



Environmental Analysis

4 ENVIRONMENTAL ANALYSIS



Penny Island, Source: EDAW 2003

4.1 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

4.1.1 PURPOSE OF THE EIR

This General Plan for Sonoma Coast State Beach (Sonoma Coast SB), with all its sections, constitutes an environmental impact report (EIR), as required by Public Resources Code (PRC) §§5002.2 and 21000 et seq. The General Plan is subject to approval, and the EIR is subject to certification by the California Park and Recreation Commission (Commission). The Commission has sole authority for the plan's approval and adoption. Following certification of the EIR and approval of the General Plan by the Commission, the Department will prepare management plans and area development plans as staff and funding become available. Future projects, within Sonoma Coast SB, may be subject to permitting requirements and approval by other agencies, such as the Caltrans, Department of Fish and Game, and the California Coastal Commission.

4.1.2 FOCUS OF THE EIR

The Notice of Preparation for this General Plan was circulated to the appropriate federal, state, and local planning agencies. Based on comments received during the planning process, this Preliminary General Plan and Draft EIR was prepared to address environmental impacts that may result from the implementation of the management goals and guidelines. Emphasis is given to significant environmental impacts that may result from all future development and uses within Sonoma Coast SB that are consistent with these goals and guidelines.

4.1.3 SUBSEQUENT ENVIRONMENTAL REVIEW PROCESS

This Environmental Analysis Section and other sections of this document constitute the first tier Environmental Impact Report (EIR) as defined by §15166 of the CEQA Guidelines. It should be recognized that the level of detail addressed by this EIR is comparable in detail provided in the land use proposals of the General Plan. As subsequent management plans and site specific projects are proposed, they will be subject to further environmental review.

The proposed Sonoma Coast SB General Plan includes land use designations, the incorporation of goals and guidelines for protection of natural and cultural resources, and

the development of appropriate recreational, interpretive, and operational facilities. The General Plan proposes to:

- ▶ Reclassify the park unit from a State Beach to a State Park to appropriately reflect the present size, characteristics, and resource values more closely associated with park units classified as State Parks. This will provide a more appropriate and higher level of management and protection for an expansive diversity of natural and cultural resources as well as recreation opportunities.
- ▶ Establish management goals and guidelines and management zones for resource management, facility operations, and accessible interpretive and recreational programs for the public within Sonoma Coast SB.

In addition, the General Plan proposes that several focused management plans, including a roadway management plan and trails management plan be prepared subsequent to adoption of the General Plan.

Development, maintenance facility use and recreational activities allowed by the General Plan have the potential to cause short-term and long-term impacts to the environment. These impacts could include soil disturbance, erosion, lowered water quality and quantity, degradation of cultural resources, degradation of aesthetic resources, and degradation of sensitive plant and animal populations or their habitats. As a program level (first tier) EIR (see CEQA Guidelines §15166, §15168), the General Plan identifies broad, park-wide environmental impacts and mitigation measures. Future management plans, activities, and projects will be subject to additional environmental review in order to identify specific impacts and appropriate mitigation and monitoring plans. All potentially new adverse impacts will be avoided, minimized, or mitigated to a level below significance.

Throughout the General Plan process, plan possibilities were considered. The preferred plan allows for existing coastal recreation to continue while providing protection for sensitive park resources. Expansion of inland watershed areas with the Upper Willow Creek addition also commensurately expands inland recreation opportunities, the size and diversity of park resources, and the character of the park itself. The plan allows for appropriate visitor access and recreation opportunities to the expanded inland area while providing protection of sensitive park resources and resource rehabilitation of park areas.

4.1.4 CONTENTS OF THE EIR

The enclosed program EIR includes the following sections:

Introduction to the Environmental Analysis: This section includes a brief overview of the environmental review process, legal requirements, and approach to the environmental analysis.

EIR Summary: The EIR summary represents a summary of environmental impacts associated with the proposed General Plan, an overview of the environmental effects of alternatives

considered to the preferred General Plan, and a description of any areas of controversy and/or issues that need to be resolved.

Project Description: This section provides an overview of the proposed General Plan, which is the focus of the program EIR.

Environmental Setting: This section notes the fact that the existing (baseline) conditions for environmental issues or resources that may be potentially affected by implementation of the General Plan are addressed in Chapter 2, Existing Conditions, which represents the environmental setting for this EIR.

Environmental Effects Eliminated from Further Analysis: This section describes those environmental topics that did not warrant detailed environmental analysis and the supporting rationale.

Environmental Impacts: This section analyzes potential environmental impacts associated with implementation of the proposed General Plan.

Other CEQA Considerations: This section contains information on other CEQA-mandated topics, including significant and unavoidable impacts, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

Alternatives to the Proposed Project: The alternatives analysis describes the various alternatives to the proposed General Plan (including the No Project Alternative) that are considered in this EIR and the associated environmental effects of these alternatives relative to the proposed project.

4.2 SUMMARY

4.2.1 SUMMARY OF IMPACTS AND MITIGATION

Implementation of the General Plan is not expected to result in significant impacts on the environment. Implementation of the Goals and Guidelines contained in Section 3 along with compliance with federal and state laws and regulations, as stated in those guidelines, avoids potential significant effects or maintains them at a less-than-significant level. Additional mitigation measures are, therefore, not necessary.

4.2.2 SUMMARY OF ALTERNATIVES CONSIDERED

Four alternatives were considered in this EIR, including the Proposed Project Alternative (the proposed General Plan), the Fewer Potential Development Areas Alternative, the No Potential Development Area Alternative, and the No Project Alternative. The Proposed Project Alternative is the environmentally superior alternative among the alternatives considered. Descriptions of the alternatives are provided in Section 4.8.

4.2.3 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Areas of controversy associated with implementation of the General Plan may include compatibility of recreational uses with natural and cultural resources in Sonoma Coast SB as well as with surrounding land uses. Final selection of a management approach for preserving unique cultural resources located in popular recreational areas would be made in management plans, which would be subject to further environmental analysis. Protection of species of concern and restoration and preservation of sensitive habitats in popular recreational areas and in potential development areas constitute other areas of potential controversy. The public has also expressed concern regarding the appropriateness of certain recreational activities (e.g., biking and horseback riding on trails, hang gliding, mountain biking, night-time beach gatherings) with other recreational activities and with geologic and hydrologic conditions (e.g., trail erosion, creek sedimentation). While recreational activities have an effect on all of these resources, consideration of existing human uses is crucial in achieving success in any management approach.

Environmental compatibility of facility expansion, improvement, and development is another area of controversy. Some of the existing facilities are inadequate to serve the needs of Sonoma Coast SB, particularly as the number of visitors increases with regional and state-wide population growth. Specific concerns regarding new and existing facilities include effects on adjacent sensitive resources (e.g., wetlands), hazards associated with the sites (e.g., traffic safety, flooding, erosion), effects on viewshed, and adequacy and compatibility of domestic water, wastewater, and other utilities systems with site soils and other conditions.

4.3 PROJECT DESCRIPTION

Chapter 3 of this General Plan represents the project description and establishes the overall long-range purpose and vision for Sonoma Coast SB. Management goals and supporting guidelines in Chapter 3 are designed to address the currently identified critical planning issues and to mitigate the adverse environmental effects of uses that would be permitted in Sonoma Coast SB. In accordance with the goals and guidelines, site selection criteria would be used to avoid adverse environmental impacts resulting from future developments and improvements, to the extent feasible within the boundaries of Sonoma Coast SB.

4.4 ENVIRONMENTAL SETTING

Existing conditions that characterize Sonoma Coast SB, including descriptions of the important resource values within Sonoma Coast SB and the regional planning context, are described in Chapter 2 of the Preliminary General Plan.

4.5 ENVIRONMENTAL EFFECTS ELIMINATED FROM FURTHER ANALYSIS

The following topics were eliminated for future analysis in the EIR because there is no potential for significant environmental effects resulting from implementation of the General Plan. A brief reason for their elimination is provided for each respective topic.

4.5.1 ENERGY AND MINERAL RESOURCES

Sonoma Coast SB does not contain important mineral or energy resources and has not been designated as such by the Department of Conservation. Off-shore oil drilling near Bodega Bay and outside Sonoma Coast SB has been proposed in the past. The Department has no jurisdiction over off-shore oil drilling, and this plan does not include goals and guidelines on off-shore oil drilling. Therefore, no significant effects to energy or mineral resources would occur as a result of the implementation of the General Plan and no further environmental analyses of effects on energy and mineral resources are necessary.

4.5.2 POPULATION AND HOUSING

Sonoma Coast SB is a destination for residents throughout California, although most visitors come from the metropolitan areas of northern California. Visitation is expected to increase as the State's population grows by 1.4% annually through 2020. The staff at Sonoma Coast SB and the people involved in the tourist-serving industries primarily live in Sonoma County, and this population is projected to grow by an average of 2% annually through 2020. While implementation of the General Plan would not directly induce regional population growth, additional recreational facilities could attract additional visitation and potentially add to the employment base of the immediate area. Given the latest unemployment rate (September 2003 data) in Sonoma County of 4.3% (EDD 2003) and the latest housing vacancy rate (January 2003 data) in Sonoma County of 5.8% (DOF 2003), the increase in demand for labor and housing would be met by the existing local population and that no additional housing would be needed to serve growth associated with additional visitation. The General Plan does not include proposals for infrastructure that would induce additional growth in the immediate vicinity. For these reasons, no significant population, employment, and housing effects would occur as a result of implementation of the General Plan and no further consideration is necessary for this environmental topic.

4.6 ENVIRONMENTAL IMPACTS

A CEQA Checklist completed for the General Plan completed at the beginning of the planning process is included in Appendix C. The following sections analyze potential impacts by resource topic.

4.6.1 AESTHETICS

INTRODUCTION

This section analyzes impacts related to aesthetic resources that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The analysis of aesthetic impacts uses criteria from the State CEQA Guidelines Appendix G (environmental checklist). According to these criteria, implementation of the General Plan would have a significant aesthetic impact if it would:

- ▶ Have a substantial adverse effect on a scenic vista.
- ▶ Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- ▶ Substantially degrade the existing visual character or quality of the site and its surroundings.
- ▶ Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

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Degradation of Viewsheds. Development within the coastal viewshed and the inland viewsheds could be visible from points within Sonoma Coast SB and could degrade the aesthetic value of the scenic views, as well as of night-time views. Implementation of Goal Coast-3 and the associated guidelines, as well as Goal Inland-3 and the associated guidelines, would eliminate or minimize degradation of the viewshed and night-time views, and this impact would be **less than significant**.

Implementation of the General Plan may result in the development of recreational and operational facilities and improvements that would be visible to visitors at designated view points and from State Route 1 and State Route 116, which is a State-designated Scenic Highway. If the new facilities are not in context with the existing scenery or if they would introduce light sources that degrade night-time views, significant impacts could result.

With implementation of Goal COAST-3 and Guidelines COAST-3A, COAST-3B, and COAST-3C, the coastal viewshed from Sonoma Coast SB would be defined based on the designated viewpoints and would be preserved. Goal INLAND-3 aims for the preservation of the inland viewshed, and Guideline INLAND-3B aims for the restoration of the natural vegetation of the Willow Creek watershed in order to enhance the aesthetic quality. Guideline COAST-3E would require avoidance of development that would degrade the scenic quality of the viewshed, and Guidelines COAST-3D and INLAND-3A would require the use of site-appropriate visual screening to minimize the aesthetic degradation of viewsheds. New facilities may require night-time lighting that may degrade night-time views within Sonoma Coast SB. Guidelines COAST-3G and Guideline INLAND-3D would require shielding that would eliminate or minimize degradation of night-time views. Developments outside Sonoma Coast SB may also be visible to visitors at designated view points and on the state routes, and the developments may introduce new light sources that would degrade night-time views. With Guideline COAST-3F and INLAND-3C, the Department would submit input to local, State, and federal agencies during the environmental review period of development projects in an effort to encourage mitigation for any potential visual impacts. While the decision to implement visual mitigation measures outside Sonoma Coast SB is not within the jurisdiction of the Department, it is expected that feasible mitigation measures

would be implemented in compliance with State laws. Given the management goals and policies for coastal and inland viewsheds, this impact would be less than significant.

4.6.2 AGRICULTURAL AND TIMBER RESOURCES

INTRODUCTION

This section analyzes impacts related to agricultural and timber resources that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The agricultural and timber resources analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact on agricultural resources if it would:

- ▶ Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- ▶ Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- ▶ Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Important Farmland, to non-agricultural use.

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Conflict with Existing Agricultural Uses. Implementation of the Preliminary General Plan would not result in the conversion of land designated as Important Farmland or located within the Timber Preserve Zone, or the cancellation of Williamson Act contracts. The impact related to agriculture would be **less than significant**.

Most of Sonoma Coast SB was historically used for grazing and other agricultural purposes. Portions of Sonoma Coast SB are classified as Farmland of Local Importance but are not considered Important Farmland. Furthermore, these areas are not currently used for agricultural purposes. The Willow Creek portion of Sonoma Coast SB was historically used for timber production and agricultural purposes, but all agricultural and timber harvesting uses have ceased since the incorporation of the property into Sonoma Coast SB.

Several properties near Sonoma Coast SB are used for grazing purposes. As stated policy in the Department of Parks and Recreation Operations Manual, livestock grazing is an inappropriate use of parkland resources except under certain circumstances where a core park purpose is served. These core purposes of grazing include:

- a. When directly contributing to historic interpretation approved in a unit's General Plan;

- b. When necessary for a specific natural resource restoration purpose, which normally does not include fuels reduction or an alternative to extirpated ungulate grazing; or
- c. When it is a necessary component to an acquisition agreement, including scaled-down grazing to improve natural resources.

Compliance with this policy would require one or more of these purposes to be met before grazing could be initiated within Sonoma Coast SB.

Two Williamson Act preserves are located adjacent to Sonoma Coast SB; one is located next to the Willow Creek area and the other is located near Schoolhouse Beach. The properties to the east of the Willow Creek area are used for timber harvesting purposes, but none of the adjacent properties are within Timber Preserve Zones. Implementation of the General Plan would not affect the adjacent agricultural uses, because no incompatible uses would be permitted by the General Plan.

Given that there are no Important Farmland, Williamson Act preserves, and Timber Preserve Zones within Sonoma Coast SB, no significant impacts related to the conversion of Important Farmland or areas zoned for agricultural uses would occur. As such, the impact related to agriculture is less than significant.

4.6.3 AIR QUALITY

INTRODUCTION

This section analyzes impacts related to air quality that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The air quality analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant air quality impact if it would:

- ▶ Conflict with or obstruct implementation of the applicable air quality plan.
- ▶ Violate any air quality standards or contribute substantially to an existing or projected air quality violation.
- ▶ Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- ▶ Expose sensitive receptors to substantial pollutant concentrations.
- ▶ Create objectionable odors affecting a substantial number of people.

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Air Pollutant Emissions. Potential construction activity and motor vehicle use by State Beach visitors would result in increases in the emission of air pollutants. Compliance with General Plan goals and guidelines would maintain emissions within acceptable levels. This impact would be **less than significant**.

The primary sources of air pollutants include construction activities, onsite operational activities, and offsite traffic. New recreational development at Sonoma Coast SB may generate additional vehicular traffic to and from Sonoma Coast SB. Traffic volumes on highways and local roadways in the area are highest during peak visitation periods. During these periods, excessive delays at individual points on the roadways (e.g., signalized intersections, driveways into parking lots) have the potential to cause higher localized concentrations of CO. Typically, violations of CO emission standards are experienced at signalized intersections with extreme traffic congestion. The Transportation Project-Level Carbon Monoxide Protocol (Garza et al. 1997) states that signalized intersections at level of service (LOS) E or F represent a potential for a CO violation. There are no signalized intersections within and in the immediate vicinity of Sonoma Coast SB. Instead, motorists experience the highest traffic delays where turning movements occur frequently (e.g., pull-outs, commercial driveways, local roadways). Guidelines ROAD-1A and ROAD-1C would require the preparation of a roadway management plan and coordination with Caltrans and Sonoma County to ensure the roadways in and around Sonoma Coast SB would be maintained and improved, to the extent needed and feasible, to avoid excessive traffic congestion. Potential improvements that would be considered include adding turning lanes to reduce congestion related to turning movements. With these improvements, excessive congestions would be avoided, and localized CO concentrations would not exceed air quality standards.

In addition to vehicular traffic, construction activities and onsite operational activities may also generate air pollutants. Development and improvement projects within Sonoma Coast SB may be required to obtain “authorization to construct or modify” and “permit to operate” from APCD. Guideline FAC-1L would require consultation with the APCD to determine if permits would be required. As a part of this permitting process, developments are required to comply with the APCD’s rules and regulations on fugitive dust emissions, architectural coating emissions, air toxics, and other air pollutants generated by construction and operational activities. Implementation of air pollutant control measures required by these rules and regulations would minimize the emission of criteria air pollutants from construction activities and operational activities of onsite stationary sources.

Typical recreational uses occurring in the State Park system do not generate odors that would be considered objectionable to most people. Use of materials that can release toxic air contaminants (e.g., regulated herbicides) would be in accordance with State and federal rules and regulations. Given the above, impacts related to air pollutants would be less than significant.

4.6.4 BIOLOGICAL RESOURCES

INTRODUCTION

This section analyzes impacts related to biological resources that would result from implementation of the Preliminary General Plan. A variety of documents and additional information were used to assess impacts on vegetation and wildlife from implementation of the Preliminary General Plan Information. These include biological studies previously conducted in the vicinity of Sonoma Coast SB (see list of documents in Section 2, Existing Conditions), field surveys conducted during preparation of the Preliminary General Plan, aerial photographs, and results of natural resource database searches.

THRESHOLDS

The biological resources analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact on biological resources if it would:

- ▶ Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- ▶ Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- ▶ Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- ▶ Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- ▶ Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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Adverse Effects on Vegetation. Compliance with General Plan goals and guidelines would ensure that future development and improvements within Sonoma Coast SB would not result in significant adverse impacts on vegetation, such as significant disturbance or losses of sensitive plant communities or special-status plants. This impact would be **less than significant**.

Forty-nine special-status plant species, including one lichen, have the potential to occur in plant communities present at Sonoma Coast SB. A total of 19 special-status plant species are known to occur at Sonoma Coast SB. These include: pink sand-verbena (*Abronia umbellata* ssp. *breviflora*), Blasdale's bent grass (*Agrostis blasdalei*), Franciscan onion (*Allium peninsulare* var. *franciscanum*), Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*), Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*), California sedge (*Carex californica*), deceiving sedge (*C. saliniformis*), Sonoma spineflower (*Chorizanthe valida*), Baker's larkspur (*Delphinium bakeri*), yellow larkspur (*Delphinium luteum*), San Francisco wallflower (*Erysimum franciscanum*), short-leaved evax (*Hesperis matronalis* var. *brevifolia*), Perennial goldfields (*Lasthenia macrantha* ssp. *macrantha*), Tidestrom's lupine (*Lupinus tidestromii*), Marin knotweed (*Polygonum marinense*), Marin checkerbloom (*Sidalcea hickmanii* ssp. *viridis*), purple-stemmed checkerbloom (*S. malvaeflora* ssp. *purpurea*), second jewel-flower (*Streptanthus glandulosus* var. *hoffmanii*), and Showy Indian clover (*Trifolium amoenum*).

Undocumented occurrences of these and other special-status plant species may be present in Sonoma Coast SB, and focused surveys would be necessary to accurately determine the full distribution and extent of special-status plant species in Sonoma Coast SB prior to development. Direct impacts, such as direct removal or damage of special-status plant occurrences, have the potential to occur where facility development or visitor use would be located. Development or expansion of facilities and other ground disturbance activities, including invasive weed abatement activities, would be conducted in accordance with Goals NAT-1 and FAC-1 and the associated guidelines. Specifically, these goals and guidelines would result in management actions that would inventory and monitor (Guidelines NAT-1A), NAT-1B, NAT-1C, NAT-1D, and avoid or minimize disturbances or losses of sensitive plant communities or special-status plants (NAT-1E, REC-1F, REC-1G, and FAC-1A). As such, direct and indirect impacts to special-status plants would be maintained at a less-than-significant level. In addition, consistent with Guideline NAT-1B, NAT-1C, COAST-2B, and INLAND-2B, restoration and eradication of non-native invasive species could potentially increase the quality and extent of suitable habitat for special-status plant species.

As discussed in the Chapter 2, the dynamic coastal ecosystem of Sonoma Coast SB contains a number of common and sensitive vegetation communities that are valuable habitat for plants and wildlife. Sensitive plant communities in Sonoma Coast SB include riparian areas, coastal and valley freshwater marsh, coastal brackish marsh, and coastal terrace prairie. Potential improvements, including potential development of building facilities and trails would avoid or minimize impacts to riparian areas, wetlands, and other sensitive plant communities by implementation of the goals and guidelines contained in the General Plan, including Goals NAT-1 and FAC-1 and Guidelines NAT-1A, NAT-1B, NAT-1E, REC-1F, and FAC-1B.

Implementation of Goal NAT-1 and Guidelines NAT-1C and NAT-1D would ensure that potential impacts from invasive weeds on native habitats and species are less than significant. Therefore, the impact on sensitive natural communities resulting from implementation of the General Plan would be considered less than significant.

Currently, no Habitat Conservation Plans or Natural Communities Conservation Plans have been approved in the region. The General Plan is consistent with the Local Coastal Plan, as discussed below under Section 4.6.9, Land Use and Planning. It also calls for the Department's active participation in regional conservation planning efforts (Guideline NAT-1G). Therefore, implementation of the Preliminary General Plan would not conflict with plans intended to protect natural resources in the region, and there would be no impact.

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Adverse Effects on Fish and Wildlife. Implementation of the General Plan goals and guidelines would result in avoidance or minimization of disturbances or losses of special-status fish and wildlife species and their habitat and would also ensure that movement of native fish and wildlife species would not be restricted. This impact is **less than significant**.

Sonoma Coast SB supports a variety of terrestrial and aquatic fish and wildlife species, primarily due to its position along the northern California coastline. Most of the animals present are locally and regionally common, but as many as 22 special-status fish and wildlife species have the potential to occur in Sonoma Coast SB. Construction and maintenance of existing and proposed State Beach facilities could result in loss and/or disturbance of habitat and individuals of some of these special-status species. Potential direct impacts could result from development, re-location and/or expansion of facilities, such as trails, parking lots, campgrounds, day-use areas, and visitor center. Potential secondary impacts on fish and wildlife resulting from increased visitor use could include disturbance from visitor activities (e.g., beachcombing, hiking, and camping).

Impacts to common wildlife species found in Sonoma Coast SB would be less than significant because maintenance or enhancement of existing facilities and construction of additional facilities would require a relatively small amount of ground disturbance and would not be sited in important wildlife habitat areas, in accordance with Goal NAT-2 and Guideline NAT-2P. None of the facilities would be expected to involve removal of large tracts of wildlife habitat and none would substantially reduce opportunities for wildlife movement or fish passage, in accordance with Guidelines NAT-2D, NAT-2G, and FAC-1F. In addition, the opportunity to enhance habitat linkages and buffers around existing State Beach resources would be sought, in compliance with Guidelines NAT-2E, NAT-2F, and NAT-2H.

Impacts to terrestrial special-status wildlife species would be avoided or minimized by compliance with State and federal law (Goal NAT-2) and by locating facilities away from areas known to support special-status species (Guideline FAC-1H), establishing seasonal closures or restricting beach use if necessary to protect marine mammal haul-outs and nesting snowy plovers, or other special-status species, from disturbance by recreational beach users (Guideline NAT-2A), and establishing protection measures for sensitive species that may be in structures prior to initiation of major maintenance, construction or demolition (Guideline FAC-1G). Protection and recovery of listed species, such as western snowy plover, would be ensured by implementing system-wide management directives.

Impacts to aquatic special-status species, including anadromous fish, amphibians and reptiles, would be avoided or minimized by compliance with State and federal law (Goal NAT-2) implementing guidelines to protect aquatic resources and water quality. Guideline NAT-2G establishes that any instream work would be conducted consistent with requirements of DFG, NMFS, and the CWA, and that BMPs to protect water quality would be implemented.

Other guidelines would require monitoring of common and special-status species within Sonoma Coast SB (Guidelines NAT-2C and NAT-2) and the protection of marine mammal haul-outs and special status species from recreational users (Guidelines NAT-2A).

4.6.5 CULTURAL RESOURCES

INTRODUCTION

This section analyzes impacts related to cultural resources that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The cultural resources analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact on cultural resources if it would:

- ▶ Cause a substantial adverse change in the significance of historical resources.
- ▶ Cause a substantial adverse change in the significance of an archaeological resource.
- ▶ Disturb any human remains, including those interred outside of formal cemeteries.

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Adverse Effects on Prehistoric, and Historic-era Resources. Compliance with Goal CUL-1 and Guidelines CUL-1A through CUL-1G would ensure that future development and improvements within Sonoma Coast SB would not cause substantial adverse effects on cultural resources present within Sonoma Coast SB. This impact would be considered **less than significant**.

The Preliminary General Plan includes goals and guidelines that would ensure protection, avoidance or minimization of disturbances to prehistoric and historic-era resources in Sonoma Coast SB. There are numerous documented prehistoric resources within Sonoma Coast SB, particularly along the coastal strand and inland waterways. These sites range from small-scale refuse scatters to Site CA-SON-348/H, a deeply stratified National Register-listed prehistoric site which is one of the oldest, most important prehistoric sites on the West Coast. There are also numerous examples of important historic-era archeological resources within Sonoma Coast SB, including possibly Sir Francis Drake's landing place, remnants of early Russian ranches, later farm and ranch complexes including the National Register-eligible Carrington Ranch, and an early lumber mill industry. These historic archeological sites have the potential to be disturbed by recreational use or development activities.

Implementation of the Goals CUL-1 and the associated guidelines would protect these resources, thus maintaining any impacts of the General Plan at a less-than-significant level. Specifically, Guidelines CUL-1A through CUL-1E would require identification, consultation, and the preparation of inventories to ensure all cultural resources would be identified and thus avoiding unintentional destruction of resources. Compliance with Guideline CUL-1C and CUL-1F would result in a cultural resource surveys, inventories, evaluations, and property acquisitions that would ensure protection and restoration of cultural resources. Given the management goal and guidelines, there would not be substantial adverse effects on cultural resources present within Sonoma Coast SB. This impact would be considered less than significant.

4.6.6 GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGICAL RESOURCES

INTRODUCTION

This section analyzes impacts related to geology, soils, seismicity, and paleontological resources that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The geology, soils, and seismicity analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to geology, soils, and seismicity if 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, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, and/or landslides.
- ▶ Result in substantial soil erosion or the loss of topsoil.
- ▶ Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- ▶ Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- ▶ Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

The paleontological resources analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact on paleontological resources if it would:

- ▶ Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

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Risk of Exposure to Geologic and Seismic Hazards. Structures developed in Sonoma Coast SB would be subject to potentially hazardous geologic and soils conditions, including seismic events. Implementation of Goals SAFE-1 and FAC-1, and Guidelines SAFE-1A, FAC-1A, FAC-1B, FAC-1J, FAC-1K, and FAC-1M, as well as compliance with the California Building Standards Code, would maintain the risks of related hazards at an acceptable level, and this impact would be **less than significant**.

Sonoma Coast SB is located in a seismically active area. Portions of Sonoma Coast SB along the San Andreas Fault are located in an Alquist-Priolo special study zone, and, thus, fault rupture is possible. The main purpose of the Alquist-Priolo Earthquake Fault Zoning Act, passed in 1972, is to prevent the construction of buildings used for human occupancy on the surface trace of active faults (CGS 2003). Of the known geologic faults in Sonoma County, all show evidence of movement during the past 2 million years and are considered potentially active. Some are capable of producing earthquakes with magnitudes of 7.5 or greater (Sonoma County 1989). Strong seismic ground shaking would occur during a large earthquake, resulting in potential structural damages. The risk of seismic-related ground failure, such as liquefaction or landslide is moderate to high within Sonoma Coast SB. Liquefaction changes water-saturated soil to a semi-liquid state, removing support from foundations and causing buildings to sink. Landslides, downslope movements of soil and/or rock materials, may occur in areas of gentle slopes due to liquefaction of subsurface materials.

Further inland, rockslides and mass wasting is present in the upper Willow Creek watershed. The sandstone *mélange* present in the southern portion of the watershed is generally more unstable than the conglomeratic body to the north. Abundant rockslides are present throughout the sandstone *mélange*, especially at higher elevations. The well consolidated and resistant nature of the conglomerate in the northern portion has resulted in fewer and smaller landslides in this area (Daly 1980).

Sonoma Coast SB is also located in an area subject to inundation by tsunamis. Tsunamis are large ocean waves caused by undersea earthquakes or landslides. Implementation of Goal SAFE-1 and Guidelines FAC-1J, FAC-1K, and SAFE-1A would ensure that facilities and services within Sonoma Coast SB are designed to provide safety to visitors, and implementation of Guideline FAC-1M would ensure that design-specific studies or geologic review are performed prior to development on sites that would subject property or persons to significant risks from geologic hazards. All structures developed within Sonoma Coast SB would also have to comply with the standards contained in California Code of Regulations, Title 24, also known as the California Building Standards Code, through the Department's internal planning processes. As such, future development and improvements would include

structural reinforcements and other features required by the California Building Standards Code that would minimize geologic or seismically induced structural damage. Therefore, geologic and seismic hazards impacts would be less than significant.

In terms of soils and geologic hazards, the primary risks are with soil erosion and natural coastal processes. Some of the soils within Sonoma Coast SB are not capable of supporting existing or proposed septic systems. In addition, many areas along the coast are prone to landslides due to the seismic activities associated with the San Andreas Fault and the erosion caused by rainfall and ocean waves. Implementation of Goal FAC-1 and Guideline FAC-1B would ensure that proposed facilities are environmentally compatible and that site selection criteria is evaluated to determine site suitability. Implementation of Guideline FAC-1M would help to minimize potential conflicts between structural development and coastal erosion by requiring design-specific geotechnical studies prior to finalization of development plans. Given these goals and guidelines, the potential for soil and coastal erosion would be minimized; where erosion cannot be prevented (e.g., excavation areas and ocean cliff areas), adverse effects (i.e., structural damage and water quality degradation), would be maintained at a less-than-significant level.

IMPACT ANALYSIS

Impact
PAL

Adverse Effects on Paleontological Resources. Compliance with Goal NAT-3 and Guidelines NAT-3A, NAT-3B, and NAT-3C would ensure that future development and improvements within Sonoma Coast SB would not cause substantial adverse effects on paleontological resources present within Sonoma Coast SB. This impact would be considered **less than significant**.

The Preliminary General Plan includes goals and guidelines that would ensure protection, avoidance or minimization of disturbances to paleontological resources in Sonoma Coast SB. Natural artifacts, such as the possible Pleistocene animal rubs, represent a unique paleontological resource, and need to be treated as such while identification and analysis of these features continues. Rock-climbing on the surfaces of these natural artifacts could damage these resources.

Implementation of the Goal NAT-3 and the associated guidelines would protect these resources, thus maintaining any impacts of the General Plan at a less-than-significant level. For specific projects, Guidelines NAT-3A and NAT-3B would require identification, consultation, and the preparation of inventories to ensure all paleontological resources at specific project sites would be identified and thus avoiding unintentional destruction of resources. Compliance with Guideline NAT-3C would provide coordination with cultural resource specialists on protection and preservation of paleontological resources such as the possible Pleistocene animal rubs that may have both natural and cultural resource value. Given the management goal and guidelines, there would not be substantial adverse effects on paleontological resources present within Sonoma Coast SB. This impact would be considered less than significant.

4.6.7 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section analyzes impacts related to hazards and hazardous materials that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The hazards and hazardous materials analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to hazards and hazardous materials if it would:

- ▶ Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- ▶ Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- ▶ Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- ▶ Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- ▶ For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- ▶ For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- ▶ Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- ▶ Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

IMPACT ANALYSIS



Risk of Exposure to Hazardous Materials, and Other Hazards. The General Plan would allow new developments and improvements and would require management actions that that may involve the use of fuels and herbicides. Also, hazardous conditions may be caused by natural phenomena

or human uses. Implementation of the General Plan goals and guidelines, as well as compliance with existing codes, rules, and regulations, would maintain these risks at acceptable levels, and this impact would be **less than significant**.

There are no EPA classified hazardous materials sites within Sonoma Coast SB (EPA 2003). Implementation of the General Plan would not result in a substantial increase in the use of hazardous materials (e.g., propane, herbicides) within Sonoma Coast SB. Day-to-day operation of Sonoma Coast SB does not involve the disposal of hazardous materials, and Sonoma Coast SB would continue to contract with licensed providers of propane and herbicides. All transport, storage, and use of hazardous materials, as well as the development of new storage tanks or areas, would be in compliance with State and federal rules and regulations. Furthermore, Sonoma Coast SB is not located within one-quarter mile of any schools.

Implementation of the General Plan would not be in conflict with the emergency response plans of Sonoma County. Compliance with Goals ROAD-1 and SAFE-1 would ensure that safe roadways, facilities, and services are provided to visitors. Implementation of Guidelines ROAD-1A, ROAD-1G, FAC-1J, and FAC-1K, and SAFE-1A would ensure cooperation with emergency response agencies. No road closures are planned, and implementation of Goal ROAD-1 and Guideline ROAD-1G would also ensure that all development areas would be designed to maintain adequate access for emergency vehicles. All buildings would be designed in compliance with California Building Standards Code, which requires fire safety features in buildings. Implementation of Guidelines ROAD-1B, SAFE-1B, and SAFE-1D would ensure that visitors are notified of potential hazards by appropriate signage, or directed away from roads and trails that have unsafe conditions. Sonoma Coast SB is not located within two miles of an airport, and the General Plan would not permit the types of development that would be in conflict with the operation of the nearest airport in Santa Rosa.

Given the above, impacts related to risk of exposure to hazardous materials and other hazards would be less than significant.

4.6.8 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section analyzes hydrology and water quality impacts that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The hydrology and water quality analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to hydrology and water quality if it would:

- ▶ Violate any water quality standards or waste discharge requirements.

- ▶ Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- ▶ Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- ▶ Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- ▶ Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Otherwise substantially degrade water quality.
- ▶ Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- ▶ Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- ▶ Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- ▶ Inundation by seiche, tsunami, or mudflow.

IMPACT ANALYSIS

Impact HYDRO

Short-term and Long-term Effects on Water Resources. Development of facilities and additional visitor use have the potential to cause short-term and long-term hydrologic and water quality impacts. The General Plan contains goals and guidelines designed to protect water quality, manage runoff, respect floodplain processes, and address other hydrological issues; therefore, hydrology and water quality effects would be **less than significant**.

Development of land has the potential to cause adverse hydrologic effects to surface water hydrology and hydraulics, stormwater drainage, floodplain functions, and groundwater supplies and movement in several ways. Development and the associated construction activities can directly alter drainage courses and runoff patterns. Construction and long-term management actions can also result in soil compaction and constructed impervious surfaces that reduce the net amount of infiltration of runoff into the soil and increase runoff rates and quantities. In addition, the risk of exposure of people and property to flooding and flood hazards can increase if development proceeds without consideration of the floodplain and the

natural flooding patterns. All of these surface hydrologic features and functions can affect groundwater conditions in a variety of ways through alterations of groundwater recharge or interception. Additionally, use of surface and groundwater supplies for management actions (e.g., domestic consumption, landscaping) can adversely alter existing hydrologic patterns, particularly during periods of drought when surface and groundwater resources may be lacking.

Likewise, the quality of surface and groundwater resources could be adversely affected by facility development and/or increased visitor use. Construction activities (e.g., clearing, grading, excavation, utility installation, trail construction) and operations of facilities (e.g., roads, buildings) within and near Sonoma Coast SB have the potential to disturb soils and be exposed to rain and wind. These activities can lead to increases in soil erosion and sediment discharges via stormwater runoff from development sites. Contaminated runoff that enters surface waters can increase turbidity, reductions in prey capture for sight-feeding organisms, and sedimentation of aquatic habitats. Materials such as fuels, oils, paints, and concrete that are used during construction can also contaminate stormwater runoff. Release of hazardous substances to the aquatic environment can have potential harmful effects to fish and other aquatic life. Waste discharges associated with long-term management and visitor activities include petroleum-based contaminants from vehicles, and a variety of inorganic and organic constituents contained in pet and livestock wastes, and direct waste discharges associated with municipal wastewater treatment systems. The extent of potential environmental effects depends on the erodibility of soil types encountered, the types of construction and management practices, the extent and duration of disturbances, the timing of precipitation, and the proximity to receiving waters.

Conformance to General Plan Goals FAC-1, COAST-2, and INLAND-1 and implementation of their associated guidelines for development and management activities within Sonoma Coast SB would avoid and minimize the potential water resources impacts described above. Potential hydrologic and hydraulic impacts would be minimized through careful consideration of existing hydrologic conditions (Guidelines FAC-1A, and FAC-1B.), stormwater drainage design and controls (Guidelines FAC-1L, COAST-2A, COAST 2B, COAST-2C, INLAND-1A, and INLAND-1B), natural floodplain functions and minimization of exposure to flood hazards, and water conservation and water supply developments (Guidelines FAC-1A and FAC-1B). Potential surface and groundwater quality impacts would be minimized through implementation of standard waste discharge control Best Management Practices (BMPs) for construction and long-term runoff, as well as consideration of geologic and hydrologic resource limitations in the development of water and wastewater supply systems (e.g., onsite-septic systems), as required by Guidelines FAC-1B and FAC-1M. Through implementation of the protective goals and guidelines, impacts related to hydrology and water quality would be maintained at less-than-significant levels.

4.6.9 LAND USE AND PLANNING

INTRODUCTION

This section analyzes land use and planning impacts that would result from the implementation of the General Plan.

THRESHOLDS

The land use and planning analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to land use and planning if it would:

- ▶ Physically divide an established community.
- ▶ Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Conflict with any applicable habitat conservation plan or natural community conservation plan.

IMPACT ANALYSIS

Impact LAND

Consistency with Local Coastal Plan. The General Plan would not conflict with the LCP. General Plan guidelines would ensure all State Beach management activities and decisions would comply with the LCP, therefore this impact would be **less than significant**.

The General Plan is consistent with the goals and policies of the LCP. The preparation of a General Plan to assist in current and long range development planning of Sonoma Coast SB is specifically outlined in the general recommendations of the LCP. Roads and trails in Sonoma Coast SB were identified as areas for improvement of shoreline access. Other developments, such as a visitor center and additional parking were also suggested. Management actions within Sonoma Coast SB, including facility development, would be required to be consistent with the LCP, including the coastal zoning codes. Similar to the General Plan guidelines, the LCP policies on land uses pertain to resource and environmental protection issues, development constraints, and recreation, access, and housing needs. Future development within Sonoma Coast SB would be consistent with the land use designations for Sonoma Coast SB outlined in the LCP. As required by the California Coastal Act and with the implementation of Guidelines COMM-1D and COAST-1A, all future facility development, management plans, activities, and management decisions would be consistent with the LCP. Therefore, this impact would be less than significant.

4.6.10 NOISE

INTRODUCTION

This section analyzes noise impacts that would result from the implementation of the General Plan.

THRESHOLDS

The noise analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to noise if it would:

- ▶ Cause exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- ▶ Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- ▶ A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

IMPACT ANALYSIS



Construction and Operational Noise. Compliance with Goal FAC-1 and Guideline FAC-1N would ensure future development and improvements within Sonoma Coast SB would not generate noise levels that exceed the State noise guidelines. This impact would be **less than significant**.

The three primary sources of noise expected within Sonoma Coast SB are construction activities, operations of facilities, and vehicular traffic. According to the Office of Noise Control in the State Department of Health Services, which has developed criteria and guidelines for human exposure to noise, 60 dbA is the maximum acceptable noise level for the most sensitive land uses, such as single-family residences.

The U.S. Environmental Protection Agency (EPA) has found that the average noise levels associated with construction activities typically range from approximately 76 dbA to 84 dbA L_{eq} , with intermittent individual equipment noise levels ranging from approximately 75 dbA to more than 88 dbA for brief periods. Given this noise attenuation rate and assuming no noise shielding from either natural or human-made features (e.g., trees, buildings, fences), outdoor receptors within approximately 1,600 feet of construction sites could experience maximum instantaneous noise levels of greater than 60 dbA when onsite construction-related noise levels exceed approximately 90 dbA at the boundary of the construction site.

Potential sources of noise associated with future development or improvements within Sonoma Coast SB may include the operations of a visitor center and a vehicle maintenance yard. Whereas noise associated with visitor center might be limited to occasional parking lot-related noise (e.g., opening and closing of doors, people talking), a maintenance yard may include additional noise sources, such as the operation of hydraulic lifts and air compressors at automotive repair facilities. Noise from such equipment can reach intermittent levels of approximately 90 dBA at 50 feet from the source (EPA 1971).

If future development and improvements would generate additional visitation to Sonoma Coast SB, then traffic volumes and the associated noise volumes along roadways would increase. Where the traffic noise level would exceed the State's noise guidelines at sensitive uses along the roadways and where such increases would be perceptible, an adverse noise effect may result.

Goal FAC-1 and Guideline FAC-1N would require implementation of mitigating recommendations in noise studies for any development or improvement projects within Sonoma Coast SB that may generate unacceptable noise levels at nearby sensitive land uses. The recommendations, which may include noise walls, site design changes, and limits on hours of operations, would protect sensitive uses from unacceptable noise levels, and, as such, this impact would be less than significant.

4.6.11 TRANSPORTATION AND CIRCULATION

INTRODUCTION

This section analyzes transportation and circulation impacts that would result from the implementation of the General Plan.

THRESHOLDS

The transportation and circulation analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to transportation and circulation if it would:

- ▶ Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- ▶ Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- ▶ Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- ▶ Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- ▶ Result in inadequate emergency access.
- ▶ Result in inadequate parking capacity.

Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

IMPACT ANALYSIS



Increase in Trips and Effects on Roadway Safety. Implementation of the General Plan may increase traffic volume of various transportation modes to Sonoma Coast SB during non-commuter-peak periods, and the General Plan would permit roadway improvements. Implementation of management goals and guidelines would ensure traffic safety and adequate capacity, and the preparation of a park-wide road management plan and traffic studies prior to additional access development to the Upper Willow Creek Watershed. Any improvements to traffic and circulations made as a result of implementation of the General Plan aim to better accommodate and manage existing and future uses; thus, the impact would be **less than significant**.

The General Plan would permit additional recreational development that may attract additional visitation, which would increase vehicular trips to and from Sonoma Coast SB, including to the recent Willow Creek addition. Peak traffic volumes on the stretch of SR 1 adjacent to Sonoma Coast SB occur during summer weekends, particularly on Sundays (Sonoma County 1980). Most of the additional vehicular trips to and from Sonoma Coast SB would also occur during this peak period, during which visitors and local residents often experience severe traffic congestion and parking space shortage. This increase would also affect the more remote portions of the Willow Creek watershed, as the public becomes aware of additional recreational opportunities provided in this section of the Park. As there are no signalized intersections in the immediate vicinity of Sonoma Coast SB, maximum delays occur at the intersection of SR 1 with roadways and parking lot driveways as a result of turning movements.

The variable terrain in and around Sonoma Coast SB is a major constraint on roadway capacity and conditions. The Inland Watershed Management Zone is accessible only by narrow and winding County roads. The land near and beneath the roadways is subject to a high level of erosion, and roadway reconstruction and improvement projects have led to frequent lane closures on SR 1. Because SR 1 is a limited-shoulder, two-lane facility that accommodates both visitor and pass-by trips and because passing sight distance is limited by curves and grades, variable driving speed and unsafe pass-bys have led to inconveniences and traffic accidents. Traffic congestion also occurs along Coleman Valley Road and Upper Willow Creek Road during peak visitation periods. Potential roadway improvement projects for SR 1 include shoulder widening, passing lanes, channelization and intersection improvements to enhance turning movements, additional parking areas where unsafe parking conditions currently exists, and features that would minimize roadside parking on SR 1

(Caltrans 1985). Willow Creek Road and Coleman Valley Road are narrow winding roads maintained by Sonoma County.

Goal ROAD-1 and Guidelines ROAD-1A and ROAD-1C would require the preparation of a comprehensive roadway management plan and coordination with Caltrans and Sonoma County to ensure the roadways in and around Sonoma Coast SB would be maintained and improved, to the extent feasible, in order to provide safe and convenient roadway conditions for motorists, bicyclists, and pedestrians. Potential improvements that would be considered in a comprehensive roadway management plan include adding turning lanes to reduce congestion related to turning movements and realignment of roadways to avoid hazardous conditions. Implementation of Guideline ROAD-1B would result in the installation of roadway signage that can orient and inform visitors so that unsafe traffic activities may be minimized and trips associated with disoriented motorists (i.e., visitors spending excessive time on the roads looking for unmarked attractions or facilities) may be reduced. Guideline ROAD-1E would encourage the maintenance of and the provision of additional public transportation to and within Sonoma Coast SB. Compliance with Guidelines TRAIL-1B, TRAIL-1C, TRAIL-1D, and TRAIL-1F would encourage the use of bicycles to and from Sonoma Coast SB. As such, the General Plan may have a beneficial effect on the use of alternative modes of transportation. Guideline ROAD-1F would facilitate the development of new parking areas to meet increased demand for parking, as well as removing parking opportunities where hazardous conditions exist. With Guideline ROAD-1D, the possibility of adding a bike lane or a bike path, which would enhance the safety of bicyclists, would be explored in coordination with Caltrans. These goals and guidelines would maintain congestion at an acceptable level to the extent feasible and would increase traffic safety.

Implementation of Guideline ROAD-1G would help ensure the roadways in and around Sonoma Coast SB would be designed to provide adequate access for emergency vehicles. Given the General Plan goal and guidelines, impacts related to congestion, traffic safety, emergency vehicle access, and alternative modes of transportation would be less than significant.

Implementation of Guideline ROAD-1H requires traffic studies for proposed access points for the Willow Creek watershed. The road surveys in concurrence with the Willow Creek Access Site Evaluation will help evaluate safe access as well as potential traffic impacts on surrounding lands to any proposed access sites for the inland Willow Creek watershed.

4.6.12 UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

This section analyzes impacts on utility and public service systems that would result from the implementation of the Preliminary General Plan.

THRESHOLDS

The public services and utilities analysis uses criteria from the State CEQA Guidelines Appendix G. According to these criteria, implementation of the General Plan would have a significant impact related to public services and utilities if it would:

- ▶ Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, and other public facilities.
- ▶ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- ▶ Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ▶ Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ▶ Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- ▶ Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- ▶ Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Comply with federal, state, and local statutes and regulations related to solid waste.

IMPACT ANALYSIS

Impact
UTIL

Increase Demand for Utility and Public Services. The General Plan would allow new developments and improvements that would generate an increase in the demand for utility and public services. For law enforcement, fire protection, emergency medical, electricity, propane, telephone, solid waste, and road maintenance services, existing service providers and resource capacities are expected to be sufficient; for water supply and wastewater, site investigation to ensure site compatibility with facility development would be required. As such, the impact would be **less than significant**.

The General Plan would allow the development of new facilities and site improvements that would generate the demand for additional water, wastewater, electricity, propane, solid waste, telephone, law enforcement, fire protection, emergency medical, and road maintenance services.

New water supply and water treatment, storage, and conveyance facilities may be needed for water service and would be built based on new demand associated with specific facility developments. The primary sources of water along the coastal area of Sonoma County are groundwater and the associated springs. The prevalent Franciscan geologic formation yields limited quantities of groundwater, and, as a result, inadequate water supply has been a major constraint for development in the area. The Department may contract with local water purveyors to provide water for Sonoma Coast SB, or it may develop new wells or water collection systems. In either case, new development in Sonoma Coast SB must demonstrate availability of water supplies before construction activities may proceed, in accordance with Guidelines FAC-1B.

There are no sewer systems available in Sonoma Coast SB. Thus, new facilities would require onsite wastewater systems (e.g., septic tanks). Many of the soil types in Sonoma Coast SB are not compatible with onsite wastewater systems. Sites that are suitable for onsite wastewater systems may be identified through geotechnical investigations. New development in Sonoma Coast SB must demonstrate site suitability for onsite wastewater systems before construction activities may proceed, in accordance with Guideline FAC-1B.

For electricity, propane, and telephone services, the Department would continue to contract with private service providers (e.g., PG&E). For solid waste collection and disposal and road maintenance services, the Department would provide the services or would contract with Caltrans and/or Sonoma County for services. For fire protection services, the Department would coordinate with California Department of Forestry and Fire Protection, Bodega Bay Fire Protection District, and Monte Rio Fire Protection District. Law enforcement within Sonoma Coast SB is provided by the rangers; in addition, the Department would coordinate with Sonoma County Sheriff Department and California Highway Patrol for law enforcement services. Emergency medical services are also provided by rangers. In addition emergency medical services may be provided by the fire districts, and emergency air transport services to hospitals in Santa Rosa and Napa would be provided by Henry 1 and Cal Cord.

New equipment and facilities may be needed to serve the future development within Sonoma Coast SB. Adverse environmental effects associated with new infrastructure and services are expected to be typical of the equipment and facility types. In accordance with Goal FAC-1 and Guidelines FAC-1B, sites for new infrastructure would be selected based on criteria established in the General Plan that give preference to environmental compatibility and logistic convenience. If no sites within Sonoma Coast SB would meet the site selection criteria, the Department may consider acquiring sites that are suitable to the proposed development, in accordance with Guideline FAC-11. Construction and operations of the equipment and facilities would be in compliance with State and federal rules and regulations, as well as management goals and guidelines of this General Plan. As such, new

infrastructure and services would be environmentally compatible with the resources within Sonoma Coast SB, and any degradation of environmental values would not be substantial. Environmental review for new development would be required. While the exact nature of the infrastructure and service needs would not be determined until the development proposals become available, any adverse effects would be mitigated to the extent feasible. This impact would be less than significant.

4.7 OTHER CEQA CONSIDERATIONS

4.7.1 UNAVOIDABLE SIGNIFICANT EFFECTS ON THE ENVIRONMENT

As discussed above, no unavoidable significant impacts would result from the adoption and implementation of this General Plan.

4.7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

No significant irreversible changes to the physical environment are anticipated from the implementation of the enclosed General Plan. Facility development, including structures, roads and trails, may be considered a long-term commitment of resources; however, the impacts can be reversed through removal of the facilities and discontinued access and use. Ongoing adverse effects on the environment, if any, can be monitored by staff through adaptive management and consideration of carrying capacity issues. The Department does remove, replace, or realign facilities, such as trails and campsites, where impacts have become unacceptable either from excessive use or from a change in environmental conditions.

The construction and operation of facilities may require the use of non-renewable resources. This impact is projected to be minor based on considerations of sustainable practices in site design, construction, maintenance, and operations that are generally practiced by the Department. Sustainable principals used in design, construction, and management, such as the use of non-toxic materials and renewable resources, resource conservation, recycling, and energy efficiency, emphasize environmental sensitivity (Guidelines SUST-1, SUST-2).

4.7.3 GROWTH INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth inducement itself is not an environmental effect, but may lead to environmental effects. Such environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or wildlife habitats, or conversion of agricultural and open space land to urban uses.

The General Plan does not propose the development of any specific projects, so it would not have direct growth-inducing impacts. There would be indirect growth-inducing impacts, however, because the General Plan provides a framework for future development. The analysis of these indirect growth-inducing impacts for the General Plan focuses on two main factors: (1) promotion of development and population growth, and (2) elimination of obstacles to growth.

Development of new recreational and interpretive facilities and incorporation of new parcels into Sonoma Coast SB would increase recreational opportunities and visitation capacity in Sonoma Coast SB. If visitation to Sonoma Coast SB increases, the demand for lodging, restaurants, and other tourism-related businesses and employment would also increase. The extent of such economic effects is unknown at this time, but could indirectly result in additional development in the region wherever permitted by established land use plans and zoning ordinances. Additional staffing at Sonoma Coast SB to serve increased visitation may generate housing demand. However, the demand would not be substantial and would have minimal effect on growth in the region. Development of infrastructure is often cited as a way through which obstacles to growth are eliminated. Additional infrastructure may be developed for the purpose of serving new facilities in Sonoma Coast SB. The Department does not typically build infrastructure for the purpose of supporting growth, and no infrastructure has been proposed for Sonoma Coast SB. If development of infrastructure in Sonoma Coast SB is proposed, it would comply with current federal laws, State laws, LCP requirements, and subsequent environmental review would be required.

4.7.4 CUMULATIVE IMPACTS

This EIR provides an analysis of cumulative impacts of the proposed General Plan, as required in State CEQA Guidelines Section 15130. Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time” (State CEQA Guidelines §15355[b]). By requiring an evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored.

To evaluate cumulative environmental impacts, other projects that could cumulatively contribute to the impacts described in this EIR need to be identified. Development along the Sonoma Coast and along the nearby stretch of the Russian River may contribute to cumulative impacts associated with the implementation of the General Plan. Maximum development in these areas would be based on the buildout of the Sonoma County Local Coastal Plan and the Sonoma County General Plan. In the vicinity of Sonoma Coast SB, future development may include residences in the adjacent subdivision communities (e.g., Sereno Del Mar, Carmet), as well as in Bodega Bay and along the Russian River.

As described above, the facility development and resource management efforts that may occur with the implementation of the General Plan would not result in significant project-level environmental impacts. The goals and guidelines in the General Plan would require management actions that would preserve, protect, restore, or otherwise minimize adverse effects related to biological resources, cultural resources, aesthetic quality of viewsheds, seismic hazards, water quality, traffic congestion, inadequate water supply, etc. These management actions would also maintain Sonoma Coast SB's contribution to cumulative impacts to a less-than-significant level.

4.8 ALTERNATIVES TO THE PROPOSED PROJECT

The guiding principles for the analysis of alternatives in this EIR are provided by the State CEQA Guidelines Section 15126.6, which indicates that the alternatives analysis must: (1) describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project; (2) consider alternatives that could reduce or eliminate any significant environmental impacts of the proposed project, including alternatives that may be more costly or could otherwise impede the project's objectives; and (3) evaluate the comparative merits of the alternatives. The State CEQA Guidelines Section 15126.6(d) permits the evaluation of alternatives to be conducted in less detail than is done for the proposed project. A description of the project alternatives, including the No Project Alternative, is provided in this EIR to allow for a meaningful evaluation, analysis, and comparison of these alternatives with the Proposed Project Alternative, which is the General Plan as described in Chapter 3.

4.8.1 ALTERNATIVES

ALTERNATIVE 1: NO POTENTIAL FACILITY DEVELOPMENT AREA

Description

Under this alternative, no potential development areas (see Exhibit 3-1) would be included in the General Plan, and all existing facilities would be retained. Expansions and improvements to existing facilities would occur, if physically possible and environmentally suitable, and only minor new facilities (e.g., signage) would be developed on existing open space. Under this alternative, the existing visitor center, administrative center, and maintenance yard would be improved and expanded in order to provide additional services that meet the needs of visitation increases. No new trails, campgrounds, alternative overnight facilities, and boat launches would be developed. Management actions for resource protection and recreation and safety enhancement would be required similar to that required under the Proposed Project Alternative.

Evaluation

Under this alternative, adverse conditions associated with the existing facilities, such as flooding and close proximity to sensitive habitats, may be remedied to the extent permitted by existing physical conditions (e.g., flood-proofing, water quality buffers, educational signage).

Due to site limitations, potential historic nature of buildings, and other environmental factors, expansion of existing facilities may be limited. Thus, the capacity to accommodate additional visitors (i.e., campgrounds, trails, storage space for equipment, office space for staff) may also be restricted. As such, the potential for overuse of existing facilities and the related environmental effects (e.g., trail erosion) is greater than under the other alternatives. Due to the locations of existing facilities in Sonoma Coast SB, traffic congestion may be greater than under the Proposed Project Alternative, which would allow relocation of facilities to more suitable sites. Under the No Potential Development Area Alternative, less open space would be developed, thus minimizing potential disturbances to wildlife and other environmental incompatibilities in currently undeveloped areas of Sonoma Coast SB.

ALTERNATIVE 2: FEWER POTENTIAL DEVELOPMENT AREAS

Description

Under this alternative, the General Plan would include only two potential development areas, which would be located at the Carrington parcel and the Salmon Creek area which are already developed and have relatively easy access from the park's main thoroughfare. No new facilities would be considered for development in the northern portion of Sonoma Coast SB near the Russian River and Willow Creek or near Bodega Bay. The number of new facilities under this alternative would be similar to that under the Proposed Project, as the number and capacity of facilities are driven by visitor demand rather than by the number of sites available for development. Management actions for resource protection and recreation and safety enhancement would be required similar to those required under the Proposed Project Alternative.

Evaluation

As with the Proposed Project, specific sites for facility development have not been identified under this alternative. However, all new facilities would have to be located in the Salmon Creek or Carrington areas under this alternative. The number of new facilities would be similar to that of the Proposed Project Alternative. Under this alternative, the distribution of impacts may be different but would not be necessarily be less than under the Proposed Project. For example, less aesthetic, noise, traffic, and other types of impacts would be expected under this alternative in the Willow Creek and Bodega Bay areas, but the impacts may be greater at the Carrington or Salmon Creek areas where facilities may be clustered. In addition, there would be fewer potentially suitable sites available, limiting the number and variety of sources that could be developed. Under this alternative, a new maintenance yard may have to be developed farther away from other park units in the District, resulting in less logistic convenience. New recreational facilities would not be developed in the Bodega Bay or Willow Creek area, and recreational opportunities would be somewhat lower than under the Proposed Project Alternative. Overall, the impacts would be similar under the Reduced Potential Development Area Alternative as the Proposed Project Alternative, although no significant impacts would result under either alternative.

ALTERNATIVE 3: NO PROJECT

Description

The California Environmental Quality Act requires an evaluation of the “no project” alternative and its impact (CEQA Guidelines §15126.6[e][1]). The No Project Alternative represents continuation of existing management actions, and its the analysis is based on the physical conditions that are likely to occur in the future if the project (the proposed General Plan) is not approved and implemented. The purpose of describing and analyzing the No Project Alternative is to allow decision-makers to compare the impacts of approving the proposed General Plan with the expected impacts of not approving the General Plan. Without a general plan for Sonoma Coast SB, it is assumed that the existing patterns of operation and management would continue under this alternative and no major recreational or operational facilities would be developed. Visitation increases would be somewhat smaller than under the Proposed Project due to less recreational opportunities and visitation capacity under this alternative. However, overall use would still be expected to increase as the state-wide and regional populations grow. The management actions that would protect, preserve, and restore natural and cultural resources beyond the requirements of laws and regulations would not occur under the No Project Alternative.

Evaluation

Under this alternative, the Department would need to provide additional visitor services and maintenance activities from the existing facilities, the capacities of which have been determined to be inadequate. Existing adverse environmental conditions associated with existing facilities (e.g., flooding, traffic safety) may not be remedied unless required by law or regulation. Management plans and improvements (e.g., signage, water quality buffers, turning lanes) associated with the proposed General Plan may not occur. Unique and important cultural resources and sensitive and listed biological resources may not be afforded additional protection and restoration except as required by laws and regulations. Compared to the Proposed Project, this alternative would result in less of an impact related to construction air quality, traffic noise, and water supply because no new facilities would be constructed. This alternative would result in greater impacts related to traffic safety, biological resources, cultural resources, and water quality because no additional facilities to handle increased visitor demand would be available. Therefore, the No Project Alternative may result in potentially significant impacts to these resources.

4.8.2 IDENTIFICATION OF THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines §15126(d)(2) state that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives. Alternatives considered in this Draft EIR include the Proposed Project (the proposed General Plan), the No Potential Facility Development Area Alternative, the Reduced Potential Facility Development Area Alternative, and the No Project Alternative.

Under all four alternatives, increased visitation at Sonoma Coast SB would generate demand for additional facility capacities, although increase would occur at different rates for different alternatives. The limitations to facility improvements and expansions would be greatest under the No Project Alternative, followed by the No Potential Development Area Alternative, the Fewer Potential Development Areas Alternative, and then the Proposed Project Alternative. Because the actual number of facilities developed or the amount of facility expansion under each of the alternatives cannot be determined, the extent of environmental impacts related to demolition, construction, and operational activities cannot be assessed at this time and cannot be differentiated among the Proposed Project Alternative, Reduced Potential Development Area Alternative, and the No Potential Development Area Alternative. However, the nature of potential environmental impacts are known and are described above under each of the environmental topics in this chapter, and the General Plan goals and guidelines would render all impacts to less-than-significant level for all but the No Project Alternative. This is because for all but the No Project Alternative, management goals and guidelines for preserving and restoring natural and cultural resources would be implemented.

The Proposed Project Alternative is the environmentally superior alternative of the alternatives considered. The Proposed Project Alternative would provide for the best balance between preservation and use of natural, cultural, and recreational resources at Sonoma Coast SB by allowing most flexibility for facility improvement, redevelopment, and relocation. For example, if existing adverse environmental conditions cannot be adequately remedied at existing sites in light of increasing visitation and usage in the future or if additional facilities must be developed to meet visitor demand and avoid overuse of existing facilities, the Proposed Project Alternative would allow a larger number of potential sites to be considered for development. Thus the potential for selecting the most optimum sites, in consideration of minimizing environmental impacts, may be chosen.