources by providing setbacks and visual screening.

1.3 Scope and Organization

The Noise Element is organized into three sections: Introduction, Overview of the existing and future noise environment, and Noise issues, policies, and standards. Programs needed to implement proposed policies are also identified. In addition, the Element calls out ongoing or potential future County initiatives, referred to as "Other Initiatives", that support noise management within the planning area.

Noise exposure information should be included in a Noise Element for the following major noise sources in the Coastal Zone:

(1) Highways and freeways

(2) Primary arterials and major local streets

(3) Local industrial facilities

(4) Recreational, entertainment, and special events

(5) Other stationary sources

Noise-sensitive uses include the following:

(1) Residences

(2) Schools

(3) Hospitals, nursing homes

(4) Churches, libraries

(5) Long-term medical or mental health care facilities

(6) Office building interiors

(7) Other uses deemed noise sensitive by the local jurisdiction

A *Noise Element Technical Reference Document*, on file at Permit Sonoma, describes in greater detail the effects of noise on people and techniques for noise analysis and control. It also includes data from the community noise survey and highway noise

evaluation. It is a reference for use by Sonoma County during the review of documents or proposals which refer to the measurement and effects of noise.

2. NOISE BACKGROUND

2.1 Methods of Noise Analysis

2.1.1 Noise and Its Effects on People

Noise is often described as unwanted sound, and thus is a subjective reaction to the physical phenomenon of sound. Sound is variations in air pressure that the ear can detect. Noise has often been cited as a health problem because it inhibits general well-being and contributes to undue stress and annoyance. Noise interferes with sleep, speech, recreation, and tasks demanding concentration or coordination. The result is an increase in public annoyance with the noise source and a decrease in environmental quality. The various noise exposure limits of different state and federal agencies range from 75 to 90 dB to protect hearing over the long-term. However, the United States Environmental Protection Agency recommends a level of 55 dB L_{dn} to protect against non-auditory health effects such as hypertension, cardiovascular disease, and nervous disorders.

In very quiet environments, virtually any change in local activities may cause an increase in noise levels and a loss of peace and quiet. Such increases may be considered significant by residents in these areas, even if the measured increase is small.

2.1.2 Measuring Sound Levels

Decibel (dB). The most common unit of sound measurement is the decibel, abbreviated as dB. The threshold of hearing is considered to be 0 dB, and the range of sounds in normal human experience is 0 to 140 dB.

Weighting Scales (dBA). Sound waves travel at different frequencies. Because the human ear is not as sensitive at some frequencies, different sound weighting scales have been developed. The "A" weighting scale is the most commonly used for environmental noise assessment, as it correlates well with human response to noise sources such as aircraft and traffic. To measure low frequency sound levels, such as blasting, the use of a “C” weighting scale may be more appropriate. When an A-weighting scale is used to measure sound pressure levels, the results may be expressed as dBA or dB(A) for clarity.

Typical Sound Levels. Table C-NE-1 shows typical sound levels and relative loudness for various types of noise environments.

Table C-NE-1: Examples of A-Weighted Sound Levels and Relative Loudness

Sound	Sound Level (dBA)	Relative Loudness (approx.)	Relative Sound Energy
Jet aircraft, 100 feet	130	128	10000000
Rock music with amplifier	120	64	1000000
Thunder, snowmobile (operator)	110	32	100000
Boiler shop, power mower	100	16	10000
Orchestral crescendo at 25 feet, noisy kitchen	90	8	1000
Busy street	80	4	100
Interior of department store	70	2	10
Ordinary conversation, 3 feet away	60	1	1
Quiet automobile at low speed	50	1/2	0.1
Average office	40	1/4	0.01
City residence	30	1/8	0.001
Quiet country residence	20	1/16	0.0001
Rustle of leaves	10	1/32	0.00001
Threshold of hearing	0	1/64	0

SOURCE: U.S. Department of Housing and Urban Development, "Aircraft Noise Impact -- Planning Guidelines for Local Agencies," 1972.

Ambient Noise Levels. The ambient (or background or pre-project) noise level is defined as the noise from all sources near and far, and usually refers to the noise level that is present before a noise source being studied is introduced.

Sound Average Level Over Time (L_{eq}, CNEL, and LDN). L_{eq} represents the average or equivalent measured energy from all noise events observed or measured during a specified interval of time. Noise exposure contours or noise contours are lines drawn about a noise source representing constant levels of noise energy or exposure. The CNEL and LDN descriptors are variations of the L_{eq} that represent the average noise level for a 24-hour day after including a 10 dB penalty for noise levels occurring at night between the hours of 10:00 p.m. and 7:00 a.m. The CNEL descriptor additionally includes a penalty of 5 dB for noise levels occurring during the evening hours of 7:00 p.m. and 10:00 p.m. The CNEL descriptor is required when preparing noise exposure maps for airports within the State of California. The L_{dn} descriptor has been used in this Noise Element to quantify noise from transportation noise sources. The

CNEL and L_{dn} descriptors are generally considered to be equivalent to each other for most community noise environments within 1.0 dB.

Sound Level Exceeded During Specified Percentage of Time. (L_{10}, L_{50}, L_{90}, L_{MIN}, L_{MAX}, etc.). If a noise source operates only a few hours a day, averaging the noise over 24 hours may under-estimate its nuisance potential (example: live amplified music, drag races). Because many industrial or stationary noise sources operate sporadically, the hourly L_{50} and L_{max} are more useful for predicting noise conflicts from such sources than is the L_{dn}. The L_{50} represents the median noise level or noise level exceeded 50% of the time. The maximum (L_{max}) noise level is the highest level observed. To describe less extreme variations in sound levels, other statistical descriptors may be used, such as the L_{10} and L_{50} and L_{90}.

2.1.3 Community Noise Survey

A community noise survey was conducted to document noise exposure in representative areas of the County containing noise-sensitive land uses. The following noise-sensitive land uses were identified for the purpose of this survey:

(1) All residential uses

(2) Schools

(3) Long-term care medical facilities such as hospitals and nursing homes

(4) Places of public worship

(5) Libraries

Noise monitoring sites were selected to be representative of typical conditions where such uses are located. Short-term community noise monitoring sites were located at The Sea Ranch, Timber Cove, Fort Ross, Jenner, and Bodega Bay. The community noise measurements were conducted in July 2002, and indicate that typical cumulative noise levels in noise-sensitive areas range from 45 to 55 dB L_{dn}. The community noise survey results indicated that median (L_{50}) noise level values in most locations are relatively low, especially at night. The relatively low noise levels are typical of small communities and rural areas. In more developed areas, increased local traffic will result in higher noise levels, in the range of 55 to 65 dB L_{dn}. Noise level data collected during the community noise survey are summarized in the *Noise Element Technical Reference Document*.

2.2 Noise Sources

2.2.1 Overview of Noise Sources

The noise exposure information developed during preparation of this Noise Element does not include all conceivable sources of noise in the Coastal Zone, but rather focuses on the existing sources of noise which have been identified by the County as being potentially significant. As the policies of this Noise Element are applied in the future, it is likely that other potentially significant sources will be identified.

The following potentially significant sources of community noise in the Coastal Zone are addressed in this Noise Element:

(1) Traffic on State highways and major County roads

(2) Heavy commercial and industrial activities (i.e., Commercial Fishing)

(3) Mineral extraction

(4) Solid waste landfills and transfer stations

(5) Concerts, special events, and other activities generating amplified outdoor sound

2.2.2 Highways and Roadways

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model was used to develop L_{dn} contours for roadways in Sonoma County. The FHWA Model is the analytical method currently favored by most state and local agencies. Existing traffic volume data were obtained from Caltrans and the Sonoma County Department of Transportation and Public Works. Truck volume estimates were based on the data provided by Caltrans and observations of relative truck mix on County roads. Future traffic volumes are from the Circulation and Transit Element, and were calculated for 2020 traffic volumes.

The most significantly noise-impacted highways and roadways are Highway 1 and Highway 116 based on future 2020 traffic volumes. In the Coastal Zone, from north to south, segments of State Route 116, State Route 1, and Petaluma-Valley Ford Road are noise impacted:

(1) *State Route 116*: from its intersection with State Route 1 to the boundary of the Coastal Zone north of Duncans Mills

(2) *State Route 1*: south of Jenner to its intersection with Petaluma-Valley Ford Road

(3) *Petaluma-Valley Ford Road*: from its intersection with State Route 1 to the eastern boundary of the Coastal Zone

The *Noise Element Technical Reference Document*, on file with Permit Sonoma, lists the distances from roadway centerlines to the existing and future 60 and 65 dB L_{dn} contours for State highways and County roads having average daily traffic volumes (ADT) greater than 5,000 vehicles per day.

Noise contours do not account for shielding caused by local buildings or topographical features and should therefore be considered as worst case estimates of noise exposure along roadways.

2.2.3 Heavy Commercial and Commercial Fishing Activities

The production of noise is an inherent part of many industrial, commercial, commercial fishing and agricultural processes, even when the best available noise control technology is applied. In the Coastal Zone limited industrial uses are only allowed within the Commercial Fishing district. Commercial Fishing uses include but are not limited to fish processing, and boat and equipment repair and storage. Noise production within industrial or commercial facilities is controlled indirectly by federal and state employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise emissions from such operations have the potential to exceed locally acceptable standards at nearby noise-sensitive land uses.

Noise exposure information for representative industrial noise sources is contained in the *Noise Element Technical Reference Document*. Predicted distances to the 45 dBA and 50 dBA hourly L_{50} noise contours were prepared for representative industrial noise sources in the County where such contours would extend offsite (Table 2-3 of the *Technical Reference Document*). These generalized contours should be used as a screening device to determine when potential noise-related land use conflicts may occur, and when site-specific studies may be required to properly evaluate proposed industrial noise at a given noise-sensitive receiver location.

Wood remanufacturing operations is one example of these representative industrial noise sources. Activities include lumber sawing and heavy truck operations. The approximate distances to the 45 and 50 dB hourly L_{50q} contours were 1,040 feet and 580 feet, respectively, measured from about 150 feet inside the main entry gate.

Marine commercial and industrial operations, allowed with a Use Permit only on land designated and zoned Commercial Fishing, are a representative heavy commercial noise source in the Coastal Zone. Typical activities include boat repair and maintenance, welding and small machinery repair, operation of ice and blower machinery, fish off-loading, gear loading, boat haul-out and hoisting, boat pump-out, and boat launching. While literature on the typical noise levels generated by these activities is not readily

available, noise consultants indicate the noise levels would be similar to those generated by a heavy metal fabrication facility.

Potential new industrial noise sources other than agricultural support uses will be located in the areas designated as commercial on the Land Use Plan. Projects in those locations and in adjacent residential areas will be reviewed for consistency with the performance standards in this Noise Element, including the identification of intermittent noise sources (such as blasting) that may warrant the need for noise analysis using the "C" noise weighting scale.

2.2.4 Mineral Extraction

Mineral resource extraction and processing, which involves the use of noise-producing machinery, is subject to the policies of the 1994 Sonoma County Aggregate Resources Management Plan (ARM Plan) and Sonoma County Code Chapter 26A (Surface Mining), Article IX (Standards for Mining Permits and Operations), Section 26A-09-010(I) (General Standards for Mining Permits and Operations, Noise Control).

Both the ARM Plan and Sonoma County Code Section 26A-09-010(I) state that maximum acceptable noise levels for all aggregate operations shall be as set forth in the Noise Element of the Sonoma County General Plan. The Sonoma County Local Coastal Plan serves as the General Plan for the Coastal Zone. The Sonoma County Code also states that more stringent noise standards may be required as permit conditions when particular local circumstances warrant additional protection of potentially affected areas; and noise control measures may be added to the permit conditions in the future after the permit has been issued.

The Bodega Bay Quarry, former Cheney Gulch Quarry, was located about one and one-quarter miles southwest of the intersection of State Highway 1 and Bodega Highway. It was an active hard rock quarry producing aggregate road base, drain rock, and rip-rap for about 60 years. The Quarry was released and reclaimed in 2012. The ARM Plan identifies a potential quarry expansion area that contains mineral resources to the north, east, and west of the quarry. However, the development or expansion of mining activities in the identified expansion area is considered highly speculative and of uncertain feasibility due to geologic conditions, regulatory constraints, approval requirements, and aggregate transport costs.

Currently no other mineral resource extraction and processing facilities exist in the Coastal Zone. In order to establish a new facility in the Coastal Zone, a Zone Change to add the Mineral Resources (MR) Combining Zoning District, a Use Permit, and environmental review would be required. Any new mineral resource extraction and

processing facility would be considered as a potential noise source as part of environmental review of proposed projects which involve development of nearby noise-sensitive land uses.

Generally, mineral extraction and processing activities include the extraction, processing, and loading of sand, gravel, and other construction aggregates. Noise producing equipment operated at the facility includes conveyors, screeners, rock crushers and loaders, and earth moving equipment. Blasting operations may also occur. Representative measured noise levels were as high as an L_{eq} of 84.8 dB and an L_{max} of 93.8 dB (dominated by a truck exiting the site). Representative approximate distances to the 45 and 50 dB hourly L_{50} contours varied from 1,000 to 5,200 feet and 560 to 2,970 feet, respectively, measured from 100 to 500 feet inside the entry gate.

2.2.5 Solid Waste Disposal

Solid waste operations are regulated by various State laws, including the requirement for each County to have an Integrated Waste Management Plan. The current *County-Wide Integrated Waste Management Plan* (CoIWMP) was adopted on October 15, 2003. The EIR assessed noise impacts to surrounding noise sensitive land uses, and established mitigation measures that are operational conditions for the main landfill and various transfer stations.

Currently there are no solid waste operations in the Coastal Zone. Noise associated with solid waste disposal facilities and transfer stations is produced by the use of engine-powered equipment and by heavy truck movements. During operating hours, landfill operations involve the use of bulldozers, scrapers, compactors, loaders, and watering trucks. At transfer sites, noise is produced by the use of loaders and transient heavy trucks. The access roads for landfills and transfer stations usually experience a greater proportion of heavy truck traffic than otherwise similar roads. As a result, areas containing roads accessing solid waste facilities may experience higher traffic noise levels than other areas of the County.

2.2.6 Cultural Events

Cultural events such as festivals and concerts, may include the use of amplified sound systems. These activities can produce unacceptable noise levels especially during evening hours, and the associated traffic problems may heighten public concern about the noise-producing activity. Given the potential conflicts due to noise associated with events, concerts, and other such activities, noise will continue to be considered in the review process for proposals which allow special events.

3. NOISE POLICY

3.1 Land Use Compatibility and Project Review

Noise level performance standards in **Table C-NE-2** are to be applied as performance standards for noise producing land uses which may affect noise sensitive land uses and new noise sensitive land uses proposed near noise generating land uses.

Infrequent single events such as passage of a train, truck, or airplane may interfere with adjacent uses even though the cumulative noise exposure is within acceptable limits. These events call for a single event noise standard. The potential for sleep disturbance is often the main concern in these cases.

Table C-NE-2: Maximum Allowable Exterior Noise Exposures for Non-Transportation Noise Sources

Hourly Noise Metric[1] (dBA)	Daytime 7 am to 10 pm)	Nighttime (10 pm to 7 am)
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (5 minutes in any hour)	60	55
L02 (1 minute in any hour)	65	60

NOTE:
[1] The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level. The L02 is the sound level exceeded 1 minute in any hour.

GOAL C-NE-1: **Protect people from the adverse effects of exposure to excessive noise and to achieve an environment in which people and land uses may function without impairment from noise.**

Objective C-NE-1.1: Provide noise exposure information so that noise impacts may be effectively evaluated in land use planning and project review.

Objective C-NE-1.2: Provide noise exposure information so that noise impacts may be effectively evaluated in land use planning and project review.

Objective C-NE-1.3: Protect the present noise environment and prevent intrusion of new noise sources which would substantially alter the noise environment.

Objective C-NE-1.4: Mitigate noise from recreational and visitor-serving uses.

The following policies shall be used to achieve these objectives:

Policy C-NE-1a: Designate areas in the Sonoma County Coastal Zone as noise impacted if they are exposed to existing or projected exterior noise levels exceeding 60 dB Ldn, 60 dB CNEL, or the performance standards of Table C-NE-2. **(GP2020)**

Policy C-NE-1b: Avoid noise sensitive land use development in noise impacted areas unless effective measures are included to reduce noise levels. For noise due to traffic on public roadways, railroads and airports, reduce exterior noise to 60 dB Ldn or less in outdoor activity areas and interior noise levels to 45 dB Ldn or less with windows and doors closed. Where it is not possible to meet this 60 dB Ldn standard using a practical application of the best available noise reduction technology, a maximum level of up to 65 dB Ldn may be allowed but interior noise level shall be maintained so as not to exceed 45 dB Ldn. For uses such as Single Room Occupancy, Work-Live, Mixed Use Projects, and Caretaker Units exterior noise levels above 65 dB Ldn or the Table C-NE-2 standards may be considered if the interior standards of 45 dB Ldn can be met. For schools, libraries, offices, and other similar uses, the interior noise standard shall be 45 dB Leq in the worst case hour when the building is in use. **(GP2020)**

Policy C-NE-1c: Control non-transportation related noise from new projects. The total noise level resulting from new sources shall not exceed the standards in Table C-NE-2 as measured at the exterior property line of any adjacent noise sensitive land use. Limit exceptions to the following:

(1) If the ambient noise level exceeds the standard in Table C-NE-2, adjust the standard to equal the ambient level, up to a maximum of 5 dBA above the standard, provided that no measurable increase (i.e. +/- 1.5 dBA) shall be allowed.

(2) Reduce the applicable standards in Table C-NE-2 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises, such as pile drivers and dog barking at kennels.

(3) Reduce the applicable standards in Table C-NE-2 by 5 decibels if the proposed use exceeds the ambient level by 10 or more decibels.

(4) For short-term noise sources which are permitted to operate no more than six days per year, such as concerts or race events, the allowable noise exposures shown in Table C-NE-2 may be increased by 5 dB. These events shall be subject to a noise management plan including provisions for maximum noise level limits, noise monitoring, complaint response and allowable hours of operation. The plan shall address potential cumulative noise impacts from all events in the area.

(5) Noise levels may be measured at the location of the outdoor activity area of the noise-sensitive land use, instead of the exterior property line of the adjacent noise-sensitive land use where:

(a) The property on which the noise sensitive use is located has already been substantially developed pursuant to its existing zoning, and

(b) There is available open land on those noise-sensitive lands for noise attenuation.

This exception may not be used on vacant properties which are zoned to allow noise-sensitive uses. **(GP2020)**

Policy C-NE-1d: Require an acoustical analysis prior to approval of any development involving a potentially significant new noise source or a noise sensitive land use in a noise impacted area. The analysis shall:

(1) Be the responsibility of the applicant.

(2) Be prepared by a qualified acoustical consultant.

(3) Include noise measurements adequate to describe local conditions.

(4) Include estimated noise levels in terms of Ldn and/or the standards of Table C-NE-2 for existing and projected future (20 years hence) conditions, based on accepted engineering data and practices, with a comparison made to the adopted policies of the Noise Element. Where low frequency noise (example: blasting) would be generated, include assessment of noise levels and vibration using the most appropriate measuring technique to adequately characterize the impact.

(5) Recommend measures to achieve compliance with the Noise Element. Where the noise source consists of intermittent single events, address the effects of maximum noise levels on sleep disturbance.

(6) Include estimates of noise exposure after these measures have been implemented.

(7) Be reviewed by the Permit Sonoma and found to be in compliance with the Permit Sonoma guidelines for the preparation of acoustical analyses. **(GP2020)**

Policy C-NE-1e: Continue to follow building permit procedures to ensure that requirements based on the acoustical analysis are implemented. **(GP2020)**

Policy C-NE-1f: Require development projects to include noise mitigation measures as necessary to maintain noise levels compatible with activities planned for the project site and vicinity. **(GP2020)**

Policy C-NE-1g: County equipment and vehicles shall comply with adopted noise level performance standards consistent with the best available noise reduction technology. **(GP2020)**

3.2 Transportation Noise

Transportation sources are by far the most significant sources of environmental noise in Sonoma County. They include vehicular traffic, especially trucks, rail operations, and aircraft overflights in the approach areas to airports. In the Coastal Zone State Highway 1 and The Sea Ranch Airport are sources of noise. An important part of planning for a healthful environment is the avoidance of unnecessary transportation noise. The Circulation and Transit Element includes policies intended to reduce traffic congestion and keep traffic flowing smoothly, thereby helping lower expected future noise levels.

GOAL C-NE-2: **Confine the noise impacts from transportation facilities to the smallest feasible land areas and to assure that any development therein be compatible with the level of noise exposure.**

Objective C-NE-2.1: Design and manage transportation systems to produce the lowest feasible noise levels and impacts on noise sensitive land uses.

Objective C-NE-2.2: Provide highway, railroad, and air transportation systems and services so that the extension of the boundaries of projected 60 dBA noise contours for 2020 is discouraged.

The following policies, in addition to those of the Circulation and Transit Element, shall be used to achieve these objectives:

Policy C-NE-2a: When not in conflict with Scenic Resource (SR) zoning or other Local Coastal Program policies, encourage installation of noise reducing pavement types or other noise reducing solutions on roadways in non-industrial areas where an exterior noise level of 65 dB Ldn or more is attained and residences or other noise sensitive uses exist. **(GP2020)**

Policy C-NE-2b: Consider using truck routing, speed limits, signal timing and other traffic control measures to reduce impacts on noise sensitive uses. **(GP2020)**

Policy C-NE-2c: Consider measures to reduce peak traffic volumes as a means to reduce highway related noise. **(GP2020)**

Policy C-NE-2d: Where practical, select route alignments for new roadways and major improvements to existing highways to avoid or minimize noise impacts on noise sensitive land uses. **(GP2020)**

Policy C-NE-2e: Where practical, include noise control measures (based on vehicular volume and speed) in County funded construction of new roadways and additional through travel lanes to maintain noise compatibility with noise sensitive land uses. The

goal of these measures shall be to prevent the road project from causing the total exterior noise level to increase above 60 dBA Ldn, as estimated adjacent to dwellings and other noise sensitive primary uses. Where full implementation of such measures is not possible, desirable, or appropriate, the reasons for that determination shall be stated clearly by County decision makers. **(GP2020)**

4. IMPLEMENTATION PROGRAMS

4.1 Noise Programs

Program C-NE-1: Prepare and consider a noise control ordinance to regulate existing noise sources as follows:

(1) The draft ordinance shall be prepared by County Counsel with the assistance of the Public Health Department, the Sheriff's Department, and Permit Sonoma.

(2) Consider ONC guidelines and ordinances of other counties.

(3) The intent of the ordinance shall be to protect persons from existing or future excessive levels of noise which interfere with sleep, communication, relaxation, health or legally permitted use of property.

(4) Excessive levels of noise shall be defined as levels which exceed the standards of Table C-NE-2 and other policies of the Noise Element.

(5) In unincorporated areas of the County, it shall be unlawful to create noise which exceeds the standards of Table C-NE-2, as measured at the exterior of any noise sensitive use.

(6) The noise ordinance may contain maximum allowable levels of interior noise created by exterior sources.

(7) The ordinance may exempt or modify noise requirements for agricultural uses, construction activities, school functions, property maintenance, heating and cooling equipment, utility facilities, waste collection and other sources.

(8) The ordinance shall include responsibilities and procedures for enforcement, abatement and variances. **(GP2020)**

Program C-NE-2: Consider requiring the monitoring of noise levels for development projects to determine if noise levels are in compliance with required standards. The cost of monitoring shall be the responsibility of the applicant. **(GP2020)**

Program C-NE-3: Incorporate into the Coastal Development Code the standards and policies of the Noise Element where appropriate. **(GP2020)**

4.2 Other Initiatives

Other Initiative C-NE-1: Encourage the California Highway Patrol to actively enforce sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems. **(GP2020)**

Other Initiative C-NE-2: Make available to the public all maps or data on hand concerning the existing or future noise levels generated by transportation sources. **(GP2020)**

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PUBLIC REVIEW DRAFT

Sonoma County
Local Coastal Plan

GLOSSARY
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
September XX, 2019

GLOSSARY

Unless the context clearly implies a contrary meaning or unless a rigid application of the definition would be contrary to the law, the following words, when used in the Local Coastal Plan, shall be construed as follows:

AASHTO Road Classification: A system of road classification based on the intended function of roads within the context of the overall road network. Arterial roads are intended to provide high capacity and mobility between cities, and other major population and job centers. Collectors connect local homes, job, and retail centers to the arterial network. Local roads serve individual homes, farms and businesses, and feed into the collector network. The road network functional hierarchy can be further refined by subdividing collectors and arterials into major and minor subclassifications.

There are slight differences in road geometry between rural and urban road classifications. The principal difference is the proportion of each class in the road network: Urban areas contain a relatively high number of arterials, whereas rural road networks have a fewer arterial and a relatively large number of collectors. In all classifications road width is flexible, and can be modified to suit local conditions, where necessary.

The following are road width standards for two lane roads unless otherwise noted:

> *Rural Local Road*: For roads with design speeds of less than 40 mph and volumes under 400 vehicles per day, the standard road width is 22 feet, with the exception of steep or hilly terrain, where the width may be reduced. Road width for maximum speed (60 mph) and volume (over 2000 vehicles per day) is 40 feet.
>
> *Rural Collector (Major or Minor)*: For roads with design speeds of less than 40 mph and volumes under 250 vehicles per day, the standard road width is 22 feet. Road width for maximum speed (60 mph) and volume (over 2000 vehicles per day) is 40 feet.
>
> *Urban Collector (Major or Minor)*: Standard width is the same as Rural Collectors, with additional allowances for bicycles, sidewalks, curbs, drainage, setbacks for public utilities, street lighting, and parking.
>
> *Rural Arterial (Major or Minor)*: For roads with design speeds of less than 55 mph and volumes under 400 vehicles per day, the standard road width is 30 feet. Road width for maximum speed (75 mph) and volume (over 2000 vehicles per day) is 40 feet. Additional width is suggested if significant truck traffic is anticipated. Arterials are often multi-lane, and may be divided. Parking and individual driveways are discouraged.
>
> *Urban Arterial (Major or Minor)*: For roads with design speeds of less than 45 mph, the standard road width is 30 feet. Standard road width for maximum

speed (75 mph) and volume (over 2000 vehicles per day) is 40 feet. Additional width is suggested if significant truck traffic is anticipated. Arterials are often multi-lane, and may be divided. On street parking and individual driveways are discouraged. Allowances should be made for sidewalks, curbs, drainage, setbacks for public utilities, and street lighting. Where urban arterials intersect collectors or local roads, grade separations should be used when feasible.

Freeway: Design speed is in excess of 55 mph. Access is limited and the road is grade separated at all intersections. Travel and breakdown lanes are 12 feet wide. Maximum grade is 6%, with less than 3 percent preferred. Design of bridges, culverts, walls, tunnels, other structures should be in accordance with current Caftans standards and AASHTO Standard Specification for Highway Bridges.

The following are horizontal road clearance standards:

Rural Local Road: 7 feet clearance from the edge of the traveled way to unyielding objects such as trees, buildings, or other fixed objects that might severely damage an out of control vehicle. The benefits of removing obstructions should be weighed against environmental or aesthetic impacts.

Collectors (Rural and Urban): 10 feet clearance from the edge of the traveled way to unyielding objects such as trees, buildings, or other fixed objects that might severely damage an out of control vehicle. The benefits of removing obstructions should be weighed against environmental or aesthetic impacts.

Arterial (Rural and Urban): Roadside should be clear and unobstructed as described in the AASHTO Roadside Design Guide. This standard involves detailed road specific calculations, but as a general rule, a clear zone of 20 feet is standard for roads with a 55 mph design speed.

Definitions and Commonly Used Terms

Abut: To touch along a border or with a projecting part; to border on.

Accessory Building: A subordinate building, the use of which is incidental to that of the main building on the same lot or building site.

Accessory Dwelling Unit: An attached or detached residential dwelling unit provided in compliance with Section 26C-325.1, which provides complete independent living facilities for one (1) or more persons, and includes separate permanent provisions for entry, living, sleeping, eating, cooking and sanitation on the same parcel as a single-family dwelling. An accessory dwelling unit may also be provided as an efficiency dwelling unit and/or a manufactured home, as defined in this section. Also known as Second Dwelling Units.

Adaptive Reuse: The process of reusing an existing building for a purpose other than which it was originally built or designed for.

Adjacent: Having a common border.

Adjoin: Lie next to or in contact with.

Affordable Housing: Housing which costs no more than 30 percent of a low or very low income household's gross monthly income. For rental housing, the residents pay up to 30 percent of gross income on full-service rent (including utilities) or the combination of rent and separate utility costs. For home ownership, residents pay up to 30 percent on the combination of mortgage payments, taxes, insurance, and utility costs.

Agricultural Area: See Agricultural Production Area

Agricultural Employee Housing: See Farmworker Housing

Agricultural Farmstay: See Farmstays

Agricultural Land: Land designated within an agricultural land use category.

Agricultural Operation: A specific agricultural use or business.

Agricultural Production Activities: Those activities directly associated with agriculture, but not including agricultural support services, processing, and visitor serving uses. This is the act of changing an agricultural product from its natural state to a different form, activities include growing, harvesting, crop storage, milking, etc.

Agricultural Production Area: Land used to produce food, fiber, or plant materials, and its immediate surrounding area.

Agricultural Support Services: Processing services, maintenance and repair of farm machinery and equipment, veterinary clinics, custom farming services, agricultural waste handling and disposal services, and other similar services.

Agricultural Tourism: Agriculturally based operation or activity that brings visitors to a farm or ranch in order to promote the sale of agricultural products produced on-site.

Agriculture: The production of food, fiber, plant materials, and the raising and maintaining of horses, donkeys, mules, and similar livestock and farm animals.

Alluvium: clay, silt, sand, gravel, or similar detrital material deposited by running water

Alternative On: Engineered septic and leach field systems that Sonoma County has been authorized to permit on a routine basis. Currently these include Filled Land, Shallow Sloping, Pressure Distribution and Mound septic systems. The Filled Land and Shallow Sloping systems are similar to Standard Septic System servicing requirements, while Mound and Pressure Distribution Systems require quarterly monitoring, an easement allowing the County to conduct annual monitoring of these systems, and an annual operating permit.

Alternative Sewage Disposal System: A non-standard sewage disposal system that has demonstrated satisfactory operation, maintenance, and monitoring under Phase I and Phase II of the Non-standard Sewage Disposal Program and approved by the County.

Alternative Transportation Mode: Low impact, non-polluting vehicles intended for personal mobility. Electric scooters are an example of an alternative transportation mode.

Animal Husbandry: See Farm Animal Production

Aquaculture: That form of agriculture devoted to the propagation, cultivation, maintenance, and harvesting of aquatic plants and animals in marine, brackish, and fresh water. "Aquaculture" does not include species of ornamental marine or freshwater plants and animals not utilized for human consumption or bait purposes that are maintained in closed systems for personal, pet industry, or hobby purposes. Aquaculture products are agricultural products, and aquaculture facilities and land uses shall be treated as agricultural facilities and land uses in all planning and permit-issuing decisions governed by the California Coastal Act.

Aquifer: A geologic formation that stores, transmits, and yields significant quantities of water into wells and springs.

Arterial: Medium to high capacity roadway serving primarily through traffic.

Base Zone: The zoning district which describes and regulates the predominant use of the land to which additional combining districts may be applied.

Bikeway: Any facility that explicitly provides for bicycle travel. Bikeways are classified into three types denoting a degree of separation from the highway, as follows: Class 1 (completely separated right-of-way designated for the exclusive use of bicycles), Class II (a restricted right-of-way designated for the exclusive or semi exclusive use of bicycles), and Class III (a shared right-of-way designated by signing or stenciling on pavement).

Biosolids: Sewage sludge that has been treated, tested and shown to be capable of being used beneficially as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities.

Biotic Resource Area: Unique or significant plant or animal communities, including estuaries, fresh and salt water marshes, tideland resources, riparian corridors and certain terrestrial communities.

Bluff: A high bank or bold headland with a broad, precipitous, sometimes rounded cliff face overlooking a plain or body of water. A bluff may consist of a steep cliff face below and a more sloping upper bluff above.

Bluff Edge: The line of intersection between the steeply sloping bluff face and the flat or more gently sloping bluff top; or the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the bluff is rounded away from the face of the bluff as a result of erosion processes related to the presence of the steep bluff face, the bluff line or edge shall be defined as that point nearest the bluff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the bluff. In a case where there is a step-like feature at the top of the bluff face, the landward edge of the topmost riser shall be taken to be the bluff edge. Bluff edges typically retreat landward due to coastal erosion, landslides, development of gullies, or by grading (cut). In areas where the bluff top or bluff face has been cut or notched by grading, the bluff edge shall be the landward most position of either the current or historic bluff edge. In areas where fill has been placed near or over the historic bluff edge, the original natural bluff edge, even if buried beneath fill, shall be taken to be the bluff edge.

Bluff Top: The upper surface of a bluff or cliff.

Blufftop Redevelopment: Structures located between the sea and the inland extent of the sea and the first public road paralleling the sea (or lagoon) that consist of additions, exterior or interior renovations, or demolition of an existing blufftop home or other principal structure which result in:

(1) Alteration of 50 percent or more of an existing structure, including but not limited to, alteration of 50 percent or more of the roof, foundation, exterior walls, interior load-bearing walls, or a combination of both types of walls, or a 50 percent increase floor area; or

(2) Demolition, renovation or replacement of less than 50 percent of an existing structure where the proposed remodel would result in cumulative alterations exceeding 50 percent or more of the existing structure from the date of California Coastal Commission certification of the Sonoma County Local Coastal Plan (December 2, 1981).

Bodega Harbor Tideflats: A marshy, sandy or muddy nearly horizontal coastal flatland which is alternately covered and exposed as the tide rises and falls. Vegetation is limited to algae and some other wetland vegetation.

Building Envelope: A defined location or locations on a parcel.

Build out: A theoretical level of development which assumes that every parcel of land will develop to the maximum allowed by a plan or zoning.

Channelization: The straightening and/or deepening of a water course for purposes of stream runoff control or ease of navigation. Channelization often includes the lining of stream banks with retaining material such as concrete.

Circulation: The movement of goods and people within a region.

Clear cutting: A method of timber harvest as defined by the California Department of Forestry and Fire Protection.

Clustered Development: Development in which a number of dwelling units are placed in closer proximity than usual, or are attached, with the purpose of retaining an expanse of undeveloped or less developed land.

Coast: The part of the land near the sea; the edge of the land.

Coastal Bluffs: Area between the cliff edge and the highest hide tide line. Bluffs or cliffs are scarps or steep faces of rock, decomposed rock, sediment or soil resulting from erosion, faulting, folding or excavation. When the top edge of the cliff is rounded away from the face of the cliff, the edge shall be defined as that point nearest the cliff beyond which the downward gradient of the land surface increase more or less continuously until it reaches the general gradient of the cliff.

Coastal County: A county or city and county which lies, in whole or in part, within the coastal zone.

Coastal-Dependent Development or Use: Any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Coastal-Related Development: Any use that is dependent on a coastal-dependent development or use.

Coastal Development Permit: A permit for any development within the coastal zone that is required pursuant to subdivision (a) of Section 30600 of the California Coastal Act.

Coastal Plan: The California Coastal Zone Conservation Plan prepared and adopted by the California Coastal Zone Conservation Commission and submitted to the Governor and the Legislature on December 1, 1975, pursuant to the California Coastal Zone Conservation Act of 1972 (commencing with Section 27000).

Coastal Redevelopment: Development that is located on a bluff top or at or near the ocean and land interface or at very low-lying elevations along the shoreline that consists of alterations including: 1) additions to an existing structure; 2) exterior or interior renovations; or 3) demolition of an existing bluff top home or other principal structure, or portions thereof, which results in:

(1) Alteration of 50 percent or more of major structural components including exterior walls, floor and roof, and foundation; or a 50 percent increase in floor area. Alterations are not additive between individual major structural components; however, changes to individual major structural components are cumulative over time from the effective date of the Coastal Act (January 1, 1977).

(2) Demolition, renovation, or replacement of less than 50 percent of a major structural component where the proposed alteration would result in cumulative

alterations exceeding 50% or more of a major structural component, taking into consideration previous alterations approved on or after the effective date of the Coastal Act (January 1, 1977); or an alteration that constitutes a less than 50 percent increase in floor area where the proposed alteration would result in a cumulative addition of greater than 50 percent of floor area, taking into consideration previous additions approved on or after the effective date of the Coastal Act(January 1, 1977).

Coastal Prairie and Grassland: Discontinuous grassland usually within 100 km of the coast; usually on southerly facing slopes or terraces. This habitat type is characterized by a mixture of heavily grazed, introduced annual grasses and some native perennial grasses, generally underlain by sandy to clay loam surface soils. This mapping category does not indicate pristine coastal prairie.

Coastal Woodland: Category grouping the redwood, mixed evergreen, closed cone pine, and oak woodland forests.

Coastal Zone: That land and water area of the State of California from the Oregon border to the border of the Republic of Mexico, specified on the maps identified and set forth in Section 17 of that chapter of the Statutes of the 1975-76 Regular Session enacting this division, extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards. The coastal zone does not include the area of jurisdiction of the San Francisco Bay Conservation and Development Commission, established pursuant to Title 7.2 (commencing with Section 66600) of the Government Code, nor any area contiguous thereto, including any river, stream, tributary, creek, or flood control or drainage channel flowing into such area.

Collector: A relatively low speed, low volume roadway which provides circulation within and between neighborhoods which is intended to collect trips from local streets and distribute them to the arterial network.

Combining District: A zoning designation which is superimposed over a base zoning district to modify the regulations in the base zoning district.

Commercial Fishing: See Marine Industrial

Community Noise Exposure Level (CNEL): CNEL is a measure of the cumulative effect of individual noise events averaged over a 24-hour period and weighted by the time of occurrence.

Compatible, Congenial, Harmonious with: As used in the land use and other elements, referring to land uses and types of development that can exist together without creating a conflict.

Conservation: The management of natural resources to prevent waste, depletion, destruction, or neglect.

Constraints: Impediments to development, such as slope instability, lack of adequate water.

Countywide: Sonoma County in its entirety; both the unincorporated areas and the Cities.

Cultivation: The act of preparing the soil for the raising of crops.

Cultural Resources: Physical evidence or place of past human activity: site, object, landscape, structure; or a site, structure, landscape, object or natural feature of significance to a group of people traditionally associated with it.

Cumulative Effect: The incremental effects of an individual project which shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Defensible space: A buffer zone created between a building on your property and the grass, trees, shrubs, or any wildland area that surrounds the building in order to slow or stop the spread of wildfire to protect your building from catching fire.

Density: As generally used in the land use element, the term refers to the number of acres per residential dwelling unit or the number of dwelling units per acre.

Development: On land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this definition, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line.

Discretionary Project or Permit: A project or permit which the decision making body may approve, approve with conditions or deny.

Disruption of Habitat Values: Physical removal, destruction, damage, disturbance, fragmentation, or contamination of air, land, water, soil, and vegetation of an area which cause the plant and animal habitats in the area to be removed, replaced by other habitats, or degraded to the point where the habitats are functionally unable to support the plant and animal species originally present.

Drainage Basin: A drainage basin is any area of land where precipitation collects and drains off into a common outlet, such as into a river, bay, or other body of water.

Dunes and Coastal Strand: Coastal dunes are sandy beach materials formed into dunes by the wind. Most of the ground is bare sand, either actively moving or stabilized by a vegetative cover: low growing annual or perennial herbs with low water requirements and a high salt tolerance. (Coastal Strand is the plant community found on sandy beaches and dunes scattered along the entire coast).

Dwelling Unit: A residence containing cooking, sleeping and sanitation facilities used to house the members of a household. Within the meaning of the General Plan, dwelling unit does not include a second dwelling as defined in the Sonoma County Code Section 26-10, nor to Farmworker and Farm Family Housing.

Earthquake Epicenter: The point on Earth's surface directly above the focus point of where the earthquake is originating underground.

Easement: Usually the right to use property owned by another for specific purposes.

Easement; Conservation, Scenic, or Open Space: An interest in real property whereby open space is secured.

Effluent: Liquid waste or sewage discharged into a river or the sea

Embankment: A man-made ridge, bank, mound, or dike of earth, gravel, or stone that carries a road or railway or confines or holds back water in a waterway.

Emergency Service: Emergency services conducted by public agencies or private firms including the following:

(1) Fire services including wildland fire suppression

(2) Police services

(3) Medical services

Energy Facility: Any public or private processing, producing, generating, storing, transmitting, or recovering facility for electricity, natural gas, petroleum, coal, or other source of energy.

Environment: The circumstances, objects, or conditions by which one is surrounded. The physical conditions including both natural and man-made, which exist within an

area including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.

Environmentally Sensitive Habitat Area: Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Environmentally sensitive habitat areas include those areas which meet one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

Environmentally Suitable: Having minimal or insignificant adverse impact on the environment.

Environmental Review: The identification and analysis of the potential adverse impacts of a proposed development on the environment conducted pursuant to the California Environmental Quality Act (Public Resources Code 21000 et seq); the California Environmental Quality Act Guidelines (Title 14, California Administrative Code Section 15000 et seq); and Sonoma County Code Section 23A-1 et seq.

Erosion: The loosening and transportation of rock and soil debris by wind, rain, or other running water or the gradual wearing away of the upper layers of the earth.

Estuary: The lower course of a river or stream where tidal influence is noticeable; the mixing zone of fresh and salt waters near the mouth of a river or stream.

Farm Animal Production: The raising, breeding, and maintaining of horses, donkeys, mules, and similar livestock and farm animals.

Farm Retail Sales: A small-scale retail facility for year-round sales of agricultural products grown or raised on the site or other properties owned or leased by the farm operator, and pre-packaged goods processed from onsite agricultural production, excluding alcoholic products. Examples include dairy and meat products that require refrigeration. Small-scale farm retail sales must be in compliance with the County Code. Sampling of products grown or processed on-site may be allowed with a Retail Food Facility Permit. Incidental sales of merchandise or goods not produced onsite is limited to ten percent (10%) of the floor area up to a maximum of fifty (50) square feet.

Farm Stand: An area for the temporary or seasonal sales and promotion of agricultural products that are grown or raised on the site and pre-packaged, shelf stable goods processed from onsite agricultural production, excluding alcoholic products. Examples include: produce, eggs, honey, jams, pickles, nuts, olive oil, and similar products. Farm

stands must be consistent with Section 47050 of the Food and Agricultural Code and Section 113778.2 of the Public Health and Safety Code. Sampling of products grown on-site may be allowed with a Retail Food Facility Permit. Incidental sales of merchandise or goods not produced on site is limited to ten percent (10%) of the floor area up to a maximum of fifty (50) square feet.

Farmland of Local Importance: Farmland other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. This land may be important to the local economy due to its productivity or value, as defined by the Board of Supervisors.

Farmstay: Transient lodging accommodations containing five or fewer guestrooms in a single- family dwelling or guest quarters provided as part of a farming operation, with an on-site farmer in residence, that includes all meals provided in the price of the lodging, and that meets all of the standards in the County Code.

Farmworker Housing: A dwelling unit or dwelling units occupied by persons employed by agricultural operations, and their dependents.

Feasible: That which is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal and technological factors.

Federal Coastal Act: The Federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451, et seq.), as amended.

Fill: Earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area.

Fish or Wildlife Corridor: A habitat linkage that joins two or more areas of fish or wildlife habitat, allowing for fish passage or the movement of wildlife from one area to another.

Flood, 100-year: The magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any given year.

Flood Control: Measures that are taken to increase the hydrologic capacity of a natural water course or to create new man-made channels or reservoirs to drain and contain precipitation that otherwise exceeds the capacity of the water course, in an effort to reduce flood damage, usually to man made improvements.

Flood Plain: The land area adjacent to a watercourse, drainage way, or creek which has been or may be covered by floodwaters. The boundaries of a flood plain are typically described in terms of the magnitude of a flood event such as the "100 year flood plain".

Floodway: The portion of a stream channel and the adjacent flood plain that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface more than one foot. The Flood Insurance Rate Maps show floodway boundaries for those streams studied as part of that program.

Fluvial: Of or found in a river.

Goal: A general statement of a desired end toward which an effort will be directed.

Guest Ranch: The guest ranch, also known as a dude ranch, is a type of ranch oriented towards visitors or tourism. It is also another form of Agritourism.

Guest Quarters: An accessory building to a single family dwelling which consists of a detached living area of a permanent type of construction. A guest house may contain a full or half bathroom, but may not contain provisions for appliances or fixtures for the storage and/or preparation of food, including, but not limited to, refrigeration, dishwashers or cooking facilities. The building shall not be leased, subleased, rented or sub-rented separately from the main dwelling except that a legal, fully permitted guest house may be used as a hosted rental. The floor area of a guest house shall be a maximum of six hundred forty (640) square feet. Floor area shall be calculated by measuring the exterior perimeter of the guest house and the length of any common walls. In the case of straw bale or similar construction, floor area may be calculated using interior dimensions. For the purpose of calculating the maximum size of a guest house, any storage area attached to the guest house, excluding garage, shall be included. A guest house shall be located closer to the primary dwelling on the subject lot than to a primary dwelling on any adjacent lot. The guest house shall not be located more than one hundred feet (100’) from the primary dwelling on the subject lot, except where the planning director determines that a greater setback is appropriate in light of topography, vegetation or unique physical characteristics.

Habitat Connectivity Corridor: A linkage needed to allow movement of wildlife across the landscape.

Headway: The time interval between transit vehicles, such as trains busses or ferries, moving in the same direction on a particular route.

Heritage Road: A public road with unique scenic, historic, recreational, cultural, archeological and/or natural qualities that may be compromised if the road is fully improved to meet current road standards.

High Public Occupancy: A building or structure with an occupant load of 300 or more persons, as determined by the occupant load calculation in the current adopted California Building Code.

Hosted Rental: A single family dwelling, with an owner in residence, where no more than one (1) bedroom, sleeping area or guest quarters, is available, used, let or hired

out for transient use, subject to standards in the County Code. See also Vacation Rental.

Household: The year round occupants of a dwelling unit.

Indemnity: Is a contractual obligation of one party to compensate the loss occurred to the other party due to the act of the indemnitor or any other party.

Impaired Surface Waters: A surface body or segment of water that does not meet applicable water quality standards.

Implementation: Actions, procedures, programs, or techniques that carry out policies.

Implementing Actions: The ordinances, regulations, or programs which implement either the provisions of the certified local coastal program or the policies of this division and which are submitted pursuant to Section 30502 of the California Coastal Act.

Incidental Sales: Sales of goods and products that are accessory and subordinate to the primary use of a property and conducted so as not to significantly change the character, appearance, or operation of the primary use.

Indicators: Quantifiable parameters and representative measurements of demographic, economic, social, environmental, and other conditions related to the quality of life and the effectiveness of General Plan goals, objectives, and policies.

Infill Development: Development of vacant or under used land (usually individual lots or left-over properties) within areas which are already largely developed.

Infrastructure: Public services and facilities, such as sewage disposal systems, other utility systems, and roads; generally refers to physical improvements as opposed to social services.

Junior Accessory Dwelling Unit: A living space not exceeding five hundred (500) square feet in size and contained entirely within a legally established bedroom within the walls of an existing, fully permitted single-family dwelling. A junior accessory dwelling unit shall include an efficiency kitchen, and may include separate sanitation facilities or share sanitation facilities with the existing structure.

Land Use: The occupation or utilization of land or water area for any human activity or purpose.

Land Use Plan: The relevant portion of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions.

Lateral Accessway: Accessway that extends from the mean high tide line landward to a defined line, such as the intersection of the sand with the toe of a revetment, vertical face of a seawall, toe of a bluff, or other feature.

Lead Agency: Means the public agency which has the principal responsibility for carrying out or approving a project.

Level of Service (LOS): Qualitative measure used to relate the quality of motor vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measure like vehicle speed, density, congestion, etc.

Liquefaction: Occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress such as shaking during an earthquake or other sudden change in stress condition, in which material that is ordinarily a solid behaves like a liquid.

Live-Work Use: Conduct of a business within a dwelling unit or accessory structure by occupants of the dwelling unit and employees, with the business activities being subordinate to the residential use of the site. Live/work is distinguished from home occupation, primarily in that the use involves more intensive activities and includes employees other than the residents of the dwelling. All live/work uses shall be conducted in accordance with the County Code.

Local Agency Formation Commission (LAFCO): A County commission that reviews and evaluates all proposals for the formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, merger of districts with cities, and setting of spheres of influence. Each county's LAFCO is empowered to approve, disapprove, or conditionally approve these proposals.

Local Area: Any of the unincorporated communities within the County or a geographic area, such as a valley, that is lesser in area than the planning area in which it is located.

Local Coastal Element: That portion of a general plan applicable to the coastal zone which may be prepared by local government pursuant to this division, or any additional elements of the local government's general plan prepared pursuant to Section 65303 of the Government Code, as the local government deems appropriate.

Local Coastal Program: A local government's (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of, the California Coastal Act at the local level.

Local Government: Any chartered or general law city, chartered or general law county, or any city and county.

Lot: See Parcel

Lot Size, Minimum: The smallest size parcel which is permitted to be created if a lot can be subdivided.

Major Employment Center: An area that is exclusively industrial and/or commercial with a total employment of 500 persons or more.

Major Subdivision: The division of any parcel or parcels of improved or unimproved land into five (5) or more parcels, pursuant to the provisions of the Subdivision Map Act (Government Code 66410 et seq) and the Subdivision Ordinance (Sonoma County Code, Chapter 25).

Marine Industrial: Land designated for or occupied by marine industrial development. The MI land use category encompasses land to accommodate a variety of commercial, light to medium industrial, and service uses which support the commercial fishing and other coastal dependent industries which depend on the marine environment and resources.

Maximum Single-event Noise Level (Lmax): Lmax is a measure that indicates the maximum noise level reached during a single event (i.e., aircraft overflight), expressed in dBA, at a specified point of measurement.

Minor Subdivision: The division of any parcel or parcels of improved or unimproved land into four (4) or fewer parcels, pursuant to the provisions of the Subdivision Map Act (Government Code 66410 et seq) and the Subdivision Ordinance (Sonoma County Code, Chapter 25).

Mitigate: To ameliorate, alleviate, or avoid to the extent reasonably feasible.

Mitigation Measure: An action or series of actions designed to avoid or lessen the extent of an adverse impact of a project, pursuant to the provisions of the California Environmental Quality Act Guidelines (14 Cal. Adm. Code Sec 15370).

Moratorium: Is a temporary suspension of an activity or a law until future events warrant lifting the suspension or issues regarding the activity have been resolved.

National Hydrography Dataset (NHD): The National Hydrography Dataset (NHD) is a combined dataset that provides hydrographic data for the United States. The NHD is the culmination of recent cooperative efforts of the U.S. Environmental Protection Agency (USEPA) and the U.S. Geological Survey (USGS). It combines elements of USGS digital line graph (DLG) hydrography files and the USEPA Reach File (RF3). The DLG Hydrography layer is primarily focused on flowing water, standing water, and wetlands. According to the USGS, these data are digital vector representations of cartographic information derived from USGS maps and related sources.

National Wetland Inventory (NWI): The NWI is a nationwide inventory of U.S. wetlands to provide biologists and others with information on the distribution and type

of wetlands to aid in conservation efforts. The NWI maps show the location and type (classification) of wetlands and deepwater habitats (streams, lakes, and estuaries) based on the official FWS wetland classification system (Cowardin et al. 1979).

Natural Resource: Something (as a mineral, waterpower source, forest, or kind of animal) that occurs in nature.

Noise: Unwanted sound produced by human activity that interferes with communication, work, rest, recreation, speech, and sleep.

Non-Conforming Use: A lawful use existing on the effective date of a zoning ordinance restriction and continuing since that date in nonconformance to the restriction.

Objective: A specific detailed statement of a desired future condition toward which the County is committed and progress is measurable.

Onsite Wastewater Treatment Systems: An individual wastewater treatment and dispersal system, small community collection, treatment and dispersal systems, or alternative collection and dispersal systems that use subsurface dispersal. These systems are commonly referred to as "septic systems".

Open Space: Any parcel or area of land or water which is essentially unimproved and devoted to an open space use as defined in Section 65560(b) of the Government Code.

Parcel: A legally defined lot, or contiguous group of lots, in single ownership or under single control, usually considered a unit for purposes of development.

Peak Hour: For any given roadway, the daily 60-minute period during which traffic volume is highest.

Performance Standards: Standards or criteria for regulating or determining the acceptability of certain land uses based upon the performance of the use.

Permit: Any license, certificate, approval, or other entitlement for use granted or denied by any public agency which is subject to the provisions of the California Coastal Act.

Permitted Use: A typical land use that is allowed within a particular General Plan Land Use category. A permitted use is considered to be consistent with and to further the objectives of the General Plan. Such a use may also be subject to performance or other development standards and approvals in the zoning ordinance.

Person: Any individual, organization, partnership, limited liability company, or other business association or corporation, including any utility, and any federal, state, local government, or special district or an agency thereof.

Places of Public Assembly: Meeting halls, schools, hospitals, and other associated medical facilities, mosques, temples, or other places of religious worship.

Planning Areas: Nine (9) geographic subunits of the County.

Policy: Specific statement that guides decision making in order to achieve a goal or objective.

Practical: See Feasible.

Preservation: Restoration or protection from deterioration of features having environmental, cultural, historic, or other resource value.

Primary or Predominant Use: The prevailing use of the land.

Prime Agricultural Land: Those lands defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.

Productive Agricultural Land: Land currently used or capable of being used for the production of food, fiber or plant materials.

Public Services: Infrastructure, including roads, sanitary sewers, storm drains and water mains and social services, including police, fire, health, schools, transit, recreation and libraries.

Public Works: (a) All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, except for energy facilities; (b) All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities; (c) All publicly financed recreational facilities, all projects of the State Coastal Conservancy, and any development by a special district; and (d) All community college facilities.

Public Utility Facility: A facility for the provision of water, light, heat, communications, power, or for sewage collection, treatment, or disposal.

Public Water Supplier: One of the following types of entities:

(1) Sonoma County Water Agency

(2) Incorporated Cities

(3) The following suppliers for Urban Service Areas:

Bodega Bay Public Utility District

The Sea Ranch Water System

(4) The following County-operated community systems:

Sonoma County Service Area 41 - Jenner

Sonoma County Service Area 41 - Salmon Creek

Timber Cove County Water District

(5) The following other community system serving more than 500 year-round residents:

Russian River County Water System

(6) Any new public water suppliers which meet any of the following criteria:

Incorporated cities

Suppliers for urban service areas

County-operated community systems

Community systems serving more than 500 year-round residents

Public Water System: A connected system of pipelines, pumps, valves, treatment plants, storage tanks, reservoirs and related facilities providing water to multiple users.

Recreation Use – Active: Swimming pools, tennis courts, golf courses, driving ranges, community centers, and similar facilities.

Recreation Use – Passive: Outdoor amenities for hiking, viewing, surfing, fishing, swimming, picnicking, non-motorized boating, trail riding, and similar activities.

Recycled Water: Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.

Redevelopment Project: An activity undertaken by a Redevelopment Agency set up under State law to revitalize blighted areas as defined by the Health and Safety Code.

Responsible Agency: As defined by the State CEQA guidelines, the term Responsible Agency includes all public agencies other than the lead agency which have discretionary approval power over a project.

Resource Agency: A federal or state agency having jurisdiction by law over natural resources affected by an activity or use. Resource agencies include the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, NOAA Fisheries, California Department of Fish and Wildlife, North Coast and San Francisco Bay Regional Water Quality Control Boards, State Water Resources Control Board, and other similar federal and state agencies.

Ridgeline: A line connecting the highest points along a ridge.

Right of Way: The strip of land required to build certain transportation and public use facilities, such as roadways, railways, and public utility lines.

Riparian: Associated with or dependent upon a river, stream or other water body.

Riparian Corridor: In general, the area occupied by rivers or streams and related plant and animal communities. A line or belt of vegetation following the course of a river or stream on the immediate banks and appearing visually and structurally separate from the surrounding landscape. Boundaries are delineated by the outer edge of riparian vegetation. Riparian vegetation consists of that vegetation in or adjacent to permanent or intermittent freshwater streams and other freshwater bodies where at least 50 percent of the cover is made up of species such as alders, willows, cottonwoods, box elders, ferns, and blackberries. As used in the Open Space and Resource Conservation Element, the areas occupied by rivers or streams designated on **Figures C-OSRC-2a** through **C-OSRC-2k** and related plant and animal communities.

Riparian Functions: The beneficial uses of areas in and along streams, including: providing food, water, and breeding, egg deposition and nesting areas for fish, amphibians, reptiles, birds, insects, and mammals; providing protective cover, shade and woody debris to stream channels as habitat for coho salmon, steelhead, freshwater shrimp, and other protected and common aquatic-dependent species; providing movement opportunities, protective cover, and breeding, roosting, and resting habitat for terrestrial wildlife; filtering sediment and pollutants in runoff into streams; providing erosion protection for stream banks; and facilitating groundwater recharge.

Rocky Intertidal: Coastal rocky shore between the highest high tide line and the low tide line.

Rural: A comprehensive term contrasting to urban. Those areas not intended for urban development.

Scenic Corridor: As designated on **Figures C-OSRC-1a** through **C-OSRC-1k** of the Open Space and Resource Conservation Element, a strip of land of high visual quality along a certain roadway.

Scenic Highway: Those roadways in Sonoma County that have been so designated by the State of California.

Scenic Landscape Unit: A landscape of special scenic importance in Sonoma County which provides important visual relief from urban densities.

Sea: The Pacific Ocean and all harbors, bays, channels, estuaries, salt marshes, sloughs, and other areas subject to tidal action through any connection with the Pacific Ocean, excluding non-estuarine rivers, streams, tributaries, creeks, and flood control and drainage channels. "Sea" does not include the area of jurisdiction of the San Francisco Bay Conservation and Development Commission, established pursuant to Title 7.2 (commencing with Section 66600) of the Government Code, including any

river, stream, tributary, creek, or flood control or drainage channel flowing directly or indirectly into such area.

Second Dwelling Unit: See Accessory Dwelling Unit

Secondary Use: As used in the General Plan land use categories, a use permitted within a special land use category based on its compatibility with the primary or predominant use therein.

Seiche: A seiche has to occur in an enclosed body of water such as a lake, bay or gulf. A seiche is a standing wave that oscillates in a lake as a result of seismic or atmospheric disturbances creating huge fluctuations of water levels.

Sensitive Coastal Resource Areas: Those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including the following:

(a) Special marine and land habitat areas, wetlands, lagoons, and estuaries as mapped and designated in Part 4 of the coastal plan.

(b) Areas possessing significant recreational value.

(c) Highly scenic areas.

(d) Archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer.

(e) Special communities or neighborhoods which are significant visitor destination areas.

(f) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.

(g) Areas where divisions of land could substantially impair or restrict coastal access.

Setbacks: The distance a building or use must be withdrawn from a road right-of-way, watercourse, parcel boundary or other designated feature.

Side Friction: The movement of vehicles outside of the main flow of traffic which may interrupt the efficient flow of traffic such as parking and entering or leaving driveways.

Silviculture: A branch of forestry dealing with the development and care of forests.

Single-Event Noise Exposure Level (SENEL): SENEL is a measure of the noise generated by a single aircraft overflight. It includes the loudness of the event during the time interval that the event is above the threshold level.

Single Room Occupancy Units: A cluster of residential units, each unit being substantially smaller in size than a typical apartment unit, within a residential hotel, motel, or similar facility providing sleeping or living facilities in which sanitary and

kitchen facilities may be either shared within the project or provided in each unit. Single Room Occupancy Units are for the purpose of providing affordable housing, and not for the purpose of serving recreational or travel needs.

Smart Growth, Planned Growth: Development that is environmentally sensitive, economically viable, community-oriented, and sustainable. These goals are reached through planning that incorporates the following principles:

(1) Encourage infill development of urbanized communities

(2) Create range of housing opportunities and choices

(3) Encourage compact building design

(4) Protect agriculture and open space

(5) Create walkable neighborhoods

(6) Enable choice in transportation modes that are integrated and consistent with land use objectives

(7) Create fair and equitable rules for development

Sonoma County Stream Identification: The DLG files (part of the NHD dataset) are the primary source of stream mapping in Sonoma County. Review of the digital mapping for Sonoma County indicates that the DLG does not map all of the streams within each watershed, particularly smaller tributary streams and those in the uppermost reaches of each watershed. NWI maps are based on the location of wetland habitat and contain comprehensive information on the location and type (classification) of deepwater habitats (streams, lakes, and estuaries). NWI data is more comprehensive than the USGS DLG Dataset for identifying the likely location of water-oriented habitat resources within the drainage network. As such, this LCP makes use of NWI in addition to DLG data to identify streams within the Coastal Zone.

Sound: Variations in air pressure that the ear can detect.

Special District: Any public agency, other than a local government as defined in this chapter, formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries. "Special District" includes, but is not limited to, a county service area, a maintenance district or area, an improvement district or improvement zone, or any other zone or area, formed for the purpose of designating an area within which a property tax rate will be levied to pay for service or improvement benefiting that area.

Special Treatment Area: An identifiable and geographically bounded forested area within the coastal zone that constitute a significant habitat area, area of special scenic significance, and any land where logging activities could adversely affect public recreation area or the biological productivity of any wetland, estuary, or stream especially valuable because of its role in a coastal ecosystem.

Specimen Tree: Means a tree which has departed in some respect from the standard characteristic of the species and has developed a character of shape, size, or branch structure that gives it special interest.

Stream: For purposes of this LCP, stream shall be defined as any blue line stream as mapped by 1) USGS on the 7.5-minute quadrangle series, 2) the USGS National Hydrography Dataset (NHD), 3) the USFWS National Wetlands Inventory (NWI), or 4) any local government-approved stream resource maps. This stream definition shall be used in all LCP contexts when referring to streams. Stream data from the three statewide/national sources in addition to any high resolution local stream mapping sources shall be used to determine the location and identification of streams.

Subdivision: The division of a lot, tract, or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale or of building development.

Sustainability: That which meets our current needs without compromising the ability of future generations to meet their needs.

Sustainable yield: The amount of water that can be used over the long term without exceeding the replenishment rates over time or causing long term declines in available surface or groundwater resources.

Telecommunication Facility: Facility that sends and/or receives electromagnetic signals, including antennas and towers to support receiving and/or transmitting devices along with accessory structures, and the land on which they are all situated.

Traffic Analysis Zones: A statistical geographical unit for information related to traffic generation and transportation modeling.

Traffic Calming: A combination of alterations and improvements to the road network intended to reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. The purpose of traffic calming is to reduce the speed and volume of traffic to acceptable levels for the functional class of a street and the nature of existing uses along the street in order to improve traffic safety and preserve community character.

Transient Use or Transient Occupancy: Means occupancy of a lodging facility or residence by any person other than the primary owner by concession, permit, right of access, license, gift or other agreement for a period of thirty (30) consecutive calendar days or less, counting portions of calendar days as full days.

Transit: The conveyance of persons from one place to another on a public transportation system.

Transit Center: An area that is designed for several bus and/or rail routes. Transit centers will usually have multiple passenger facilities, such as shelters and benches, and

also will usually have some form of information available for the passengers, this may include a staffed information center where passengers can buy passes and get printed schedules.

Transmission line: A conductor for transmitting electrical or optical signals or electric power such as a cable or power line.

Transportation: The conveyance of goods and people from one place to another.

Transportation Demand Management (Federal Highway Administration) or Traffic Demand Management (Caftans): Programs and strategies that reduce congestion through reduction of demand, rather than increasing capacity or supply. The goal of TDM is to reduce the number of vehicles using highway facilities while providing a wide variety of mobility options for those who wish to travel. Examples of TDM are:

(1) High occupancy vehicle lane

(2) Alternative work hours

(3) Ride sharing programs

(4) Telecommuting

(5) Land use policies that reduce distance between jobs and housing.

Unincorporated Community: Areas within the County's jurisdiction that have some or all urban services that support urban level densities.

Urban: Contrasting with rural, pertaining to uses of land typically occurring within cities, such as high density residential, commercial, and industrial uses.

Urban Development: Development occurring within urban land use categories (urban residential, commercial, industrial and public/quasi-public categories within Urban Service Areas).

Urban Growth Boundary: A voter designated limit to the urban development of a city.

Urban Service Area: The geographical area within the Urban Service Boundary that is designated for urban development on **Figures C-LU-1a** and **C-LU-1b** of the Land Use Element.

Urban Services: The full range of public services and infrastructures including sewer, water, police and fire protection, roads and transit etc.

Urban Service Boundary: A designated limit to the urban development of the cities and unincorporated communities of the County.

Use Permit: Required for the use of land or land development when required by the Zoning Ordinance, typically for projects that have potential for negative impacts on the surrounding land uses.

Vacation Rental: A property with a single-family home intended for permanent occupancy that is occupied for transient use by any person other than the primary owner; or is otherwise occupied or used on a transient basis. Vacation rental does not include occasional home exchanges that are not otherwise subject to Transient Occupancy Tax, hosted rentals, or a bed and breakfast inn permitted and operated in accordance with the Sonoma County Zoning Code Regulations.

Vegetation Removal: The cutting, breaking, burning or uprooting of vegetation or the application of herbicide to vegetation, or the covering over of vegetation with earth or the compacting of the soil under, around or over said vegetation. For the purposes of this definition, vegetation means all natural, non-cultivated growth of plant life including the root system, the stem, trunk, crown or branches or leaves or blades.

Vehicle Miles of Travel (VMT): A unit to measure vehicle travel made by a private vehicle, such as an automobile, van, pickup truck, or motorcycle. Each mile traveled is counted as one vehicle mile regardless of the number of persons in the vehicle.

Viable: Capable of success or continued effectiveness. For land uses, having the apparent physical characteristics necessary to accomplish the use.

Viewshed: The area visible from a defined observation point.

Wastewater: Any water that has been affected by human use

Watershed: The area of land that includes a particular river or lake and all the rivers, streams, and creeks that flow into it.

Water User: A person or entity whose diversion, appropriation, extraction, acquisition, storage or usage of water meets all applicable legal requirements.

Wetland: Lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

An area where the water table is at, near, or above the land surface long enough to bring about 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, but not the Bodega Harbor tide flats. The upland limit 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: pickleweed, cordgrass, Jaumea, salt grass, rushes, bulrushes, sedges, cattails, tule, marsh rosemary, marsh grindelia.

Wildlife Corridor: see Fish or Wildlife Corridor

Williamson Act: The California Land Conservation Act of 1965 (as it may be amended from time to time) that allows Counties to establish agricultural preserves through agreements with property owners to maintain agricultural uses in exchange for property tax benefits.

Zoning District: A designated section of the County for which prescribed land use requirements and building and development standards are uniform.

Zoning Ordinance: An ordinance authorized by Section 65850 of the Government Code or, in the case of a charter city, a similar ordinance enacted pursuant to the authority of its charter.

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