

DRAFT ENVIRONMENTAL IMPACT REPORT

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities Project

SCH no. 2017112054



PREPARED FOR
County of Sonoma, Natural Resources Section
2550 Ventura Avenue, Santa Rosa, CA 95403

December 2019

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for the
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Prepared for:



**COUNTY OF
SONOMA**

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DECEMBER 2019

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EXECUTIVE SUMMARY

Introduction

The County of Sonoma (County) has prepared this environmental impact report (EIR) to provide the public and responsible agencies information about the potential adverse effects on the local and regional environment associated with the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities Project (proposed project). This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Section 21000 et seq., and the CEQA Guidelines in the California Code of Regulations, Title 14, Section 15000 et seq.

Publication of the EIR marks the beginning of the 45-day public review period, during which written comments regarding the adequacy of this EIR may be submitted to the County's project planner:

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Following the close of the public review period, the County will prepare a Final EIR, which will include responses to all substantive comments received during the EIR public review period and any necessary changes or adjustments to the text and analysis in the Draft EIR. The County may use this EIR to approve or modify the proposed project, make findings regarding identified impacts, and if necessary, adopt a Statement of Overriding Considerations regarding these impacts.

Project Description

Project Location

The proposed project site is located on the approximately 500-acre Bordessa Ranch property, at 17000 Valley Ford Cutoff, in unincorporated Sonoma County, west of the town of Valley Ford (Figure 2-1, Regional Location). The project site is located approximately one mile south of Bodega, California, and approximately 2.5 miles west of Valley Ford. The Bordessa Ranch property is bordered by State Route 1 (SR 1) on the north and extends to the Estero Americano (Estero) on its south, encompassing rolling hills and two prominent knolls. Existing adjacent land uses are mostly rural agricultural with the Sonoma Coast Villa Resort & Spa located across SR 1 generally north of the site.

Project Overview

In 2012, the Sonoma County Agricultural Preservation and Open Space District (District) purchased a conservation easement (Conservation Easement) and trail easement (Trail Easement) over property owned by Alfred and Joseph Bordessa (Bordessa Ranch). The purpose of the Conservation Easement is to preserve and protect the conservation values of the property, including natural resources, habitat connectivity, open space and scenic views, agricultural resources, and recreation and education. The purpose of the Trail Easement is to ensure that trail corridors and associated staging areas are established and made available to the public in perpetuity for low-intensity public outdoor recreational and educational purposes consistent with the purpose of the Conservation Easement to preserve and protect natural resources, habitat connectivity, open space and scenic views, and agricultural resources.

The District is proposing to designate trail corridors and associated staging (parking) areas pursuant to the Trail Easement and consistent with the Conservation Easement. Under the terms of the Trail Easement, the District must designate and survey the precise locations of two 50-foot-wide pedestrian-only trail corridors, cumulatively not to exceed 5 miles in length, and two staging areas, not to exceed 1.5 acres in total combined area. Upon designating and surveying the trail corridors and associated staging areas, the District anticipates conveying the Trail Easement to the County, which would then be responsible for developing recreational amenities as provided in the Trail Easement and subject to the Conservation Easement, which the District would retain.

The proposed project would establish two pedestrian/hiker-only trail corridors with associated staging areas (trailheads/parking lots) that would allow for low-intensity public access to pursue outdoor, recreational, and educational uses. As outlined in the Trail Easement, future uses may include hiking, nature study, bird watching, sightseeing, picnicking, outdoor education, docent-led tours, scientific research and observation, and other similar uses. Allowable uses may also include limited, seasonal walk-in access to the Estero for pedestrians and hand-carried, non-motorized boats, such as kayaks and canoes.

Project Objectives

The project objectives include the following:

- Provide public access to the Trail Corridors and Staging Areas in perpetuity for low-intensity public outdoor recreational and educational purposes in accordance with the District's Grant Agreement with the California Coastal Conservancy, dated May 3, 2012 (Agreement No. 11-063).

- Provide public access within the Trail Easement area consistent with the preservation of natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources.
- Create public access pedestrian-only trails that provide a broad public benefit for all ages and cultures and users of varying abilities.
- Provide pedestrian-only trails to support interactive educational experiences.
- Provide pedestrian-only trails that balance resource protection with high quality public access and maximize sensitive resource protection.
- Design pedestrian-only trails in accordance with appropriate trail standards, including the California Department of Parks and Recreation’s Trails Handbook (1991, revised 2019) and Accessibility Guidelines (2105) and the California Department of Conservation and Recreation Trails Guidelines and Best Practices Manual (2010).
- Provide pedestrian-only trails to a unique and inspiring landscape that promote and enhance public enjoyment and appreciation of the natural, cultural and scenic resources on the property.

Comments Received in Response to the Notice of Preparation

The NOP for this Draft EIR was released on November 20, 2017, and the public comment period closed on December 20, 2017. The County received a total of nine letters; four comment letters were received from the public and one from an attorney. Comment letters received from four public agencies include from the United State Department of Commerce, Greater Farallones National Marine Sanctuary, California State Coastal Conservancy, California Department of Transportation, and the Sonoma County Farm Bureau. A brief overview of the primary concerns raised in the NOP comment letters is included the Introduction of each technical section in Chapter 3. Some of the letters raised concerns that included the potential for an increase in vandalism, litter, trespassing, and illegal fires as well as the potential for conflicts between trail users and cattle. These comments are not relevant to the EIR, but have been addressed in chapter 3 to the extent possible and have been provided to the decision-makers for their review. The purpose of the NOP process is to solicit input from public agencies and the public on the scope of the EIR analysis. Opinions on the merits of the project are noted, but are not considered relevant for the purposes of defining the scope of the analysis. All of the NOP comment letters received are included in Appendix A.

Environmental Impacts and Mitigation Measures

Table ES-1 presents a summary of potential environmental impacts that could result from the project. Only impacts identified as potentially significant or significant requiring mitigation are listed.

For each significant impact, the table indicates the level of significance after mitigation. Please refer to Chapter 3, Environmental Analysis, in this EIR for a complete discussion of each impact. A reporting and monitoring program for all mitigation measures identified in this EIR would be prepared in accordance with the requirements of Public Resources Code Section 21081.

The proposed project, if implemented, could result in significant adverse environmental impacts. Mitigation measures proposed as part of the project, as well as measures identified by this EIR, would avoid or reduce all impacts to a less-than-significant level.

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<i>3.1 Aesthetics</i>		
3.1-1 Implementation of the proposed project may have a substantial adverse effect on a scenic vista.	No mitigation measures are required.	LTS
3.1-2 Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.	No mitigation measures are required.	LTS
3.1-3 Implementation of the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.	No mitigation measures are required.	LTS
3.1-4 Implementation of the proposed project would not potentially create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	No mitigation measures are required.	LTS
3.1-5 The proposed project would not contribute to significant cumulative changes in the existing visual character of the area, including the introduction of light and glare.	No mitigation measures are required.	LTS
<i>3.2 Agricultural Resources</i>		
3.2-1 The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	No mitigation measures are required.	LTS
3.2-2 The proposed project would not conflict with existing zoning for agricultural use.	No mitigation measures are required.	LTS

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
3.2-2 The proposed project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	No mitigation measures are required.	LTS
3.2-3 The proposed project would introduce trail users in close proximity to cattle grazing that could result in potential conflicts and may contribute to the potential for crop contamination.	No mitigation measures are required.	LTS
3.2-4 The proposed project would not contribute to cumulative impacts associated with the loss or conversion of existing agricultural resources.	No mitigation measures are required.	LTS
<i>3.3 Air Quality</i>		
3.3-1 Implementation of the proposed project may conflict with or obstruct implementation of the applicable air quality plan.	No mitigation measures are required.	LTS
3.3-2 Implementation of the proposed project may result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable federal or state ambient air quality standard.	No mitigation measures are required.	LTS
3.3-3 Implementation of the proposed project could expose sensitive receptors to substantial pollutant concentrations.	No mitigation measures are required.	LTS
3.3-4 The proposed project could contribute to cumulative air quality emissions within the existing area. The contribution would not be considerable.	No mitigation measures are required.	LTS

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<i>3.4 Biological Resources</i>		
<p>3.4-1 The proposed project could have a substantial adverse effect on 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.</p>	<p>BIO-1 Worker Environmental Awareness Training. All construction workers shall receive a worker environmental awareness training (WEAT) to be conducted by a qualified biologist. The WEAT may also be conducted through a video or Powerpoint presentation created by a qualified biologist specifically for this project. The WEAT shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project site, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities including the name/contact information of the monitoring biologist, and the nature and purpose of protective measures including best management practices (BMPs) and other required mitigation measures. They shall also be instructed as to sensitive resource areas, including wetlands and waters of the U.S., to avoid within the project site other than where impacts have been authorized, and relevant laws and regulations for each resource.</p> <p>BIO-2 Trail Alignment Fencing and Interpretive Signage. To minimize the potential for direct and indirect impacts to sensitive biological resources occurring on the project site by recreational users venturing off-trail, and to help keep visitors contained within the trail alignments, exclusionary fencing may be used in strategic areas to protect sensitive resources. Specifically, the purpose of the fencing shall be to avoid/minimize the following associated with off-trail use by visitors: (1) trampling and disturbance to on-site special-status plant populations; (2) harassment, disturbance, injury and/or mortality to on-site special-status wildlife species; (3) sedimentation, erosion, or other degradation to the on-site ponds, drainages, and other aquatic/riparian features; and (4) disturbances to nesting native bird species.</p> <p>As stated in Chapter 2, project description, new or re-located fencing and gates would also be designed to accommodate cattle grazing as well as to minimize conflicts between trail users, cattle grazing, and ranch activities. To accommodate the ability of cattle to access various areas within the Bordessa property, fencing shall not extend the entire length of the trail alignments, but would focus on areas of the trails adjacent to sensitive biological habitats or areas where special-status plant and/or wildlife species are known to occur.</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>The fencing design (including openings to accommodate cattle), extent, location, and overall construction of the fence shall be at the discretion of County Regional Parks Department in coordination with the Bordessa Ranch landowners, the Sonoma County Agricultural and Preservation Open Space District (District), and a qualified biologist. The fence shall be visually appealing and harmonize with the general landscape (e.g., wooden buck or post/rail type fences) and not detract from the overall visitor experience while discouraging off-trail use. The fence design shall also provide for the ability of wildlife species to move through or over the fencing such that movement perpendicular to the fencing would not be adversely inhibited. A fencing design plan that addresses the design and location factors discussed above shall be prepared prior to project construction and shall be approved by the County Regional Parks Department with review by the Bordessa Ranch landowners, the District, and a qualified biologist with expertise on the species and ecosystems on the property.</p> <p>As discussed in Chapter 2, Project Description, interpretive signage would be provided in the staging areas, at the trailheads, at vista points along the trails, and at the Estero; additional interpretive signage providing information about sensitive plant and wildlife species would also be provided at key locations along the trails. Signage content addressing sensitive plant and wildlife species shall be prepared by the County Regional Parks Department in coordination with a qualified biologist.</p> <p>BIO-3 American Badger. To avoid/minimize direct and indirect impacts on American badger as a result of project implementation, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. Protocol-level surveys for American badger shall be completed within 30 days prior to construction to determine the locations of any active dens within 200 feet of proposed ground disturbance areas. Surveys shall consist of presence/absence surveys to determine if any winter or natal American badger dens occur within the project site. Potential badger burrows/dens located during the survey shall be evaluated (typically with remote cameras) to determine activity status. Surveys shall be performed by a qualified biologist familiar with badger life history and that possesses experience with identification of active badger burrows and badger activity patterns. 	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>2. Any natal dens determined to be used by American badger, as identified from the surveys, shall be avoided and a 100-foot buffer shall be established around the dens during ground disturbance activities until it is determined by the qualified biologist that the den is no longer active and the young are no longer dependent upon the den for survival.</p> <p>3. If construction occurs during the non-breeding period (typically from June through February) and an active non-natal den is found to be within or immediately adjacent to the construction footprint, an attempt can be made by a qualified biologist to trap or flush the individual and relocate it to designated open space on the site. Trapping can only be conducted by a qualified biologist with the appropriate permits and credentials. After a trapping or flushing effort is completed, and/or after it is confirmed that a natal den is no longer active, the vacated den can be excavated and upon confirmation that the den is not occupied, the den can be collapsed and construction can proceed.</p> <p>BIO-4 Special-Status Bats. As described in Chapter 2, Project Description, all trail construction would be done by hand or with the use of small equipment. Construction of the access road and staging areas adjacent to the barn facility and outbuilding would require the use of heavy equipment such as graders. To ensure that the noise of such equipment would not adversely affect any maternity roosts that could occur within the barn or outbuilding, a pre-construction survey shall be conducted by a qualified bat biologist to determine if active maternity roosts exist within the barn or outbuilding. If maternity roosts are observed, and construction of the access road and/or staging areas adjacent to the barn or outbuilding would occur at the time the roosts are active, equipment emitting ultrasonic noise (i.e., those having frequencies above the range of human hearing >20 kilohertz [kHz]) shall be prohibited from the construction area until the maternity roost is no longer active, as determined by the qualified bat biologist. Alternatively, equipment that emits noise with frequencies <20 kHz can be used to grade and prepare the access road and staging areas adjacent to the barn and outbuilding. As previously noted, signage describing the sensitivity of biological resources shall be located at various key points along the trails. One located at the southern staging area might include interpretation of importance of bats and protected species and penalties for disturbance of species and habitat, reminding users of the importance of staying on designated trails. Fencing may also be used as necessary to keep users on trails and away from the barn, roosting bats, and ranching activities.</p>	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>BIO-5 Burrowing Owl. To avoid/minimize direct and indirect impacts on burrowing owls as a result of project implementation, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. Protocol-level surveys for burrowing owls shall be conducted 30 days prior to scheduled construction activity that is conducted during the breeding season (March through August) to determine whether burrowing owls are present on site and, if so, their breeding status. Surveys shall be conducted by a qualified biologist with experience conducting such surveys. 2. If during the surveys burrows are observed being used by non-nesting burrowing owls within the construction footprint, construction work shall cease until owls are evacuated from any such burrow using a California Department of Fish and Wildlife-approved burrow closure procedure in accordance with the California Department of Fish and Game “Staff Report on Burrowing Owl Mitigation” (CDFW 2012) and by a qualified biologist. Once owls from any such burrow have been successfully evacuated, the burrow can be collapsed and construction work can proceed. 3. If nesting burrowing owls are observed during these surveys, construction work within 300 feet of active nest burrows shall be delayed until young have fledged and are independent of the nest burrow, as determined by a qualified biologist. The qualified biologist may reduce the 300-foot setback based on the type, timing, extent, and intensity of the construction activity and other factors such as site topography and vegetation cover between the construction activity and the burrow. Once any young have fledged and are no longer dependent upon the nest burrow, the same burrow closure procedure described above shall be used to confirm the burrow is inactive before ground disturbance activities can continue near the burrow. <p>BIO-6 Native Nesting Birds. To avoid/minimize direct and indirect impacts on nesting birds within or adjacent to the proposed trail alignments as a result of project implementation, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. A nesting bird survey shall be completed by a qualified biologist no earlier than two weeks prior to construction of the trails and associated infrastructure during the nesting season for most 	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>bird species in this region (March 1-August 30) to determine if any native birds are nesting within 300 feet of the proposed disturbance area (500 feet for raptors).</p> <ol style="list-style-type: none"> 2. If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined by the qualified biologist. The avoidance buffer distance shall consider such factors as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. 3. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. Any woody vegetation (shrubs and trees) needing removal for trail construction shall be removed, as feasible, outside of the bird nesting season (Sept. 1 – Feb. 31) to avoid impacts to nesting birds. <p>BIO-7 Short-eared owl, Northern Harrier, White-tailed kite, Yellow Warbler, Bryant’s savannah sparrow, Grasshopper sparrow, Saltmarsh common yellow-throat. To avoid/minimize direct and indirect impacts on these special-status bird species within or adjacent to the proposed trail corridors as a result of project implementation, the following measure shall be implemented:</p> <ol style="list-style-type: none"> 1. The nesting bird survey described in Mitigation Measure BIO-6 shall include searches for short-eared owl, northern harrier, white-tailed kite, yellow warbler, Bryant’s savannah sparrow, grasshopper sparrow, and saltmarsh common yellow-throat if construction and ground disturbance activities will occur during the nesting season of these species. If active nests are located during the surveys, the same avoidance/minimization measures described in this measure shall also be implemented. <p>BIO-8 California Red-legged Frog. To avoid/minimize direct and indirect impacts to California red-legged frog (CRLF) within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:</p>	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<ol style="list-style-type: none"> 1. Exclusion fencing shall be installed around any trail construction and associated work areas that occur within 100 feet of suitable CRLF aquatic habitat (including Ponds 1-4 and ID-01 and ID-02) to prevent CRLF from entering the work area. In addition, siltation fences shall be installed along the aquatic features to minimize siltation and/or erosion into the features during construction. 2. During any construction work conducted within 100 feet of suitable CRLF habitat, a qualified biologist shall be on site to monitor the work effort and conduct regular surveys within the 100-foot setback area, including potential upland refugia habitat, in search of individual CRLF. If CRLF are observed within the buffer areas, work shall be postponed until either (1) the frogs move away from that location on their own, or (2) the frogs are removed and relocated to a safe location by a qualified biologist that possesses a 10(a)1(a) Recovery permit and has approval from USFWS. <p>BIO-9 Western Pond Turtle. To avoid/minimize direct and indirect impacts to western pond turtle within or adjacent to the proposed trail alignments as a result of project implementation, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. Exclusion fencing shall be installed around any trail construction and associated work areas that occur within 100 feet of suitable western pond turtle (WPT) aquatic habitat (including Ponds 1-4 and ID-01 and ID-02) to prevent WPT from entering the work area. In addition, siltation fences shall be installed along the aquatic features to minimize siltation and/or erosion into the features during construction. 2. During any construction work occurring within 100 feet of suitable WPT habitat, a qualified biologist shall be on site to monitor the work effort and conduct regular surveys within the 100-foot setback area in search of individual CRLF. If WPT are present within the buffer areas, work shall be postponed until either (1) the turtles move away from that location on their own, or (2) the turtles are removed and relocated to a safe location within the project site by a qualified biologist. 3. Because WPT use upland grassland habitat near aquatic habitat (typically within 325 feet of aquatic sites) for nesting and aestivation, a pre-construction survey for WPT shall be conducted by a qualified biologist prior to any ground disturbance activities occurring within suitable nesting/aestivation habitat (as determined by the biologist) 	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>within 325 feet of these aquatic sites. If active nesting and/or aestivation sites are identified, these areas shall be avoided during construction activities. If avoidance is not possible, the nest and/or turtle should be removed by a qualified biologist and relocated to an appropriate location within the project site.</p> <p>BIO-10 Myrtle’s Silverspot Butterfly. To avoid/minimize direct and indirect impacts to Myrtles’s silverspot butterfly, in particular its host plant western dog violet, within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. To avoid/minimize impacts to Myrtle’s silverspot butterfly, a pre-construction survey shall be performed no sooner than 30 days prior to the onset of construction to identify the presence of western dog violet along both trail corridors, and staging areas. 2. If any western dog violet plants are observed within areas proposed for ground disturbance, they shall be marked with pin flags and surveyed to determine if any silverspot butterfly eggs, larva or pupa are attached to the plants. If any of these life stages of the butterfly are observed attached to the plants, the plants shall be avoided until the pupa has metamorphosized into adult butterflies and are no longer attached to the host plants. <p>If avoidance of host plants is not considered possible, a qualified botanist shall be consulted to prepare a translocation plan to transplant the plants, once any pre-adult life stages of the butterfly are determined not to be present, to a suitable location on the project site. The plan shall contain, at a minimum, the following: (a) goals and objectives of the transplantation; (b) methods of collection and transplantation; (c) location of the area(s) on site in which the plants will be transplanted; (d) monitoring methods and timing; (e) success criteria; and (f) measures to be taken in the event that the transplantation is not successful. In addition, the plan shall be approved by the County and by the USFWS since this butterfly species is federally-listed as endangered.</p> <p>BIO- 11 Special-Status Plants. To avoid/minimize direct and indirect impacts to special-status plant populations within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:</p>	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<ol style="list-style-type: none"> 1. Prior to construction of the trails, a qualified botanist shall conduct surveys during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. Special-status plant populations identified during the pre-construction survey shall be mapped using a hand-held GPS unit and the final trail design shall be modified, where possible, to avoid these plant populations. Plant populations including a 10-foot buffer shall be temporarily fenced during construction activities with high-visibility fencing or prominently flagged. If complete avoidance of populations is infeasible, further measures, as described below, shall be necessary. 2. If avoidance of special-status plant species is not feasible, and to mitigate for 0.27 acres of occupied congested-headed hayfield tarplant habitat within areas of proposed disturbance, prior to ground disturbance, a Rare Plant Salvage and Translocation Plan shall be prepared by a qualified botanist and approved by the County prior to implementation. Because congested-headed hayfield tarplants are an annual species that reproduce from seed on an annual basis, recommended salvage methods include seed collection and/or top soil salvage. The Rare Plant Salvage and Translocation Plan shall include, at a minimum, the following: <ol style="list-style-type: none"> a) Identification of occupied habitat to be preserved and removed; b) Identification of on-site or off-site preservation, restoration, or enhancement locations; c) Methods for preservation, restoration, enhancement, and/or translocation; d) Goals and objectives; e) Replacement ratio and success standard of 1:1 for impacted to established acreage; f) A monitoring program to ensure mitigation success; g) Adaptive management and remedial measures in the events that the performance standards are not achieved; and h) Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity. <p>If any other special-status plant species are located on the project site (as a result of additional plant surveys that may be conducted) in areas to be disturbed by the proposed project, a similar salvage and translocation plan shall be developed and implemented by a qualified botanist. However, if golden larkspur and/or two-fork clover, both federally-listed endangered species, are observed on the site during any future</p> 	

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>3.4-2 The proposed project could have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p>	<p>pre-construction surveys and are within areas to be disturbed, consultation with the USFWS may be required before any transplantation could occur.</p> <p>BIO-12 Arroyo Willow Riparian Habitat, Slough Sedge Sward, Purple Needlegrass, and Pickleweed Communities.</p> <ol style="list-style-type: none"> 1. The proposed trails and bridge crossings shall avoid all mapped riparian vegetation along the two on-site drainages. No ground disturbance activities shall occur within 100 feet of riparian habitat. Drainage crossings shall be elevated such that no riparian vegetation will be removed or disturbed. Prior to the initiation of ground disturbance activities upslope and within 100 feet of riparian habitat areas, sediment and erosion control measures shall be utilized that can include, but are not limited to, biodegradable straw wattles free from weed seed, silt fencing, hydroseeding, or biodegradable erosion control mats/blankets. 2. If riparian vegetation removal and/or disturbance to the bed, bank, or channel of the central drainage is necessary in order to install the drainage crossing, a Streambed Alteration Agreement (SAA), pursuant to Section 1602 of the California Fish and Game Code, shall be procured from the California Department of Fish and Wildlife (CDFW) prior to any disturbances to these areas. As part of the SAA, compensatory mitigation may be required to offset the loss of riparian habitat. If so, a mitigation plan shall be drafted by a qualified biologist to address implementation and monitoring requirements under the SAA to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, performance criteria, monitoring methods, and actions to be taken in the event that the mitigation is not successful. The plan shall be approved by the County, the District, and CDFW and compensatory mitigation shall take place either on site or at an appropriate off-site location as approved by the CDFW and the County at a ratio directed by the SAA. 3. A pre-construction survey shall be completed prior to the onset of construction to identify and quantify the number of slough sedge swards or purple needlegrass plants along or immediately adjacent to the proposed trail corridors that could be potentially removed or disturbed. If removal or disturbance of any of these plant communities would occur, a qualified botanist shall prepare a propagation and planting plan to offset the loss of any vegetation/plants to be 	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>removed or disturbed. The plan shall contain, at a minimum the following components: (a) goals and objectives; (b) a description of the extent of plants/vegetation to be removed or disturbed; (c) plant collection, propagation, and planting methods; (d) locations on the project site in which the plants will be transplanted; (e) monitoring methods, timing, and performance criteria; (f) measures to be taken in the event that the propagation and planting is not successful; and (g) reporting requirements. The plan shall be approved by the County. Propagation and planting outside of the trail corridor(s) shall occur on a 1:1 basis to ensure no net loss of these sensitive natural communities.</p> <p>4. The final installation/placement of the Estero access trail (East Trail) shall be determined by the County Regional Parks Department in coordination with a qualified biologist to avoid/minimize the placement of the matting over patches of pickleweed vegetation. Prior to installation, appropriate signage shall be placed at the beginning of the access trail and at appropriate locations along the trail prohibiting off trail use beyond the mudflat areas adjacent to the trail. The signage shall also include information on the sensitivity of pickleweed and marsh habitat areas and their ecological and biological value.</p> <p>5. Implement Mitigation Measures BIO-1 and BIO-2.</p>	
<p>3.4-3 The proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	<p>BIO-13 Wetlands.</p> <p>1. The proposed trails and bridge crossings shall avoid all mapped jurisdictional wetland areas and waters of the U.S. Drainage crossings shall be elevated such that no wetland vegetation shall be removed or disturbed and no removal or fill of jurisdictional areas shall occur. Prior to the initiation of ground disturbance activities upslope and within 100 feet of wetland habitat areas, sediment and erosion control measures shall be utilized that can include, but are not limited to, biodegradable straw wattles free from weed seed, silt fencing, hydroseeding, or biodegradable erosion control mats/blankets.</p> <p>2. If wetland areas or other waters of the U.S. under the jurisdiction of the ACOE shall be removed or filled in order to install drainage crossings, an individual or Nationwide permit from the ACOE shall be obtained prior to any ground disturbance that could result in fill or removal of wetlands or waters of the U.S. As part of the ACOE permit, compensatory mitigation may be required, at a ratio to be determined by the ACOE, to offset the loss of wetland/waters habitat. If so, and as part of the permit application process, a mitigation and monitoring plan (MMP) shall be drafted by a qualified</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>biologist to address implementation and monitoring requirements under the permit to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, monitoring methods and performance criteria, extent of monitoring to be conducted, actions to be taken in the event that the mitigation is not successful, and reporting requirements. The plan shall be approved by the County, District, and ACOE and compensatory mitigation shall take place either on site or at an appropriate off-site location as approved by the ACOE and the County. Concurrent with the 404 permit, that County shall also obtain a Water Quality Certification from the RWQCB, subject to the same mitigation plan requirements stated above.</p> <p>3. Implement Mitigation Measures BIO-1 and BIO-2.</p>	
<p>3.4-4 The proposed project could interfere with the movement of 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.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.4-5 The proposed project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.4-6 The proposed project could contribute to the cumulative loss of protected species and/or their habitats within Sonoma County.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p><i>3.5 Cultural Resources</i></p>		
<p>3.5-1 Implementation of the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.</p>	<p>CUL-1 Discovery of Archaeological Resources. All construction crews shall be alerted to the potential to encounter archaeological material. This may be implemented through a pre-construction meeting attended by a qualified archaeologist, as part of a Worker Environmental Awareness Program (WEAP), and/or providing appropriate cultural resources training handouts to personnel prior to initiating work. In the event that cultural resources (sites, features, artifacts, or fossilized material) are exposed during construction activities, all</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>construction work occurring within 100 feet of the find shall immediately stop until a qualified archeologist, meeting the Secretary of the Interior’s Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archeologist may simply record the find and allow work to continue. Prior to any potentially destructive evaluation efforts such as excavation, the feasibility of resource avoidance should be first considered and discussed with the County. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.</p>	
<p>3.5-2 Implementation of the proposed project could disturb human remains, including those interred outside of formal cemeteries.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.5-3 Implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, or a resource determined by the lead agency to be significant.</p>	<p>CUL-2 Tribal Cultural Resources. Should a potential tribal cultural resource (TCR) be inadvertently encountered, construction activities near the encounter shall be temporarily halted and the County notified. The County shall notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in mitigation measure CUL-2. If the County determines that the potential resource appears to be a TCR, any affected tribe shall be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered tribal cultural resources. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archeologist may be required. Implementation of proposed recommendations shall be made based on the determination of the County that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements.</p>	<p>LTS</p>
<p>3.5-4 The proposed project could contribute to cumulative losses of prehistoric and historic-period resources, human remains, and tribal cultural resources within Sonoma County.</p>	<p>CUL-3 Implement CUL-1 and CUL-2 (see above)</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<i>3.6 Geology and Soils</i>		
<p>3.6-1 Implementation of the proposed project would not directly or indirectly cause 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.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.6-2 Implementation of the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.6-3 Implementation of the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.6-4 Implementation of the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.6-5 Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.6-6 The proposed project would not 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</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.		
3.6-7 The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	No mitigation measures are required.	LTS
3.6-8 The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	No mitigation measures are required.	NI
3.6-9 The proposed project would not contribute to cumulatively significant impacts related to geology and soils. The project's contribution to an existing significant impact would not be considerable.	No mitigation measures are required.	LTS
<i>3.7 Greenhouse Gas Emissions</i>		
3.7-1 Implementation of the proposed project may generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	No mitigation measures are required.	LTS
3.7-2 Implementation of the proposed project may conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No mitigation measures are required.	LTS
3.7-2 The proposed project could contribute to cumulative GHG emissions within the region. The project's contribution would not be considerable.	No mitigation measures are required.	LTS

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<i>3.8 Hydrology and Water Quality</i>		
3.8-1 Implementation of the proposed project could violate water quality standards or waste discharge requirements or substantially degrade surface water quality.	No mitigation measures are required.	LTS
3.8-2 Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	No mitigation measures are required.	LTS
3.8-3 Implementation of the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces resulting in substantial erosion, flooding, exceed the capacity of stormwater drainage systems, or redirect flood flows.	No mitigation measures are required.	LTS
3.8-4 Implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	No mitigation measures are required.	LTS
3.8-5 Implementation of the proposed project would not result in a cumulative contribution related to impacts to hydrology and water quality.	No mitigation measures are required.	LTS
<i>3.9 Land Use and Planning</i>		
3.9-1 Implementation of the proposed project would not divide an existing established community.	No mitigation measures are required.	NI

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>3.9-2 Implementation of the proposed project would not cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<i>3.10 Noise</i>		
<p>3.10-1 The proposed project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of County standards.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.10-2 The proposed project would not contribute to cumulative impacts with respect to noise. The project's contribution would not be considerable.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<i>3.11 Public Services and Safety</i>		
<p>3.11-1 Implementation of the proposed project would not result in substantial adverse physical impacts associated with the need for new or physically altered fire protection or law enforcement facilities in order to maintain acceptable service ratios and response times.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.11-2 The proposed project, when combined with other cumulative development, would not result in the cumulative contribution to any existing impacts associated with the provision of new or physically altered fire protection or law enforcement facilities in order to maintain acceptable service ratios and response times. The project's contribution would not be considerable.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<i>3.12 Recreation</i>		
3.12-1 The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	No mitigation measures are required.	LTS
3.12-2 The proposed project would not include recreational facilities which might have an adverse physical effect on the environment.	No mitigation measures are required.	LTS
3.12-3 The proposed project would not contribute to cumulative impacts related to recreational resources. The project's contribution would not be considerable.	No mitigation measures are required.	LTS
<i>3.13 Transportation and Circulation</i>		
3.13-1 Implementation of the proposed project under Existing Plus Project conditions could degrade intersection operations that exceed Caltrans' acceptable level of service D or better.	TRAF-1 Construction Activities. During project construction activities, the County shall obtain an encroachment permit from Caltrans, if required, and implement all measures in the permit. In addition, the County shall provide appropriate flagging operations for larger construction vehicles entering or exiting the project site, and/or limiting construction access to off-peak periods to the acceptance of Caltrans.	LTS
3.13-2 Implementation of the proposed project could add traffic (including construction traffic) to an existing unsignalized intersection approach that may not have adequate sight lines based upon Caltrans criteria for state highway intersections.	No mitigation measures are required.	LTS

**Table ES-1
Summary of Potential Environmental Impacts**

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>3.13-3 Implementation of the proposed project could result in the addition of project traffic that causes an intersection or driveway access to meet or exceed criteria for provision of a right or left turn lane on an intersection or driveway approach.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.13-4 Implementation of the proposed project could result in inadequate emergency access.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.13-5 Implementation of the proposed project could conflict with a program, plan, ordinance or policy that addresses transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.13-6 Under Cumulative plus Project conditions the proposed project could degrade intersection operations that exceed Caltrans acceptable level of service C or better.</p>	<p>No mitigation measures are required.</p>	<p>LTS</p>
<p>3.13-7 Under cumulative plus project conditions the addition of project traffic could cause an intersection or driveway access to meet or exceed criteria for provision of a right or left turn lane on an intersection or driveway approach.</p>	<p>No mitigation measures are available.</p>	<p>SU</p>

LTS=Less than significant, NI= No impact, S= Significant, PS=Potentially significant, SU= Significant and unavoidable

Analysis of Alternatives

Alternatives Analyzed

Four alternatives to the proposed project, including the No Project Alternative, were analyzed in Chapter 5, Alternatives. The No Project Alternative is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines that examines the environmental effects that would occur if the project were not to proceed. The other alternatives are discussed as part of the “range of reasonable alternatives” selected by the County. The alternatives addressed in Chapter 5 are described below.

No Project Alternative (Alternative 1)

The No Project Alternative considers the effects of foregoing the project entirely and leaving the project site in its current condition. Under the No Project Alternative, no trails or staging/parking areas would be constructed on the project site. The project site would continue to operate in its existing capacity as a cattle ranch with no change to the existing uses.

This alternative would not meet any of the project objectives because it would not provide public access consistent with the terms of the Trail Easement and Conservancy Agreement or allow the public the enjoyment and appreciation of the natural, cultural and scenic resources present in this area.

Docent-Only Alternative (Alternative 2)

The Docent-Only Alternative would only allow public access to the trails with a docent present. The availability of a docent would be provided on a request or reservation basis monitored by the County’s Regional Parks Department staff. Only the northern staging would be constructed and public access to the Estero would be limited to pedestrians only; no boat access would be permitted under this alternative. The gate would remain closed and locked to public access unless a tour has been arranged with a docent.

Eliminate Estero Access Alternative (Alternative 3)

The Eliminate Estero Access Alternative would remove only the portion of the East Trail that allows access to the Estero. The portion of the East Trail that provides a loop in the eastern portion of the site would remain along with the staging area located south of the existing barn. Under this alternative no pedestrian or boat access to the Estero would be permitted.

Eliminate East Trail Alternative (Alternative 4)

Under Alternative 4, the entire East Trail would be eliminated along with the southern staging area. Only the West Trail and associated staging area would be constructed to provide public access to the site. Under this alternative there would be no pedestrian or boat access to the Estero.

Environmentally Superior Alternative

The No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Eliminate East Trail Alternative, since it would reduce impacts to biological, cultural and traffic, when compared to the proposed project.

The Eliminate East Trail Alternative would meet most, but not all of the project objectives. This alternative would not meet the first objective of providing low-intensity public outdoor recreational and educational purposes in accordance with the District's Grant Agreement with the California Coastal Conservancy.

Areas of Controversy

Section 15123 (b)(2) of the CEQA Guidelines requires the Executive Summary of an EIR to disclose areas of controversy known to the lead agency that have been raised by the agencies and the public. The County circulated a Notice of Preparation (NOP) to solicit agency and public comments on the scope and environmental analysis to be included in the EIR. Copies of the NOP and the NOP comment letters received by the County are included in Appendix A to this EIR. The following issues were raised in the written responses to the NOP:

- Potential damage to adjacent agricultural properties and cattle from trespassing, unleashed dogs, and potential risks to hikers from close proximity to cattle.
- Introduction of noxious, invasive, and non-native plants and diseases that would jeopardize crops and cattle.
- Increased risk of fire hazards, especially grass fires due to illegal campfires and smoking associated with increased human and vehicle presence.
- Increase in litter to occur.
- Increase in dust and need for dust control.
- Land use compatibility within an active cattle ranch.

- Concerns regarding ground nesting, burrowing, and foraging bird species and potential interruption to established nesting and foraging patterns.
- Concerns regarding riparian flow patterns upstream of bridges, trestles, culverts, and other structures and discharges or deposits into the Estero Americano that could cause harm.
- Potential impacts to the Estero Americano and sensitive plant and riparian habitat from boat access and people accessing the area.
- Adequate response time in the event of an emergency.
- Vehicle turning movements, existing driveway capacity and staging/parking area in relation to SR 1.
- Unsafe conditions for vehicle access from SR 1 and request for a dedicated turn lane.

Issues to Be Resolved By Lead Agency

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved. With respect to the proposed project, the key issues to be resolved include decisions by the County, as lead agency, as to:

- Whether this environmental document adequately describes the environmental impacts of the proposed project.
- Whether the recommended mitigation measures should be modified and/or adopted.
- Whether there are other mitigation measures or alternatives that should be considered for the proposed project besides those identified in the Draft EIR.

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CHAPTER 1 INTRODUCTION

Purpose of This Environmental Impact Report

This Environmental Impact Report (EIR) assesses the potentially significant environmental effects of the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). The California Environmental Quality Act (CEQA) requires that before a governmental agency can make a decision to approve a project with potentially significant environmental effects, it must prepare an EIR that fully describes the environmental effects of the project. This EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of a proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. The information contained in the EIR is reviewed and considered by the governing agency prior to the ultimate decision to approve, disapprove, or modify the proposed project.

CEQA requires that the Lead Agency—the County of Sonoma (County)—shall neither approve nor implement a project as proposed unless the project’s significant environmental effects have been reduced to a less-than-significant level, essentially “eliminating, avoiding, or substantially lessening” the expected impact. If the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, the Agency must adopt a Statement of Overriding Considerations that articulates the reasons for its action in writing. This “Statement of Overriding Considerations” must be included in the record of project approval.

An EIR is intended to implement the basic purposes of CEQA and provide decision makers and the public with the information required by the CEQA statutes and Guidelines to fulfill these objectives. According to Section 15002(a) of the CEQA Guidelines, the purposes of CEQA are to:

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Environmental Review Process

Notice of Preparation and Responses

On November 20, 2017, the County sent a Notice of Preparation (NOP) to governmental agencies, environmental groups, organizations, and other individuals and groups interested in the project. The NOP requested those agencies with regulatory authority over any aspect of the project to describe that authority and to identify the relevant environmental issues that should be addressed in the EIR. The 30-day public review period ended on December 20, 2017. A copy of the NOP is included as Appendix A.

A public scoping meeting was held by the County on Wednesday, December 13, 2017. The purpose of this meeting was to provide the public and governmental agencies with information on the proposed project and the CEQA process and to give attendees an opportunity to identify environmental issues that should be considered in the EIR. Attendees were invited to mail or email their comment letters to the County during the 30-day NOP public review period by no later than 5:00 p.m. on December 20, 2017.

A total of 10 letters and emails were received during the public review period. Copies of the NOP and the NOP comment letters received by the County are included in Appendix A. The following is a list of those respondents who submitted written comments:

- Caltrans, District 4
- Coastal Conservancy
- Sonoma County Farm Bureau
- U.S. Department of Commerce National Oceanic and Atmospheric Administration
National Ocean Service, Greater Farallones National Marine Sanctuary (GFNMS)
- Cindy Eggen
- John and Denny Tibbetts
- Denny Tibbetts
- Susan Kirks
- Rebecca Spaletta – Ahlers
- Andrea K. Liesy, Remy, Moose and Manley

Comments received in response to the NOP were used to determine the scope of this Draft EIR. The following issues were raised in the written responses to the NOP:

- Proximity of active agricultural uses and proposed recreational uses, including potential damage to the environment, infrastructure and livestock due to an increase in public access;
- Potential for public trespassing to occur on surrounding private property;
- Potential introduction of diseases and non-native species to agricultural lands;
- Concerns regarding air quality impacts from construction and maintenance activities, cumulative air quality impacts, and fugitive dust control;
- Adequacy of biological surveys and timing of botanical surveys;
- Potential impacts to wetlands, riparian habitat, streams, and/or loss of wetlands;
- Concerns over proposed trail alignment with regards to documented avian species of special concern, particularly ground nesting, burrowing, and foraging species;
- Potential impacts of trail construction and subsequent human encroachment on nesting and foraging and disturbance to species including Burrowing owl and American badger;
- Location of trail signage on riparian or wetland habitat;
- Native American consultation with tribes, groups, and individuals interested in the project area;
- Request for hydrological studies to study whether project level activities would affect riparian flow patterns upstream of bridges, trestles, culverts, or other structures;
- Concerns regarding the remote location and the extended response time for emergency services, particularly for fire and sheriff departments;
- Increase in vehicle and foot traffic including project related trip generation, distribution, turning movements, storage capacity within the project vicinity, as well as the existing driveway capacity and staging area in relation to State Route 1; and
- Request for Transportation Demand Management measures for the project.

Public Review of the Draft EIR

The Draft EIR is subject to a minimum 45-day public review period by responsible agencies and interested parties. In accordance with Section 15087 of the CEQA Guidelines, the County published a notice of availability of the Draft EIR and concurrently sent a notice of completion to the California Office of Planning and Research (OPR) to start the 45-day public review period. Agencies and the public may comment on the adequacy of the Draft EIR and the lead agency's compliance with CEQA either in writing submitted to the County, as Lead Agency, prior to the end of the public review period, or through oral testimony at a public hearing on the Draft EIR.

Final EIR

Following the close of the public review and comment period, written responses will be prepared that address all substantive comments received on the Draft EIR. The Final EIR will consist of the Draft EIR, the comments received during the public review period, written responses to the comments, and any revisions to the Draft EIR made as a result of public agency and public comments. The Final EIR must be certified by the County before it can be used as the basis for decision-making.

EIR Adequacy

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines, which states the following:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

Intended Uses of the EIR

This EIR has been prepared by the County of Sonoma as Lead Agency in accordance with CEQA and applicable federal and state environmental regulations, policies, and laws. This EIR provides the CEQA compliance documentation upon which the County's consideration of, and action on, all applicable land use permits and other approvals (collectively, "approvals") shall be based. These include without limitation all those approvals set forth in this EIR, as well as any additional approvals necessary or useful to such planning, construction, operation, and maintenance (e.g., any use permits, grading permits, and other development-related approvals). The Sonoma County Agricultural Preservation and Open Space District is a Responsible Agency in accordance with CEQA and has reviewed this EIR with respect to the Trail Easement and Conservation Easement.

Scope of the EIR

This EIR has been prepared in compliance with CEQA (California Public Resources Code Section 21000 et seq.) and the procedures for implementation of CEQA set forth in the CEQA Guidelines (14 CCR 15000 et seq.).

According to CEQA Guidelines Section 15161, an EIR should focus primarily on the changes in the environment that would result from implementation of the proposed project. This EIR evaluates the potential environmental impacts that may occur from construction and operation of the proposed project, including direct, indirect, cumulative, and growth-inducing impacts. Based on a review of the project and comments received during the NOP public review period, the County determined that an EIR should be prepared that addresses the following technical issue areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services and Safety
- Recreation
- Transportation and Circulation

This EIR evaluates the direct impacts, reasonably foreseeable indirect impacts, and cumulative impacts resulting from planning, construction, and operation of the proposed project using the most current information available and in accordance with the provisions set forth in CEQA and the CEQA Guidelines. In addition, the EIR recommends potentially feasible mitigation measures, where possible, and project alternatives that would reduce or eliminate significant adverse environmental effects.

The alternatives chapter of the EIR (Chapter 5, Project Alternatives) was prepared in accordance with Section 15126.6 of the CEQA Guidelines. CEQA requires that the lead agency

adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where significant environmental impacts will not occur.

The EIR evaluates the following alternatives to the proposed project:

- **Alternative 1: No Project/No Build Alternative.** This alternative assumes no development would occur, and the site would remain in its current condition.
- **Alternative 2: Docent-Only Alternative.** This alternative would only permit public access to the trails with a docent present. Only docent supervised access would be allowed. Access to the Estero Americano would be allowed for pedestrians only; no boat access would be permitted under this alternative.
- **Alternative 3: Eliminate Estero Access Alternative.** This alternative proposes to eliminate the portion of the East Trail that provides access to the Estero Americano, but the portion of the East Trail in the eastern portion of the site and the staging area would remain.
- **Alternative 4: Eliminate East Trail Alternative.** This alternative would eliminate construction of the East Trail and the staging area located near the existing barn. Only the West Trail would be developed under this alternative.

Document Organization

This EIR is organized to provide a comprehensive analysis of the significant potential environmental impacts, mitigation measures, and alternatives for the proposed project as follows:

- **Executive Summary.** Summarizes the proposed project, environmental impacts that would result from implementation of the proposed project, recommended mitigation measures that would avoid or reduce impacts, and the level of significance of impacts both before and after mitigation.
- **Chapter 1, Introduction.** Provides an introduction and overview describing the purpose and intended use of the EIR, the EIR's compliance with CEQA, and the scope and organizational format of the EIR.
- **Chapter 2, Project Description.** Provides a detailed description of the proposed project, including its geographical setting, project objectives, project components, and construction. This section also provides background on the proposed project and describes the environmental setting, providing a description of the physical environmental conditions in the vicinity of the proposed project, as they existed at the time the NOP was published, which constitute the baseline physical conditions by which the significance of potential impacts would be assessed. This section also includes a list

of discretionary actions that would be required by the Lead Agency and responsible agencies for the proposed project.

- **Chapter 3, Environmental Analysis.** Describes the baseline environmental setting and provides an assessment of potential project impacts for each technical issue area presented. Each section is divided into four sub-sections: Introduction, Environmental Setting, Regulatory Setting, and Impacts and Mitigation Measures (project-specific and cumulative).
- **Chapter 4, Other CEQA Considerations.** Provides discussions required by Sections 15126 and 15128 of the CEQA Guidelines, including effects found not to be significant during the EIR process, growth-inducing impacts of the proposed project, significant environmental effects that cannot be avoided if the proposed project is implemented, and significant irreversible environmental changes that would result from implementation of the proposed project.
- **Chapter 5, Alternatives.** Describes alternatives to the proposed project that would avoid or substantially lessen significant effects and evaluates their environmental effects in comparison to the proposed project.
- **Chapter 6, List of Preparers.** Provides a list of the EIR preparers.

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CHAPTER 2 PROJECT DESCRIPTION

Introduction

The County of Sonoma (County) is the lead agency under the California Environmental Quality Act (CEQA) to prepare the Environmental Impact Report (EIR) for the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). The Sonoma County Agricultural Preservation and Open Space District (District) is a Responsible Agency as it holds the Conservation Easement over the Bordessa Ranch property, and is the current holder of the Trail Easement for the purposes of designating the Trail Corridors and Staging Areas. The District proposes to transfer the Trail Easement to the County for construction, future operation, and maintenance of the trails and staging (parking) areas. The County's Regional Parks Department (Regional Parks) has received grant funds from the State Coastal Conservancy and additional funding from the District towards completion of the Estero Trail Plan. Transfer of the Trail Easement from the District to the County is currently pending and anticipated to be finalized and recorded after the CEQA review is completed.

Project Site

Location and Surrounding Land Uses

The proposed project site is located in the western portion of unincorporated Sonoma County, just north of Marin County and west of the cities of Santa Rosa, Sebastopol, and Rohnert Park (Figure 2-1, Regional Location). The project site¹ is located on the approximately 500-acre Bordessa Ranch property, at 17000 Valley Ford Cutoff (Assessor's Parcel no. 026-030-011), approximately one mile south of Bodega, and approximately 2.5 miles west of Valley Ford (Figure 2-2, Project Site). The Bordessa Ranch property is bordered by State Route 1 (SR 1) on the north and extends to the Estero Americano (Estero) on its south, encompassing rolling hills and two prominent knolls. Existing adjacent land uses are mostly rural agricultural with the Sonoma Coast Villa Resort & Spa located across SR 1 generally north of the site.

The Estero is a scenic and biologically rich coastal estuary along the boundary of Sonoma and Marin counties. The Estero is part of the Gulf of the Farallones National Marine Sanctuary, part of the California Marine Protected Area network, and designated as a State Marine Recreational Management Area. It is also designated as critical habitat for steelhead trout by the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service, and is identified by the California Department of Fish and Wildlife (CDFW) as containing some of the most significant

¹ References to project site refer to the portion of the Bordessa Ranch property that is within the designated Trail Easement.

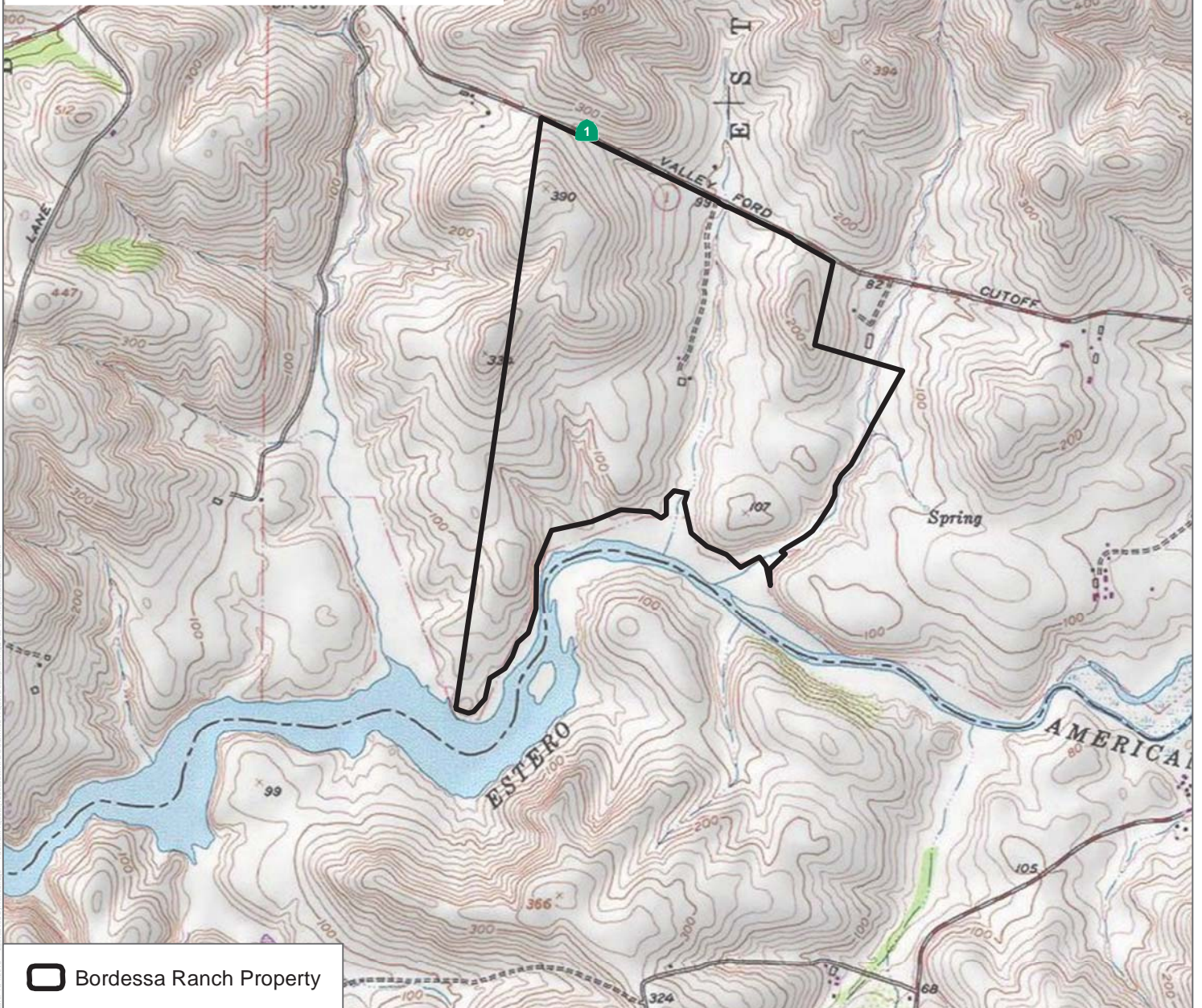
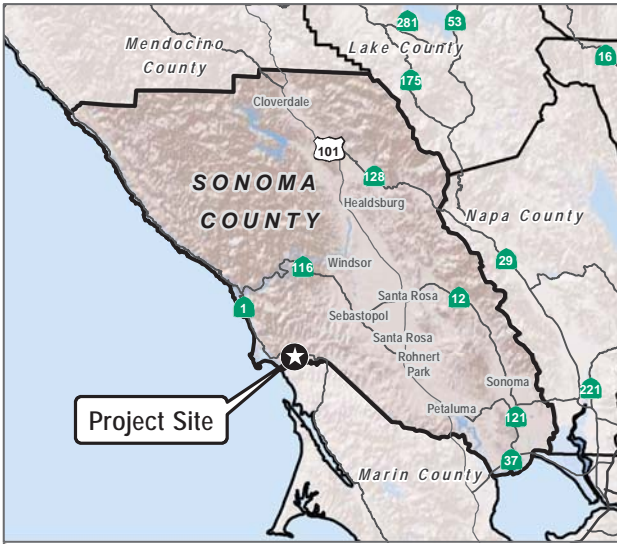
habitat areas in the State, including mudflats, seasonal brackish marsh, and freshwater marsh within the estuary that provide seasonally important foraging habitat for migratory waterfowl and shorebirds, and resident long-legged wading birds. It is currently listed as an impaired water body by the State Water Resources Control Board due to historic land uses.

Project Background

In 2012, the District purchased a conservation easement (Conservation Easement) and trail easement (Trail Easement) over property owned by Alfred and Joseph Bordessa (Bordessa Ranch). The purpose of the Conservation Easement is to preserve and protect the conservation values of the property, as described in the recorded Conservation Easement, including natural resources, habitat connectivity, open space and scenic views, agricultural resources, and recreation and education. The Conservation Easement covers the entire property and also designates a 138-acre area as “Forever Wild” and two riparian corridors as “Natural Areas”.² The Forever Wild area includes sensitive habitat for American badger and burrowing owls and short-eared owls, and the goal is to protect this habitat in perpetuity from potential disturbances caused by improperly managed grazing, recreation activities, and future buildings. To ensure this area is protected from potential disturbances, the Conservation Easement expressly requires the Bordessa Ranch landowners to prepare a rangeland management plan (RMP) that integrates natural resources protection goals for cattle grazing on the entire project site. The RMP would be prepared in consultation with a certified rangeland manager, the District, and State Coastal Conservancy staff and would govern the landowners’ management of the property. In addition, no buildings, staging areas or trails would be allowed within this area and signage providing information about sensitive plant and wildlife species would state no access is permitted within this area, except within a limited area designated as “Trail Corridor within Forever Wild or Natural Areas” (see discussion below under Trail Amenities and Signage).

The purpose of the Trail Easement is to ensure that trails and associated staging areas are established and made available to the public in perpetuity for low-intensity public outdoor recreational and educational purposes consistent with the purpose of the Conservation Easement to preserve and protect natural resources, habitat connectivity, open space and scenic views, and agricultural resources. Under the terms of the Conservation Easement and Trail Easement, the Conservation Easement takes precedence over the Trail Easement.

² These areas are designated on the project figures as areas where trails are prohibited per the Conservation Easement, with some exceptions noted.



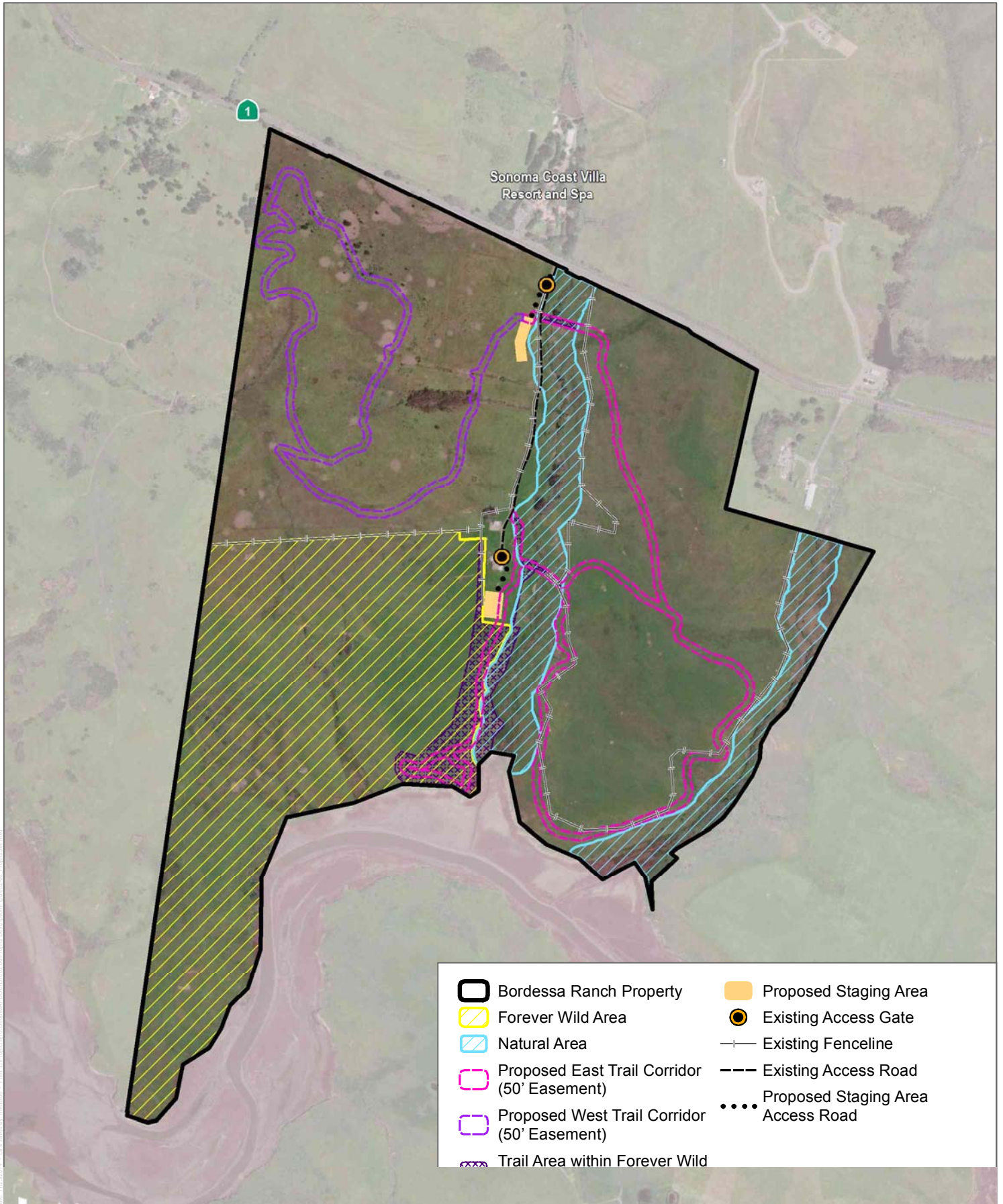
SOURCE: USGS 7.5-Minute Series Valley Ford Quadrangle



FIGURE 2-1
Project Location

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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SOURCE: Bing Maps 2019, Sonoma County 2015

FIGURE 2-2
Project Site Plan

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Permit Sonoma (formally the County's Permit and Resource Management Department) prepared and circulated an Initial Study and a draft Mitigated Negative Declaration (MND) for the proposed project in October 2016. After reviewing the information disclosed by the draft MND document, the Board of Directors of the Sonoma County Agricultural Preservation and Open Space District (District) and the Board of Supervisors of the County of Sonoma directed staff to prepare an EIR for the proposed project to more fully characterize and evaluate potential impacts of the project, including both District designation of the trail corridors and staging areas and County approval and construction and operation of the recreational amenities included as part of the project.

The District is proposing to designate and survey trail corridors and associated staging areas as contemplated by the Trail Easement and consistent with the Conservation Easement. Under the terms of the Trail Easement, the District identified two 50-foot wide trail corridors to be evaluated in the EIR (approximately 30.3 acres) and two staging areas, not to exceed 1.5 acres for a total combined area of approximately 31.8 acres of project area, with approximately 4.8 acres of actual potential disturbance associated with construction of two five-foot wide trails within the designated trail corridors. Improvements to the access road are also evaluated as part of the project. The County will identify the precise locations of the two 5-foot-wide pedestrian-only trails within the 50-foot wide corridors, cumulatively not to exceed 5 miles in length (see Figures 2-3 and 2-4) once the project is approved and the EIR certified.

The project site is located within the California Coastal Commission jurisdiction and is regulated by the California Coastal Act and the Sonoma County Local Coastal Plan. Presently, access to the Estero is available via Valley Ford Estero Road, off of SR 1 for kayakers and other boaters within the County. There is currently no overland (trail) access to the Estero within Sonoma County, other than at the mouth of the Estero.

The Conservation Easement includes areas designated for an Agricultural Building Envelope (ABE) and a Residential Building Envelope (RBE), as shown on Figures 2-3 and 2-4. Within the 2-acre ABE the landowner is allowed to develop agricultural residences including farm worker housing, and farm family housing no larger than 2,000 square feet, barns, corrals, and one lighted horse arena not to exceed 90 feet by 180 feet in size to be used for personal use only. Within the 1-acre RBE the landowner is allowed to develop one primary residence no larger than 3,000 square feet, plus a garage measuring no larger than 1,200 square feet along with any additional accessory structures and improvements including a guest house, shed, swimming pool and other similar improvements. The Trail Easement specifies that the Staging Areas and Trail Corridors shall not be placed within two hundred feet of the RBE. The one exception is a portion of the access road that already existed prior to the Trail Easement and is not subject to this requirement. Future development within either the ABE or RBE would be a separate project initiated by the landowners and is not evaluated in this EIR.

Project Site Characteristics

Existing Uses and On-Site Characteristics

The elevation of the project site ranges from sea level at the Estero to about 400 feet at the highest knoll on the northwestern corner of the site. The topography is characterized as rolling hills with a central valley created by a drainage that drains into the Estero at the southern end of the site. The undeveloped parts of the project site consist of gently to steeply sloped hillsides, with annual grassland, rocky outcrops, stock ponds, springs, and hillside seeps. In addition, a perennial creek and several smaller drainages are located on the property. These drainages, as well as one of the stock ponds, support riparian vegetation and/or eucalyptus groves. The Bordessa Ranch property is currently used as grazing land for cattle and contains a large barn, sheds and outbuildings, a gravel access road, fencing, a concrete water tank, spring boxes and concrete water troughs, and two 2,500-gallon above-ground water tanks. With the exception of the access road, fencing, barn and outbuildings, and water facilities, the remainder of the site is undeveloped.

The Bordessa Ranch property is currently an active cattle ranch. Cattle use the property for breeding and grazing and are present throughout the site. The existing structures on the site including the barn, sheds and outbuildings, concrete water tank and troughs, spring boxes, and above-ground water tanks are not within the boundaries of the proposed project and would not be modified, removed, or altered in any way by project implementation. The County would, however, have to relocate some agricultural fencing or install gates in some locations.

Sonoma County General Plan and Zoning Designations

The project site is located within the coastal zone and designated in the Sonoma County General Plan 2020 and zoning code for Land Extensive Agriculture (Sonoma County 2013). Portions of the site are within the Riparian Corridor (RC) and Scenic Resource (SR) combining districts.

Project Objectives

CEQA requires an EIR to include a statement of objectives for the project, including the underlying purpose of the project. These objectives help the lead agency determine the alternatives to evaluate in the EIR (CEQA Guidelines, Section 15124, subd. (a)). The following is a list of objectives for the proposed project:

- Provide public access to the Trail Corridors and Staging Areas in perpetuity for low-intensity public outdoor recreational and educational purposes in accordance with the District's Grant Agreement with the California Coastal Conservancy, dated May 3, 2012 (Agreement No. 11-063).

- Provide public access within the Trail Easement area consistent with the preservation of natural resources and habitat connectivity; open space and scenic views, and existing agricultural resources.
- Create public access pedestrian-only trails that provide a broad public benefit for all ages and cultures and users of varying abilities.
- Provide pedestrian-only trails to support interactive educational experiences.
- Provide pedestrian-only trails that balance resource protection with high quality public access and maximize sensitive resource protection.
- Design pedestrian-only trails in accordance with appropriate trail standards, including the California Department of Parks and Recreation's Trails Handbook (1991, updated 2019) and Accessibility Guidelines (2015) and the California Department of Conservation and Recreation Trails Guidelines and Best Practices Manual (2010).
- Provide pedestrian-only trails to a unique and inspiring landscape that promote and enhance public enjoyment and appreciation of the natural, cultural, and scenic resources on the property.

Proposed Project

The Trail Easement held by the District allows the District to designate two 5-foot-wide pedestrian-only trails (within the designated 50-foot-wide corridor), up to a cumulative maximum of 5 miles in length, and two associated staging areas (to include trailheads/parking lots), not to exceed 1.5 acres in size in total combined area, to provide for low-intensity public outdoor recreational and educational uses on the property consistent with the underlying Conservation Easement. The Conservation Easement allows non-commercial low-intensity outdoor recreational and environmental education uses, providing these uses do not adversely affect sensitive natural resources or agricultural uses on the property. The Conservation Easement requires a minimum 150-foot setback be provided between the proposed trails and staging areas and the two streams located within the project site, except at two identified trail crossings and associated approaches. The trails are intended to provide public access from SR 1 to scenic vista points and potentially limited public access to the Estero. The purpose of this project is for the District to designate and survey trail corridors and staging areas, and Regional Parks to align and construct trails within the corridors, design and construct staging areas within designated areas, and oversee the operation and maintenance of the trails for use by the public. Timing for full implementation of the project is dependent on Regional Parks obtaining funding for trail development.

As outlined in the Trail Easement, future uses may include hiking, nature study, bird watching, sightseeing, picnicking, outdoor education, docent-led tours, scientific research and observation, and other similar uses. Future uses may also include limited, seasonal walk-in access to the Estero for pedestrians and hand-carried, non-motorized boats, such as kayaks and canoes, if and to the

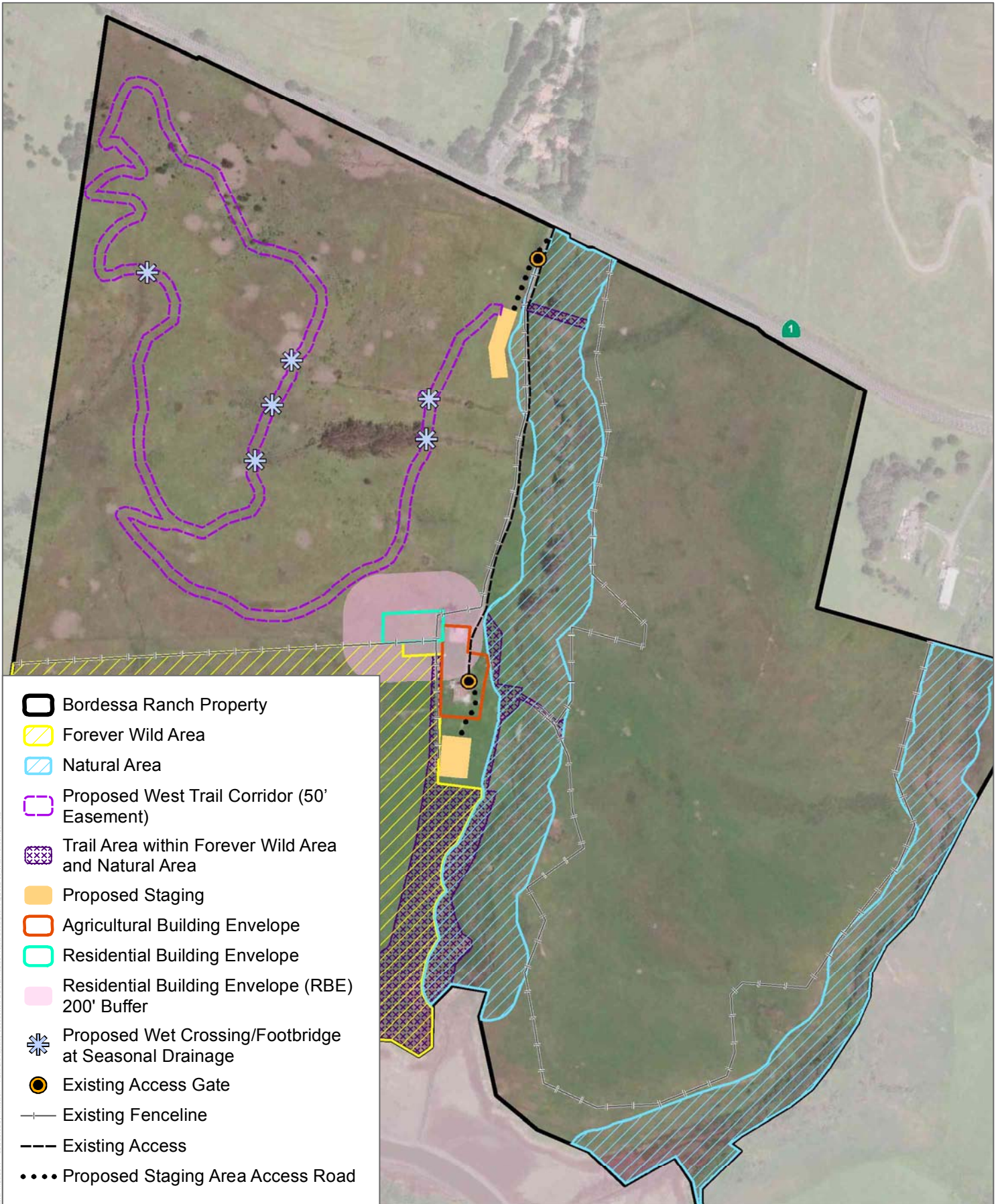
extent the District determines that such access is compatible with sensitive resources associated with the Estero and the property. The County and/or District may place limitations on the nature, hours, and season of public access to the access road, bridge, and access gate, as well as the staging areas and trails, as either deems appropriate for natural resource protection. The County anticipates daily usage would range from an average of five people to up to a maximum of 20 people during holiday weekends. In addition, it is anticipated that people boating along the Estero may stop at the project site to access the restrooms, or hike on the trails before leaving via the Estero. The number of people accessing the trails from the Estero is expected to be minimal.

The proposed trail system would be the only means for providing public access to the project site. A single trail, approximately 5-foot wide would be constructed within each of the two designated trail corridors. The trails would be limited to pedestrian use only (no dogs, bikes, or equestrians would be allowed at any time); would be constructed of compacted native material or other permeable surface; would be designed consistent with the federal Architectural Barriers Act Accessibility Guidelines³ for backcountry trails; and would include wet crossings or wooden footbridges at ephemeral stream crossings (all necessary permits would be acquired before constructing). Trail markers, posts, interpretive signs, and benches would be placed along the trail to assist users. Benches would be constructed of wood and would be compliant with the Architectural Barriers Act. No more than six benches would be provided along the trails. The trail markers provided at the trailheads and at all trail intersections would provide directions and distances (in miles and tenths of a mile) to noteworthy locations along the trails. Trail markers would be constructed of wood or steel and would measure approximately 3-foot tall. An example of types of interpretive signage, trail markers, and benches is included on Figure 2-5.

The project includes a variety of design features including interpretive, wayfinding, monument, display case, and regulatory signage; portable restroom and associated privacy screening; garbage and recycling receptacles; bicycle racks; exclusionary fencing and associated gates; and picnic tables and/or benches. No buildings or structures other than foot bridges and replacement of the existing bridge along on the access road would be constructed as part of the project.

Specific project details and project components include the following.

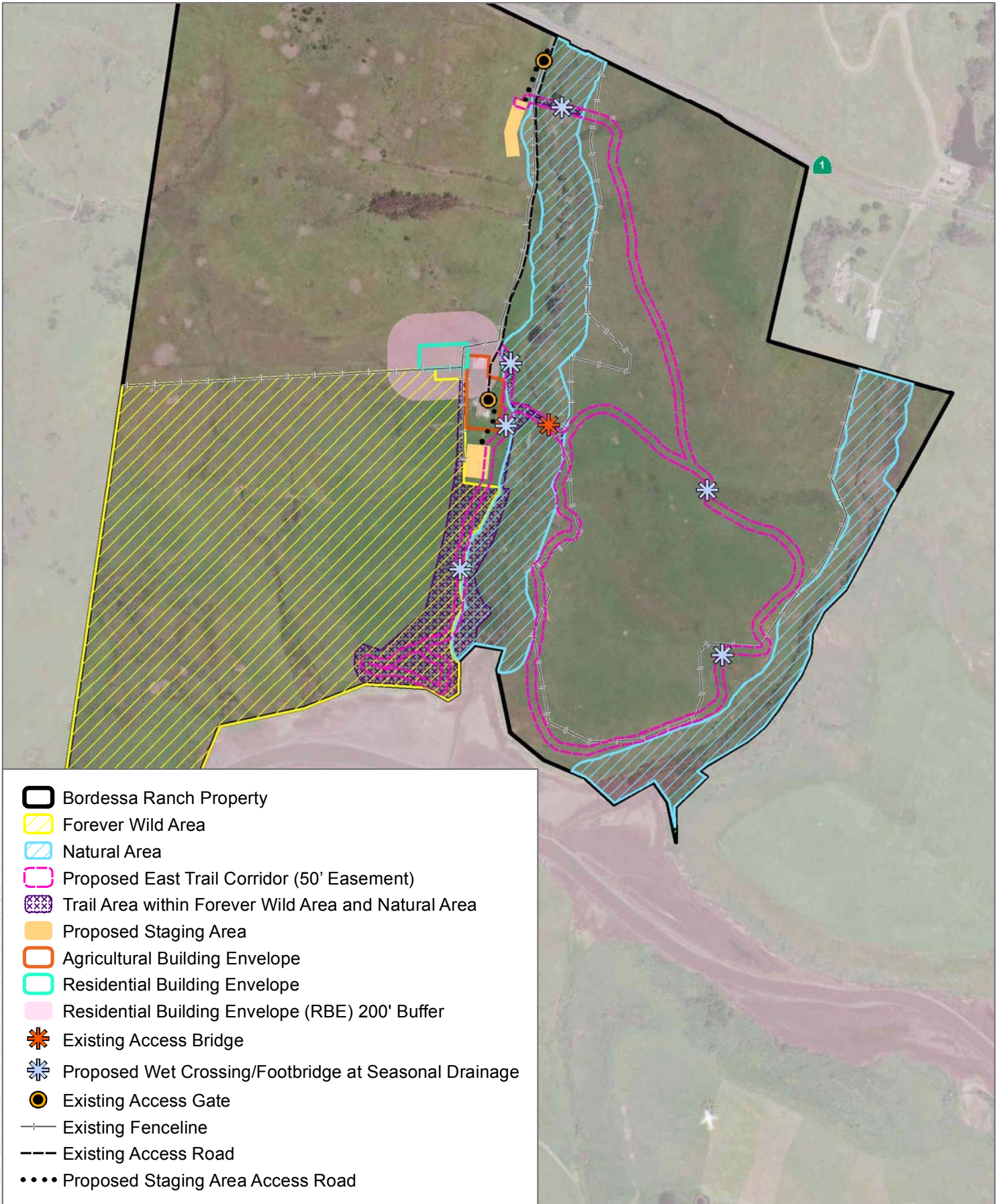
³ The Architectural Barriers Act (ABA) requires facilities constructed or altered by or on behalf of federal agencies to be readily accessible to and usable by individuals with disabilities. The Americans with Disabilities Act (ADA) is modeled on the 1968 ABA and Section 504 of the Rehabilitation Act of 1973.



SOURCE: USDA 2016; Sonoma County 2015

FIGURE 2-3
West Trail Corridor

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-  Bordessa Ranch Property
-  Forever Wild Area
-  Natural Area
-  Proposed East Trail Corridor (50' Easement)
-  Trail Area within Forever Wild Area and Natural Area
-  Proposed Staging Area
-  Agricultural Building Envelope
-  Residential Building Envelope
-  Residential Building Envelope (RBE) 200' Buffer
-  Existing Access Bridge
-  Proposed Wet Crossing/Footbridge at Seasonal Drainage
-  Existing Access Gate
-  Existing Fenceline
-  Existing Access Road
-  Proposed Staging Area Access Road

SOURCE: Bing Maps 2018; Sonoma County 2015

FIGURE 2-4
East Trail Corridor

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Examples of Trail Signage, Interpretive Signage and Entrance Monument



Example of ADA compliant side along bench



Example of ADA compliant bench with arms

FIGURE 2-5

Trail Amenities

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West Trail Corridor

The West Trail corridor would accommodate construction of a 2.01-mile, five-foot-wide trail located on the western side of the central drainage (also referred to as the central creek drainage) that traverses the property. The trail would start at the northern staging area (near the main entrance and SR 1) then would loop around climbing the western knoll to a vista in the northwest corner of the property; it then loops back to descend the western knoll, returning to the start at the northern staging area (see Figure 2-3). The trail would be constructed of native soil which may include drainage and wet crossings (foot bridges); erosion prevention features such as walls, switchbacks, and grade-break swales; interpretive, regulatory and wayfinding signage; exclusionary fencing and associated gates; and benches.

East Trail Corridor

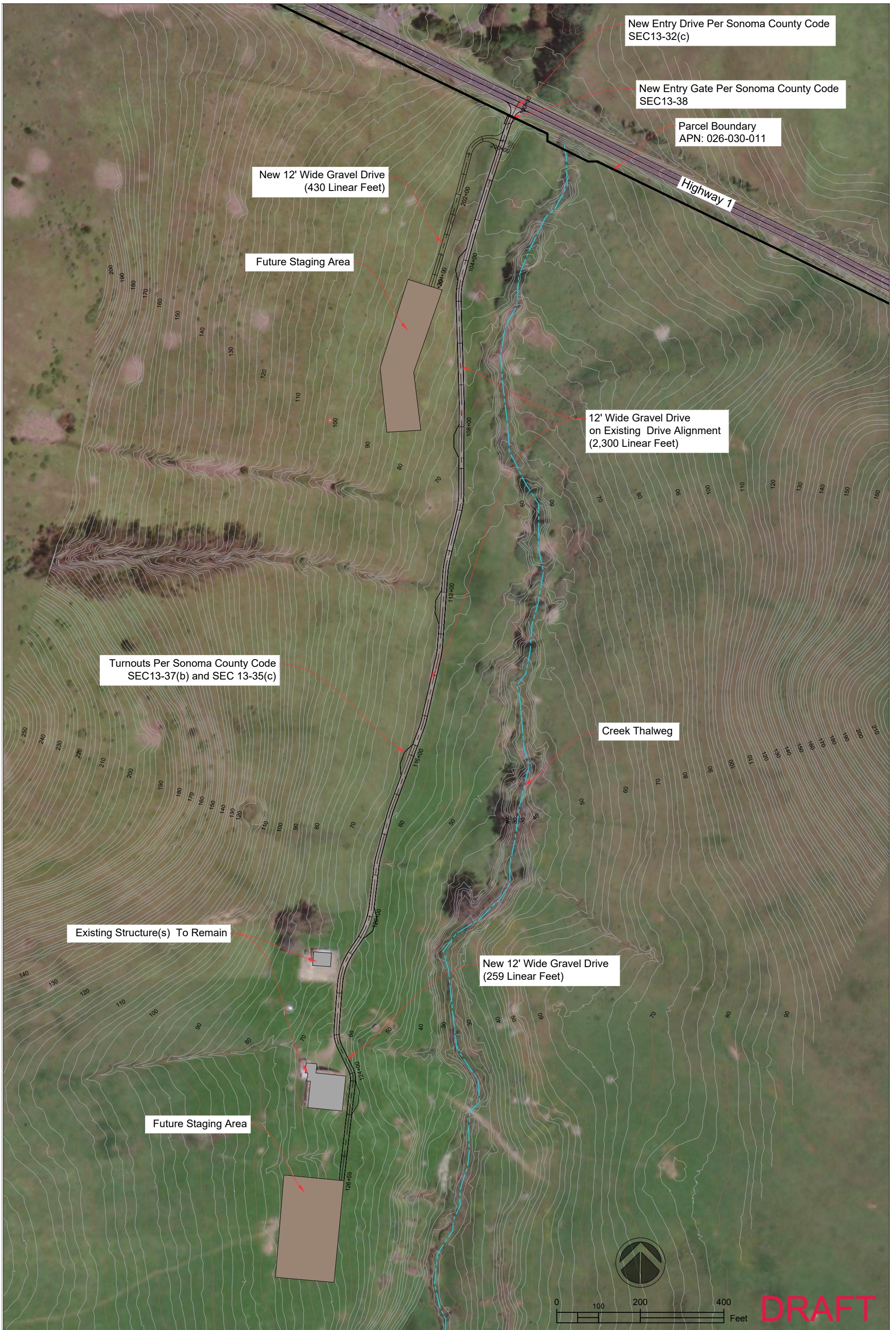
The East Trail would not exceed 2.75 miles in length and could be accessed from either the northern or southern staging areas, as shown on Figure 2-4. From the southern staging area (south of the existing barn), the five-foot wide trail heads south to the Estero, makes a small loop, then runs back up to the southern staging area. From here it runs east, crossing the central creek drainage at the existing foot bridge; it then traverses the bluff following the central creek drainage towards the Estero, and then heads east along the bluff above the Estero and north above the creek on the eastern edge of the property, then looping back to the existing foot bridge across the central creek drainage or up to the northern central creek crossing and west to the northern staging area. The East Trail may also include drainage and wet crossings (foot bridges); erosion prevention features such as walls, switchbacks, and grade-break swales; interpretive, regulatory and wayfinding signage; exclusionary fencing and associated gates; and benches.

Hiker and boater access to the Estero would be via the East Trail and would include signage directing users to specific routes that may change seasonally, and a seasonal trail that would include temporary mesh matting laid down in the mudflats to reduce erosion and turbidity. The County is proposing a roll out surface protection mat that would be approximately five-feet-wide and 400 feet long, that would begin at the bottom of the slope and would cross the mud flats to the main Estero channel. The two systems under consideration include a series of open mesh or grate-like hard plastic panels (GeoSystems GeoRunner or Geoterra) that snap together and secure with clips as well as anchors that secure the mat to the soil surface. Both designs would allow sunlight to penetrate the ground, allowing vegetation to grow, and would enable the system to be removed before large storm events.

Site Access

Existing access to the property is via an unimproved gravel access road off SR 1 that allows access to the site. A locked access gate is located approximately 175 feet from the SR 1 turnout. There is an existing vehicle bridge over the central creek drainage, which is currently the only

crossing over this drainage that provides access for the landowner's cattle and agricultural vehicles. This bridge would be replaced with a weathered steel or wood bridge, and the bridge deck would be paved with asphalt or concrete. The bridge would be designed to span from bank to bank to eliminate disturbance or construction in the central creek drainage to provide vehicle access, access for hikers, as well as access for ranch management (i.e., cattle and landowner vehicles). A new access gate would be constructed at the property entrance to enable the trail and staging areas to be closed at sundown. The future development of the northern and southern staging areas would likely include partial relocation and extension of the existing access road to allow vehicle access to both staging areas. The access road to the staging areas would be designed as a single lane road consistent with the County's private driveway road standards. This design is consistent with road access for County parks. It is anticipated the road would be widened to approximately 12-feet, and may include a pull out area to allow cars to pass and would be surfaced with a gravel base. The access road is currently approximately 2,300 feet long and could be extended an additional 500 feet to enable access to the southern staging area. The access road would provide operations, maintenance, emergency, and public access to the staging areas and trail system. Figure 2-6 provides the location of the proposed access road and Figure 2-7 illustrates the County's specifications.



SOURCE: Sonoma County Regional Parks 2019

FIGURE 2-6

Proposed Access Road Location

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

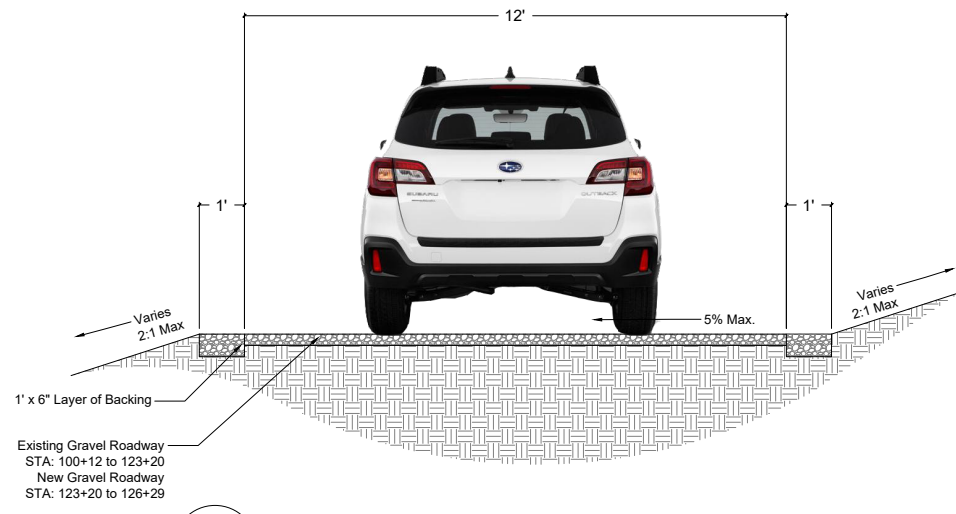
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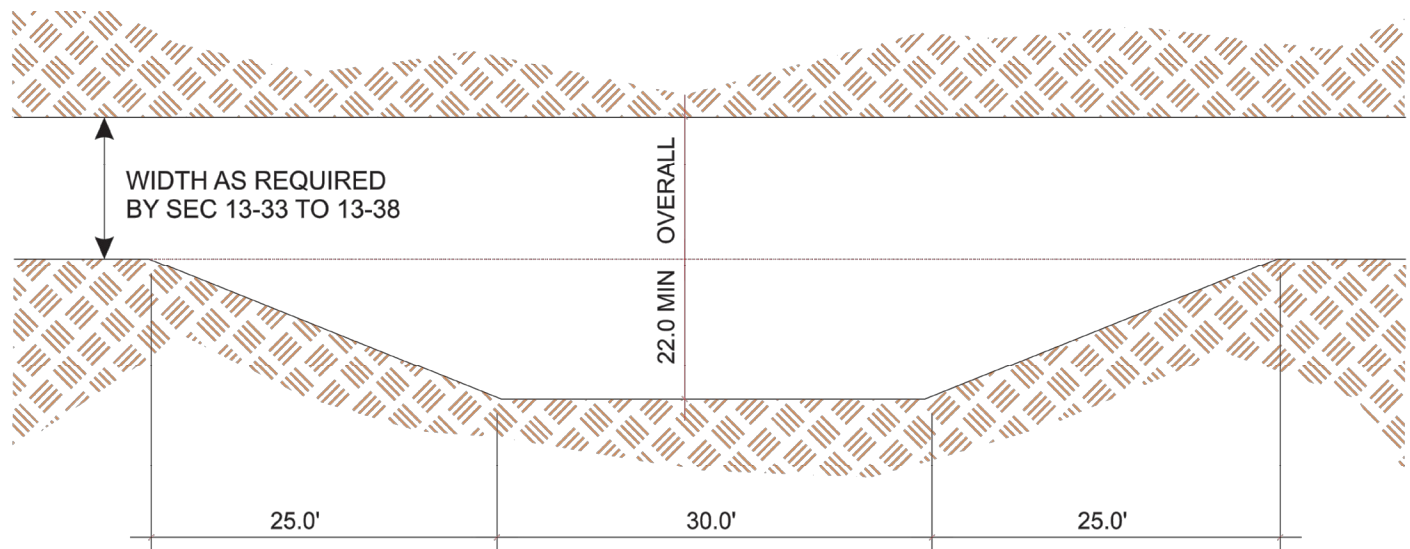
TRAFFIC LANE

**DRIVEWAY
SEC. 13-37**

- WIDTH AS REQUIRED BY SEC 13-33 TO 13-38
- DRIVEWAYS SERVE BUILDINGS
- ROADS SERVE PARCELS

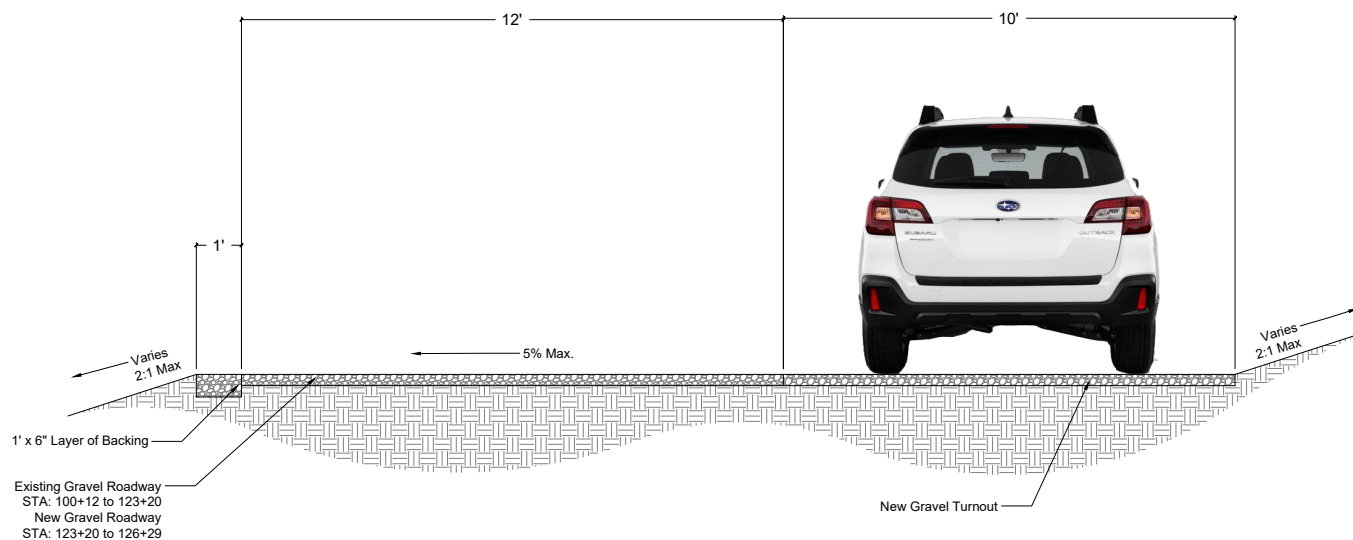


1 Typical Driveway Section STA: 100+12 to 123+20
nts



TURNOUT

[SEC 13-37(b)] ALL DRIVEWAYS EXCEEDING ONE HUNDRED FIFTY (150) FEET IN LENGTH SHALL HAVE A TURNOUT CONSTRUCTED AT APPROXIMATELY THE MIDPOINT OF THE DRIVEWAY. ANY DRIVEWAY EXCEEDING EIGHT HUNDRED (800) FEET IN LENGTH SHALL HAVE TURNOUTS CONSTRUCTED APPROXIMATELY EVERY FOUR HUNDRED (400) FEET ALONG THE ENTIRE LENGTH OF THE DRIVEWAY.



2 Typical Driveway Section at Turnout
nts

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Staging Areas/Parking

Two staging or parking areas—1.5 acres in total combined area—would be designated to accommodate parking for trail users. One staging area would be located in the north near SR 1 (north area), and the other would be located south of the existing barn and Agricultural Building Envelope (south area), as shown in Figure 2-4. The staging areas would provide a total of up to 30 parking spaces cumulatively between the two areas. If parking becomes an issue, Regional Parks rangers would be on-site to regulate access and turn away users when the parking areas are full.

The staging areas would be constructed with a permeable surface (gravel base) and would include Americans with Disabilities Act (ADA) accessible parking (one parking stall) in each area. The staging areas may also include the following features: portable restroom facilities, bicycle parking, display case, picnic tables, benches, animal-proof trash & recycle containers, and operations signage. Potable water would not be provided.

Signs in both staging areas would be consistent with the requirements set forth in the Trail Easement and would include wayfinding and maps as well as signage that explains the “rules” of access (e.g., specifying that dogs and equestrians are prohibited on the property including in the staging areas and on the trails, and bicycles are prohibited on all trails) would also be provided at the trailheads. Educational signage with information about protected plant and wildlife species and appropriate behavior around cattle in support of ranch management would also be provided at key locations along the trails, as discussed in detail below.

Trail Amenities and Signage

Trail amenities and features may include wood benches (up to six) placed along the trails. The staging areas may include picnic tables, animal-proof trash and recycling containers, and portable restrooms and associated privacy screening.

New fencing and gates would be designed to accommodate cattle grazing and to minimize any potential conflicts between hikers and natural resources, cattle grazing, and other ranching activities. Fences and gates would be designed to match the existing on-site facilities where appropriate and would include “kissing gates” for trail users to access lands where livestock graze. In accordance with the Conservation Easement, any new fencing would comply with the District’s standards for fences on conservation lands, which include no more than 40-inches in height, with smooth bottom wire no closer than 16-inches from the existing grade, two or three smooth or barbed central wires, and a smooth top wire. The top wire would be set at 12-inches from the next wire to reduce the chance of wildlife entanglement. This design may be modified slightly based on discussions with the landowner to ensure that it works for the agricultural operation. A kissing gate is a type of gate that allows people, but not livestock, to pass through. The normal construction is a half-round, rectangular, trapezoidal or V-shaped enclosure with a hinged gate trapped between its arms. This style of gate eliminates the need to close or lock a

gate as people pass through. Regional Parks has used this style of fencing and gates with success in other County facilities where hikers and cattle share the same area.

Interpretive and wayfinding signage would be provided in the staging areas, at the trailheads, at vista points along the trails, and at the Estero; examples of different types of signage are included in Figure 2-5. A monument sign at the project access road entrance or at the northern staging area would identify the park/trail name and would include the name of the agencies involved in funding the project. Additional informational signage would be provided indicating where to park and allowable speed limit. Signage at the staging areas (display style signage) would provide information on where to park, ranch activities and seasonal activities (e.g., notices of on-going agricultural activities stating that the trail user agrees to use the trail at his/her own risk, or trail users would be advised that agricultural operations would be occurring and may include pesticide spraying, agricultural dust and debris, and burning activities in accordance with State and local laws and ordinances), allowable uses, hours of operation, fee collection (if any), trail access and trail maps, and information on the flora and fauna and ecosystem. Trail markers along the trails would provide the trail name, distance (mileage) and destination, and educational signage providing information about sensitive plant and wildlife species would also be provided at key locations along the trails. At the Estero, a sign would be provided with the rules, information on the fragile ecosystem, and allowable uses and activities. All signage (including materials and size) would be constructed consistent with the Trail Easement and Conservation Easement requirements.

Hours of Operation, Allowed Uses, and Maintenance

Proposed operating hours for public use of the trails would be sunrise to sunset seven days a week, with limited seasonal access to the Estero for recreational uses such as kayaking and canoeing—if and to the extent the District determines such access is compatible with sensitive resources associated with the Estero—and other such uses similar in nature and intensity. The main access gate would be opened at sunrise and closed and locked at sunset every day. The project does not include any type of lighting. In the event a car is left in the parking lot when the gate is closed, the vehicle would be subject to a citation. In addition, a Park Ranger would do a foot patrol of the area to see if the vehicle owner can be located, which may include conducting a visual survey to see if it may be a kayaker in the Estero. The Ranger would also contact the Sheriff's Department to get information on the vehicle's owner which often includes a cell number. Currently, there are no plans to impose a day use fee to access the trails and the Estero, but this is subject to change depending on the project components.

The trails would be restricted to pedestrians/hikers only, and no dogs, bikes, or equestrians would be allowed at any time. Signage would be provided in the staging areas listing allowed and prohibited uses.

Maintenance of the trails and staging areas would be provided by Regional Parks. Regional Parks would be responsible for ensuring the trails are kept functional and safe. Maintenance activities would include mowing and maintaining the staging (parking) areas and trails, and Regional Parks rangers would also conduct periodic patrols of the trails and staging areas. If portable restrooms are provided in the staging areas these facilities generally would be serviced on a weekly basis, unless Regional Parks determines more frequent restroom cleaning is needed. Trash would also be removed on a weekly basis, unless more frequent removal is required. Trail maintenance would be as-needed depending upon use, weather, etc. Generally, trails require maintenance right before, during, and after the rainy season.

Regional Parks would also coordinate with local law enforcement in the event of any illegal activities and the County's Department of Emergency Services – Fire Prevention Division in the event of a fire. The County is preparing a Fire Management Plan as part of the project, consistent with the requirements set forth in the County's Local Coastal Plan. In addition, Regional Parks would work collaboratively and in good faith with the landowners with regard to their current agricultural operation.

Construction Details and Timeline

Project construction would occur outside of the wetter winter months and is anticipated to take 3 to 4 years to complete. Construction of the trails would be done by hand or using small equipment, while widening the access road and constructing the staging areas would require the use of heavy equipment such as graders.

All trail construction would conform to the County's trail construction standards and would include the following steps:

- Clearing and grubbing of the existing plants (consisting of mostly non-native annual grasses) along the trail alignment. The finished width of the trails would be no wider than be 5-feet, but up to a 20-foot wide area may be cleared and graded as needed to construct a sustainable trail designed consistent with the federal Architectural Barriers Act Accessibility Guidelines for backcountry trails, minimizing running slopes making the trail the most accessible to users of varying ability. Grading slopes above and below the trail may also be needed to minimize soil erosion by lessening the slopes above and below the trail. All exposed soil outside the five-foot wide trail width would be covered with existing duff stockpiled during clearing and grubbing or with weed-free straw.
- Minor grading of native soils to compacted trail bed at a maximum width of five-feet-wide. Cut and fill required to construct the trails would be balanced on-site so no import or export of soil would be required.

- Silt fences or wattles would be placed at sensitive areas, along seasonal streams, seeps, and wetland areas.
- Grading to maintain a running slope between 2.5% to 10% and a maximum cross slope of 5%.
- Installation of approximately 12 new seasonal stream crossings that would range in size from 3 to 8-feet long and 5-feet wide and could include the following:
 - Puncheon⁴, or
 - Armored crossing⁵ - 4"-9" riprap to 12" depth in approximately an 8 foot by 10 foot area, or
 - Foot bridges.⁶

Figures 2-8a through 2-8e provide examples of the various stream crossings that could be constructed.

- Installation of raised trail bed through seasonal wet seeps:
 - Could be a wooden boardwalk (foot bridge), or
 - Crushed rock to form drainage lenses⁷ – on 4"-6" riprap raised surface.

Construction staging for equipment and parking for construction workers would be provided on-site in the area designated for future parking. During project construction, equipment would be stored on-site only in designated areas.

Discretionary Actions and Use of This EIR

The County will be the lead agency under CEQA to review the proposed project. The District will be a Responsible Agency as it holds the Conservation Easement and will be transferring the Trail Easement to the County. The County is exempt from the Sonoma County Zoning Code, so no local entitlements are necessary to construct the trail. However, the following Responsible Agencies may be required to use this EIR to authorize construction or to issue permits for the project.

⁴ Small, wooden bridge designed for high water to flow over, usually set on a wood foundation. Typically this would be used to cross a drainage feature.

⁵ An armored stream crossing includes using larger rocks and gravel set flush within the existing waterway to create solid footing for the user, but is not designed to elevate the crossing above the waterline.

⁶ A footbridge is similar to a puncheon, but is designed for crossing wider areas. It is typically also constructed of wood and allows crossing wet or boggy areas.

⁷ A drainage lens or rock causeway is built on top of the existing soil elevation using large rocks as the base with smaller rocks for the trail bed surface. It is typically used where there are wet soils and wet seeps in flat areas.

Responsible and Trustee Agencies

The EIR prepared for the proposed project would be used by responsible agencies and trustee agencies that may have some approval authority over the proposed project (i.e., to issue a permit). The County would obtain all federal, state and local permits, as required by law. The following agencies have been identified as having potential discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- North Coast Regional Water Quality Control Board (RWQCB) will require either a Section 401 Water Quality Certification, Waiver of Waste Discharge Requirements for impacts to on-site wetlands.
- California Coastal Commission may require a Coastal Development Permit to construct the proposed project.
- California Department of Fish and Wildlife is a trustee agency under CEQA with regard to impacts, if any, to: (i) the fish and wildlife of the state, (ii) designated rare or endangered native plants, and (iii) other important natural resources.
- California Coastal Conservancy (Project Funding).
- State Lands Commission is a trustee agency under CEQA with regard to state-owned "sovereign" lands, such as the beds of navigable waters including the Estero Americano.
- An Operating Entity, such as Sonoma County Regional Parks, may be designated by the District to assume responsibility for development and operation of the future trail system. That Operating Entity would be a responsible agency.
- Northern Sonoma County Air Pollution Control District may require an Authority to Construct or Modify permit for construction activities if any stationary source equipment would be required.
- Sonoma County Agricultural Preservation and Open Space District, as current holder of the Trail Easement, is a responsible agency under this EIR. As holder of the Conservation Easement, the District will continue to monitor recreational uses for compliance with the Conservation Easement.

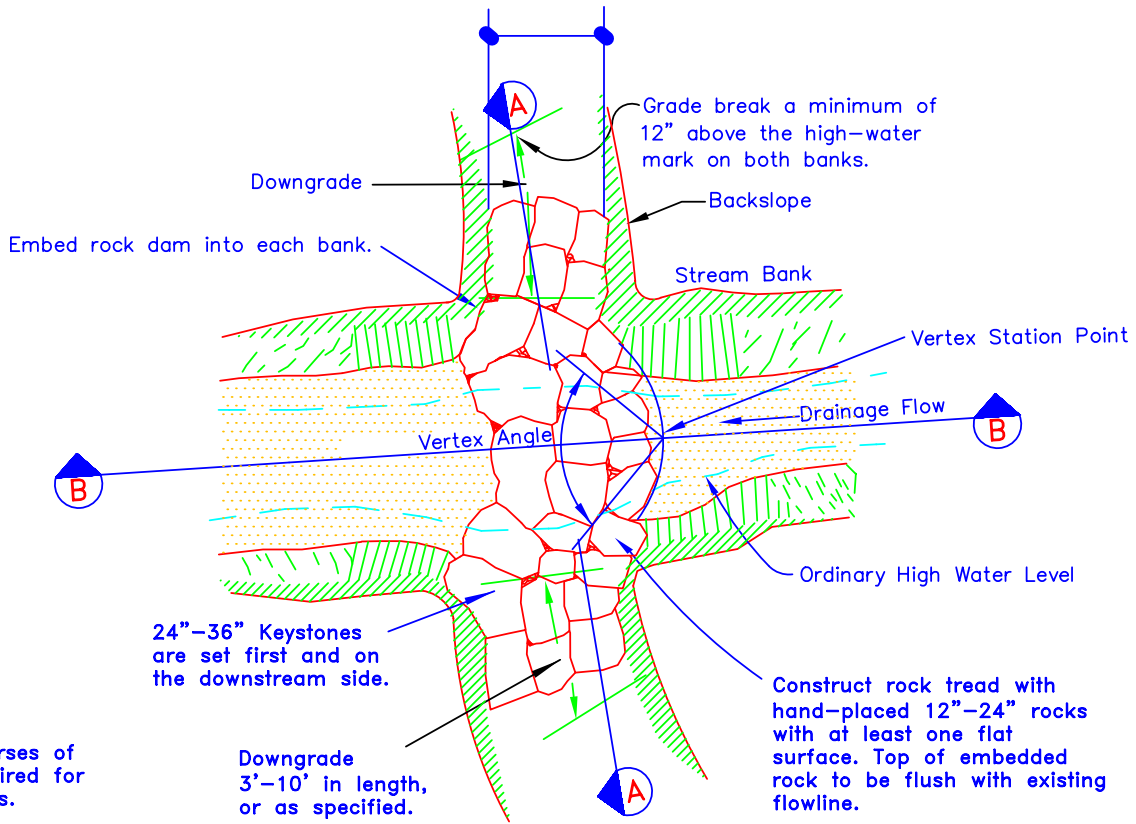
Federal Agencies

- U.S. Fish and Wildlife Service (USFWS) may require an Incidental Take Permit for species listed under the Federal Endangered Species Act that are under their jurisdiction.
- NOAA Fisheries (NMFS) may require an Incidental Take Permit for species listed under the Federal Endangered Species Act that are under their jurisdiction.

- The U. S. Army Corps of Engineers (Corps) will require a Nationwide Permit/or Individual Permit under Section 404 of the Clean Water Act for impacts to on-site wetlands.
- Greater Farallones National Marine Sanctuary oversees construction activity adjacent to the Estero Americano.

Ministerial Permits

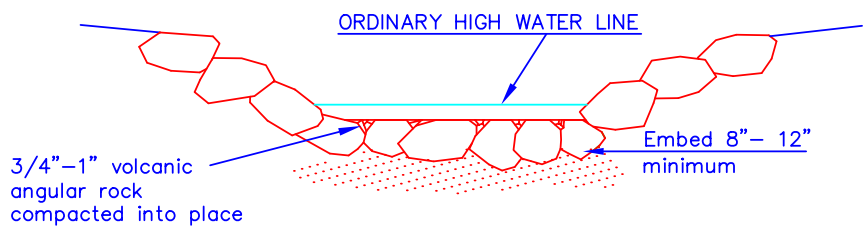
- California Department of Transportation (Caltrans) may require a temporary encroachment permit for construction.
- Permit Sonoma may require a grading permit for construction, ADA and Architectural Barriers Act compliance, and a storm water permit for trail and staging area construction.



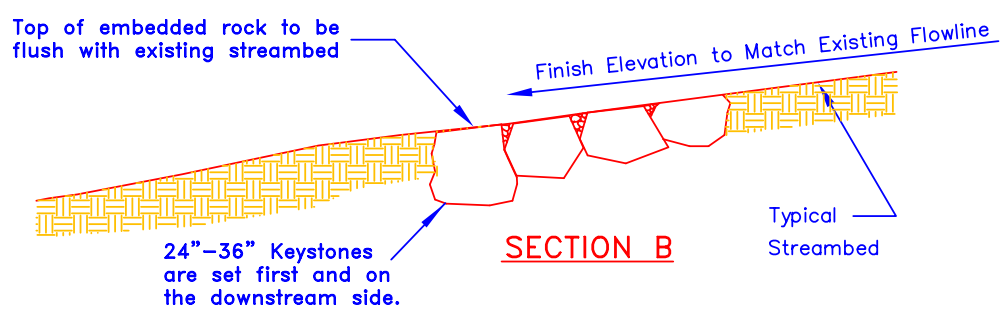
PLAN VIEW

NOTES

1. Multiple courses of rocks are required for larger crossings.
2. Trail should be dewatered with a rolling dip or other method before downgrade on both sides of the crossing.
3. Crossing shall curve upstream based on vertex angle. See Trail Log, Specifications and/or Inspector for exact angle.

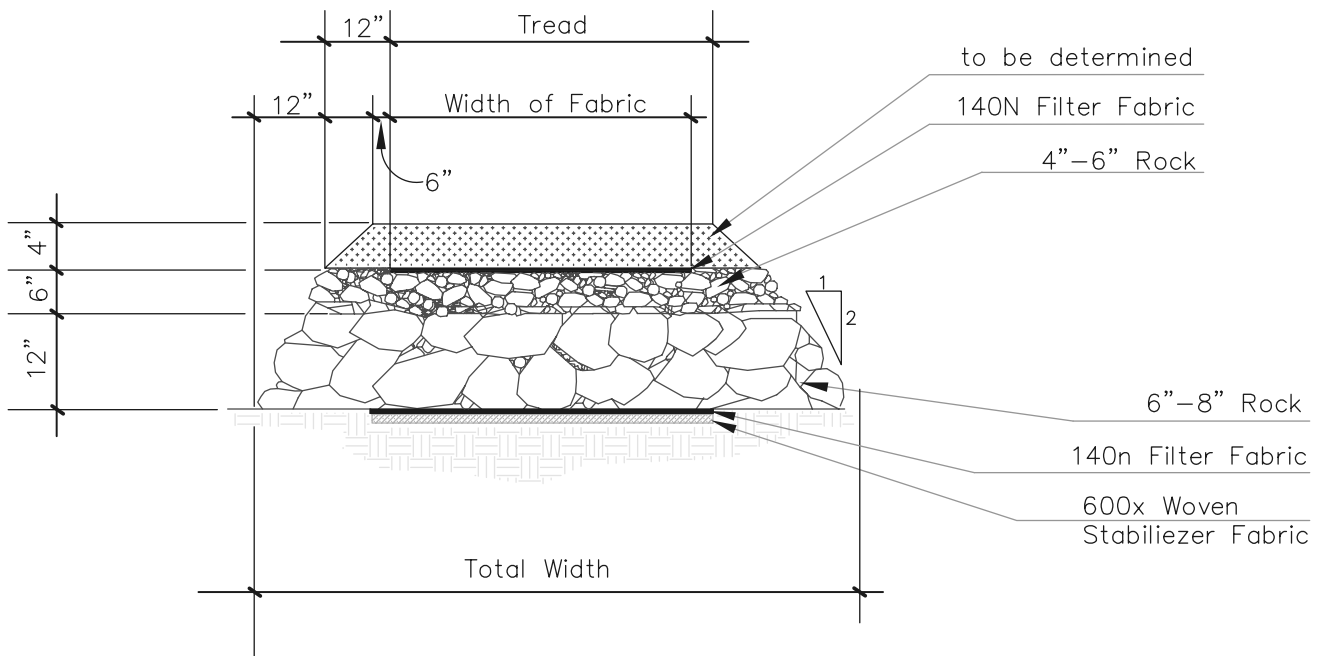


SECTION A



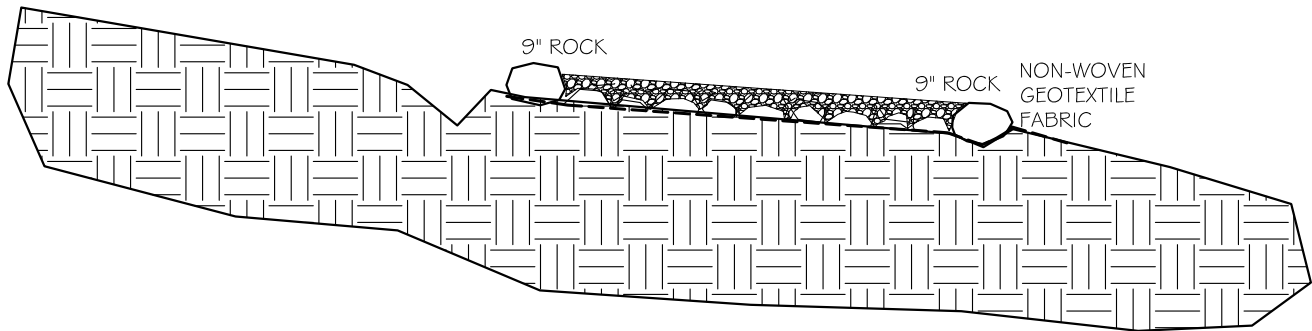
SECTION B

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CLEAR GRASS & VEGETATION FROM TRAIL BED & CUT GRADE TO CROSS SLOPE @ 3%-4% TO DRAIN. EXCAVATE A 3"-4" DEEP TRENCH ON BOTH SIDES FOR ROCK EDGES. INSTALL NON WOVEN GEO-TEXTILE FABRIC. PLACE 9" ROCK EDGING ON BOTH SIDES. EXCAVATE A DRAINAGE SWALE ON THE UPHILL SIDE OF THE ROCK CAUSEWAY & DAYLIGHT TO DRAINAGE ALONG NORRBOM ROAD. USE THE EXCAVATED SOIL & SMALL LOOSE ROCK FROM THE SWALE TO BACKFILL & COMPACT THE TRAIL TREAD.



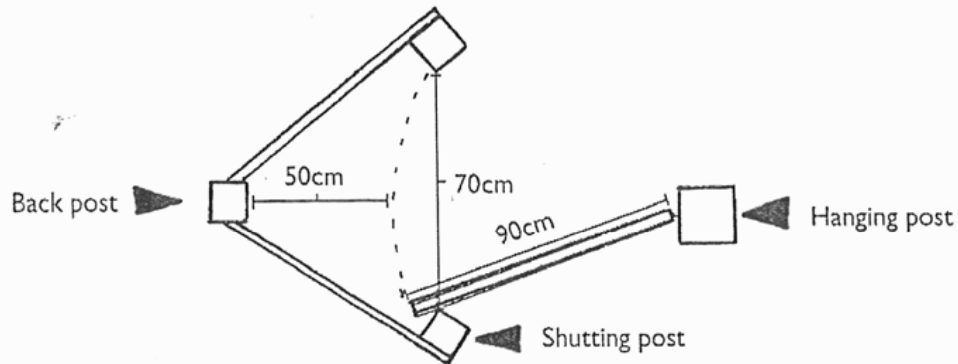
SOURCE: Sonoma County Regional Parks 2018

FIGURE 2-8c

Rock Causeway

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DESIGN 2 - Pedestrian users only



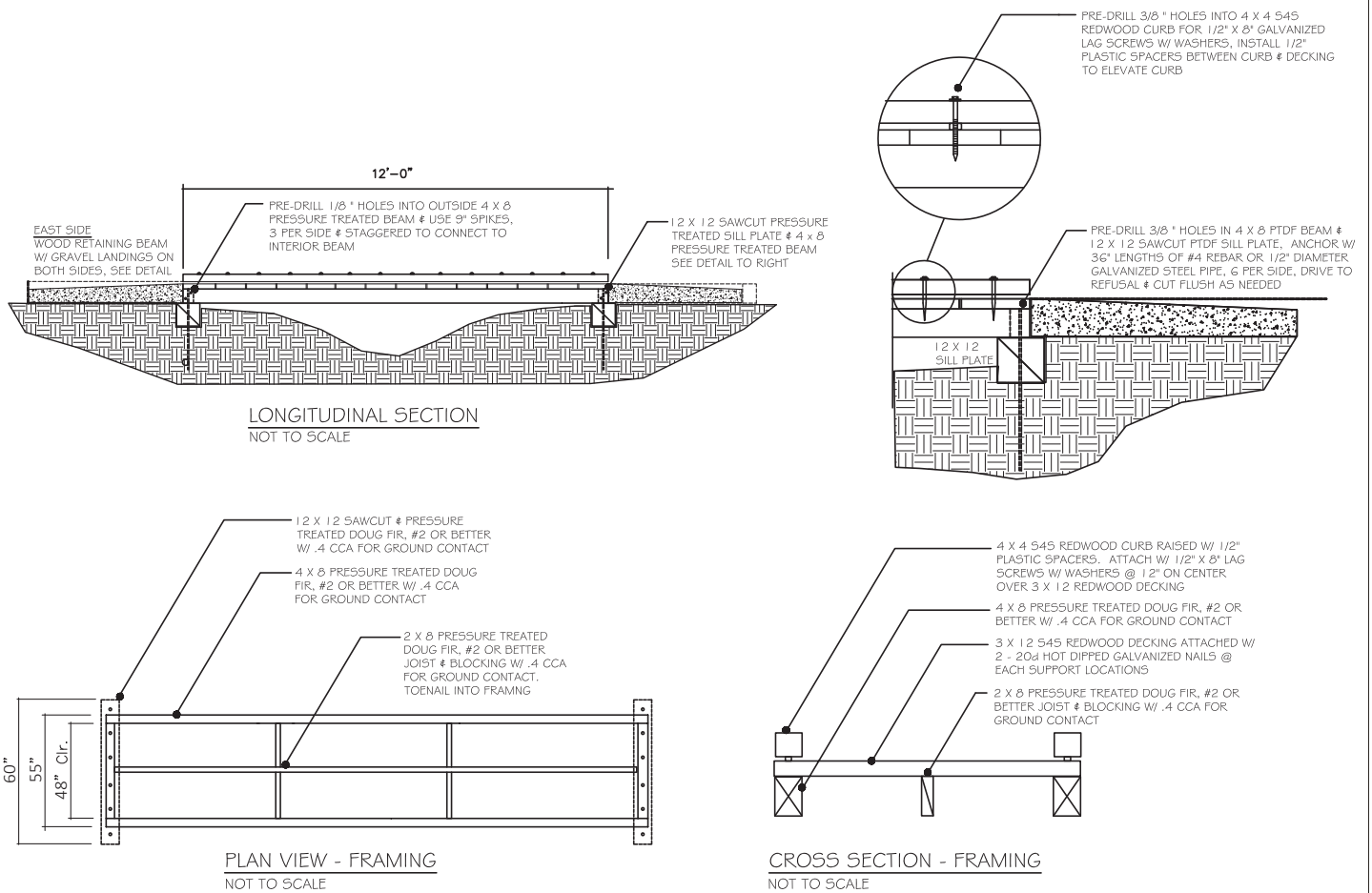
MATERIAL AND CONSTRUCTION - Design 2 -Pedestrian only gate

Hanging Post	15cm x 15cm x 225cm (6" x 6" x 7½ft)
Shutting & Back Posts	10cm x 10cm x 210cm (4" x 4" x 7ft)
Gate	90cm wide x 122cm high (3ft x 4ft) Morticed and double braced
Hinges	Top hinge to be bolted through the hanging post and the bottom hinge driven in inverted to prevent the gate being lifted off its hinges
Rails	87mm x 38mm (3½" x 1½")
Finished Height	Approximately 122cm (4 ft)

Construction

Hanging post to be dug into a depth of 106cm (3ft 6"). Shutting posts to be positioned 70cm (2ft 4") apart so that the gate swings shut onto the posts. The back post to be positioned a minimum of 70cm (2ft 4") from the closest point of the gate end swing.

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SOURCE: Sonoma County Regional Parks 2018

FIGURE 2-8e

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CHAPTER 3 INTRODUCTION TO THE ANALYSIS

Scope and Format of the EIR

This chapter of the Draft Environmental Impact Report (Draft EIR) discusses the environmental and regulatory setting, impacts, and mitigation measures for each of the following technical issue areas or sections of this chapter (Sections 3.1 through 3.13):

- 3.1 Aesthetics
- 3.2 Agricultural Resources
- 3.3 Air Quality
- 3.4 Biological Resources
- 3.5 Cultural Resources
- 3.6 Geology and Soils
- 3.7 Greenhouse Gas Emissions
- 3.8 Hydrology and Water Quality
- 3.9 Land Use and Planning
- 3.10 Noise
- 3.11 Public Services and Safety
- 3.12 Recreation
- 3.13 Transportation and Circulation

It is important to note impacts of the environment on a project or plan (as opposed to impacts of a project or plan on the environment) are beyond the scope of required CEQA review. “[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project” (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473 and *California Building Industry Association v. Bay area Air Quality Management District* (2015) Cal.App 4th.). However, information pertaining to potential impacts associated with the environment on the project are included for informational purposes.

The “proposed project site” or “project site,” as referenced throughout the EIR, generally refers to the 50-foot-wide Trail Corridors and Staging Areas where the proposed trail alignments, staging areas, and other project components would be constructed. The ranch property, located within the larger Conservation Easement area outside of the Trail Corridors and Staging Areas, is generally referred to as the Bordessa Ranch property.

Technical Studies Overview

A number of technical studies were prepared as part of this Draft EIR and are included in the technical appendices. Studies prepared include numerous biological resource reports (Appendix C) and a Cultural Resources Report (Appendix D). The following is a brief overview of the findings of the technical studies prepared for the project.

Reports prepared to evaluate potential impacts to protected species and their habitat include the following:

- A biological reconnaissance survey was conducted on September 26, 2017, to assess on-site habitats and their potential to support various special-status plant and wildlife species and to characterize and map on-site vegetation communities.
- A habitat assessment and focused surveys to determine suitability and presence/absence for California red-legged frog and western pond turtle were conducted on September 26, 2017, at all aquatic sites that contained water on the project site.
- A jurisdictional delineation was conducted on May 25-26, 2017 and September 27, 2017, to characterize and map wetland/aquatic areas potentially under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act and under California Department of Fish and Wildlife jurisdiction pursuant to Section 1600 of the California Fish and Game Code.
- Focused protocol-level surveys for special-status plant species known to occur in the region and potentially occurring on the project site were conducted on April 13-14, 2017, May 25-26, 2017, and August 2-3, 2017 to coincide with the blooming periods of those species.
- A habitat assessment for Ridgway's Rail, a duck marsh species now entirely confined to the San Francisco Bay estuary, and the Salt Marsh Harvest Mouse, a federal- and state-listed endangered species, was conducted on June 27, 2018.
- A Cultural Resources report that evaluated the potential for prehistoric or historic resources to be present on the site and within the area of potential effect or disturbance was completed on August 25, 2018.

The traffic consultant, W-Trans, did not prepare a stand-alone traffic report for the project because the technical section in Chapter 3, Section 3.13, Transportation and Circulation, provides the same information as a traffic report. Appendix E provides the model output data from the traffic modeling prepared for the project.

Environmental Setting

Subdivision (a) of Section 15125 of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR include a description of the existing physical environmental condition in the vicinity of the project as those conditions exist at the time when the Notice of Preparation (NOP) is published. This “environmental setting” will normally constitute the “baseline condition” against which project-related impacts are compared. Therefore, the baseline conditions for this EIR, unless noted otherwise, are based upon conditions that existed in November 2017, when the NOP was published. The CEQA Guidelines recognize that the data for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time, the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate in certain circumstances when doing so results in a more accurate or conservative environmental analysis.

For analytical purposes, impacts associated with implementation of the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) are compared against two different baselines: first, project-specific effects are assessed against existing conditions at the time the NOP was first published; and second, cumulative effects are assessed against future, or “cumulative,” conditions, generally defined as buildout of the County of Sonoma General Plan 2020. Existing conditions and the cumulative baseline can differ by issue area. Each technical section defines the existing conditions and cumulative baseline for the impacts analyzed.

In determining the level of significance of environmental impacts associated with the proposed project, the analysis in this Draft EIR assumes that the proposed project would comply with relevant federal and state laws and regulations, County General Plan policies, ordinances, and other relevant adopted County documents, unless otherwise noted. Therefore, such mandatory policies, ordinances, and standards are not identified as mitigation measures, but rather are discussed as part of the “Regulatory Setting” governing the proposed project.

Section Format

Each technical section in Chapter 3 begins with an **introduction** that explains the issues to be evaluated, provides a general summary of relevant comments received in response to the NOP, and identifies the primary sources reviewed to prepare the analysis. In October 2016, Permit Sonoma prepared and circulated an Initial Study and draft Mitigated Negative Declaration (MND) for the same project. After reviewing the information disclosed by the draft MND document, the Board of Directors of the Sonoma County Agricultural Preservation and Open Space District (District) and the Board of Supervisors of the County of Sonoma directed staff to prepare an EIR for the proposed project to more fully characterize and evaluate potential impacts of the project. Comment letters

received in response to the prior MND were also reviewed during preparation of the EIR and relevant comments are summarized in the introduction section of each technical section in Chapter 3. The introduction is followed by a description of the project's **environmental setting** and **regulatory setting** as it pertains to a particular issue.

The regulatory setting provides a summary of applicable federal, state, and local regulations, plans, policies, and laws that are relevant to each issue area. The regulatory setting description in each section is followed by a discussion of **project impacts**. The project impact discussion is followed by an analysis of the **cumulative impacts** of the project. This section addresses what the project's incremental contribution to any current cumulatively significant impact would be and identifies mitigation measures, if required. The impact statement is prefaced by a number for ease of identification. An explanation of each impact and an analysis of its significance follow each impact statement. All **mitigation measures** are identified immediately following the impact analysis. The degree to which the identified mitigation measure(s) would reduce the impact is also described. Compliance with applicable laws, policies, and County regulations is assumed and will be identified in the impact analysis. In many cases, compliance with applicable laws, policies, or regulations would reduce the significance of a potential impact. Compliance with such regulatory requirements will not be identified as a separate mitigation measure.

An example of an impact statement is shown below:

3.1-1: Implementation of the proposed project could expose sensitive receptors to substantial pollution concentrations. Based on the analysis below and with implementation of mitigation the impact is less than significant. (The significance finding is included in each impact statement).

A discussion of potential impacts of the proposed project is presented in paragraph form. The project-specific impacts associated with construction and operation of the project are evaluated and compared to the threshold of significance for the particular impact. The analysis discusses the applicable local, state, and federal laws and regulations that would reduce impacts, and assumes that the project would comply with applicable laws, ordinances, and regulations, and that the project applicant would obtain all necessary permits and comply with all required conditions of those permits. In many instances, the actions necessary to reduce a project impact are already required by existing laws or requirements. The impact analysis concludes with a determination of the impact's significance in **bold type** (e.g., **significant impact, significant and unavoidable impact, potentially significant impact, less-than-significant impact, or no impact**).

Mitigation Measures

A discussion of the applicable mitigation measures identified to reduce the significance of an impact will immediately follow the impact analysis.

This section includes a statement indicating whether the mitigation measure will reduce the impact to a **less-than-significant level** or if the impact remains **significant and unavoidable** due to the absence of any available mitigation that could reduce the impact below the applicable threshold. A discussion of how the mitigation would reduce the impact is included before the mitigation measure.

Mitigation measures, if applicable, are identified by the section and numbered sequentially, as presented in the following format:

AES-1 Statement of what, if any, mitigation measures are required.

Note that CEQA Guidelines, Section 15370, defines mitigation as:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

In addition, provided there is a “reasonable plan for mitigation” and contributions are “sufficiently tied to the actual mitigation” of the project’s impacts, a commitment to contribute a fair share to such a program discharges an agency’s mitigation duty under CEQA (*Save Our Peninsula Com. v. Monterey County Bd. of Supervisors* 2001) 87 Cal.App.4th 99, 141); see also CEQA Guidelines, Section 15130, subd. (a)(3) [recognizing that a project’s contribution to a cumulative impact may be less than cumulatively considerable where “the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact”] see also *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173).

Cumulative Impacts

An analysis of cumulative impacts follows the evaluation of project impacts under existing conditions in each section in Chapter 3. As defined in CEQA Guidelines, Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative

impact from several projects is the change in the environment that results from the incremental impact of the project together with other past, present, and reasonably foreseeable projects causing related impacts.

An introductory statement that defines the cumulative analysis methodology and the cumulative context for respective sections (e.g., buildout of the County’s General Plan, development within the Air Basin) is included under the “Cumulative Analysis” discussion. In some instances, a project-specific impact may be considered less than significant but would be considered potentially cumulatively significant in combination with other development within the surrounding area. Or, in other instances, a potentially significant impact could result on a project level impact, but would not result in a cumulatively considerable impact. The cumulative impacts analysis is presented in the same format as the impacts section, shown above.

Terminology Used in This EIR

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- **Thresholds of Significance:** A set of criteria used by the lead agency to determine at what level or “threshold” an impact would be considered significant. Standards of significance used in this Draft EIR include those set forth in CEQA Guidelines Section 15065 (Mandatory Findings of Significance) and those derived from questions set forth in Appendix G to the CEQA Guidelines; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the County of Sonoma General Plan 2020. In fashioning criteria based on these sources, County staff has also relied on its own professional judgment and experience in some instances. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local regulations and ordinances.
- **Less-than-Significant Impact:** A project impact is considered less than significant when it does not reach the standard of significance, indicating that there would be no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that could cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant Impact:** A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. When available, potentially feasible mitigation measures and/or project alternatives are identified to reduce these effects to the environment.
- **Cumulative Impact:** According to CEQA, “cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines, Section 15355). CEQA requires that cumulative impacts be discussed when the “project’s incremental effect is cumulatively considerable” (CEQA Guidelines, Section 15130 (a)).

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3.1 Aesthetics

Introduction

This section of the Draft Environmental Impact Report (EIR) evaluates the potential changes to the existing visual characteristics of the project site and vicinity that could result from future development of the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). The analysis focuses on the change in visual character and effects on views, and scenic resources.

No comments were received that raised concerns regarding aesthetics in response to the Notice of Preparation (NOP) or on the prior Mitigated Negative Declaration prepared for the project in October 2016. To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

Environmental Setting

This section describes the existing conditions in the project area and identifies the resources that could be affected by the proposed project.

Regional Setting

The Sonoma County General Plan 2020 recognizes coastal bluffs, vineyards, the San Pablo Bay, and the Sonoma coast as important scenic resources within the County. Mountain ranges and hills within the County, such as the Mayacama and Sonoma Mountains and hills south of Petaluma, also provide a scenic backdrop (Sonoma County 2016). The western portion of the County is dominated by redwood forests and the coastal mountain range. The landscape of the southern portion of the County is characterized by rolling hills and grazing lands. The defining characteristic of the County, however, is the intermingling of rural communities and the natural landscape (Sonoma County 2016).

Highway 101, Highway 12, Highway 116, and State Route 1 (SR 1) are the primary highway corridors within the County. Highway 101 passes through central Sonoma County, where many of the County's urban centers are located. Highway 12 runs from the Napa County border north towards Santa Rosa, then west to Sebastopol. Highway 116 runs north towards Rohnert Park, then branches northwest through Sebastopol and Forestville and joins SR 1 near the coast. SR 1 runs along the entire western boundary of the County adjacent to the coast. SR 1 is characterized by scenic views of the Pacific Ocean, coastal bluffs and terraces, and redwood groves (Sonoma County 2006).

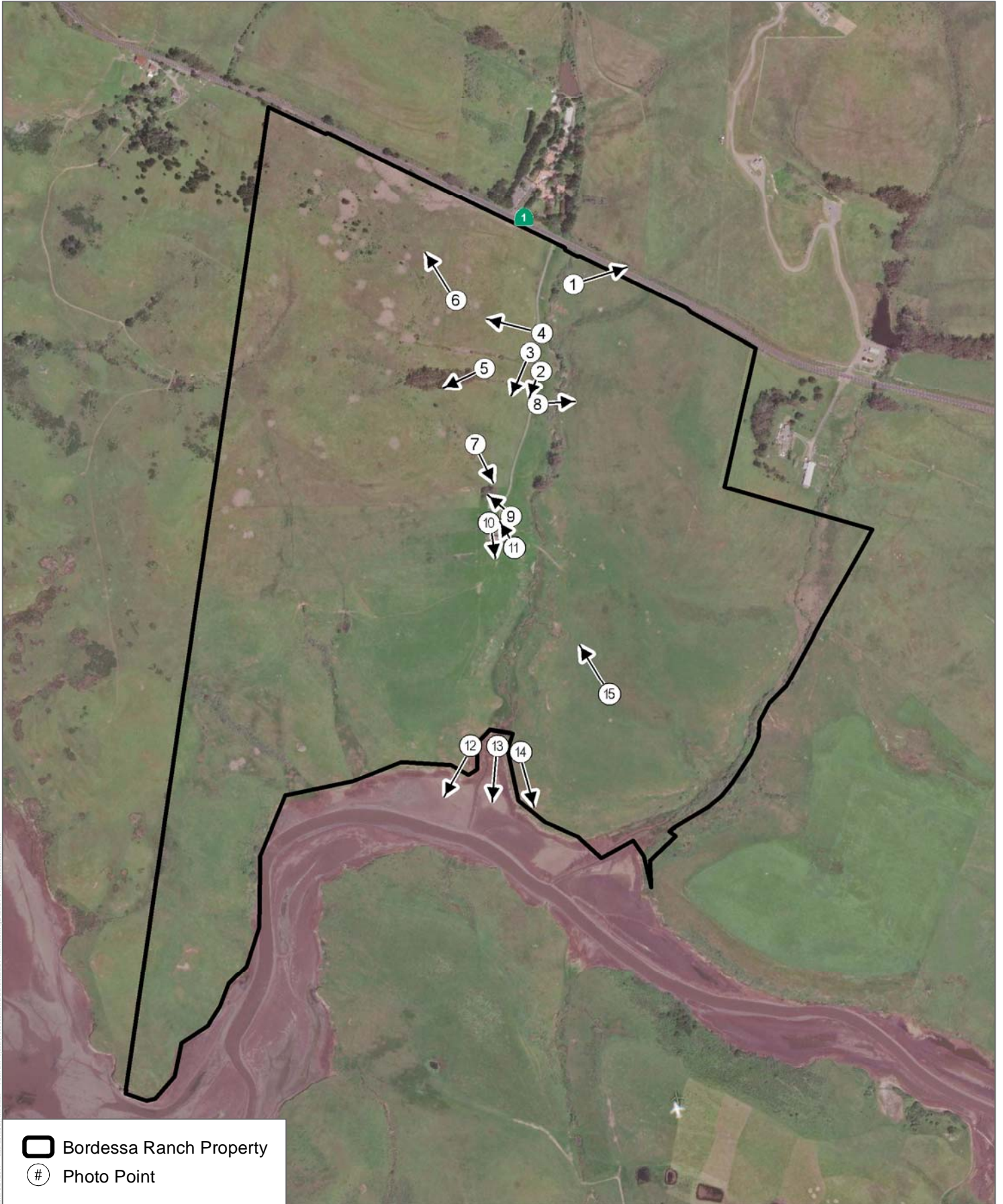
In addition to wide views of agricultural and open space lands, Sonoma County contains unique geologic formations that provide a scenic backdrop to the County. These include Mount Saint Helena at the northeastern boundary of the County, and Sonoma Mountain in the southeastern portion of the County. In addition, large blocks of serpentine within the County create ridges that contribute to the County's unique visual landscape (Sonoma County 2006).

Existing Project Site (including the Bordessa Ranch Property)

The project site (Trail Easement and Staging Areas), including the larger Bordessa Ranch property, is bordered by SR 1 on the north and extends to the Estero Americano (Estero) on its south, encompassing rolling hills and two prominent knolls. The Bordessa Ranch property is currently used as grazing land for cattle and is a working cattle ranch that contains a large barn, sheds and outbuildings, a gravel/dirt access road, fencing, a concrete water tank, spring boxes and concrete water troughs, and two 2,500-gallon above-ground water tanks. With the exception of the access road, fencing, barn and outbuildings, and water facilities, the remainder of the site is undeveloped. The topography of the project site and the Bordessa Ranch property is primarily characterized by gently to steeply sloped hillsides with a central valley created by a drainage that flows into the Estero at the southern end of the site. Annual grassland, rocky outcrops, stock ponds, springs, hillside seeps, a perennial creek, and several smaller drainages are also located on the property. These drainages, as well as one of the stock ponds, support riparian vegetation and/or eucalyptus groves.

California annual grassland is the dominant vegetation community on the project site. In the summer, fall and winter months the grasslands dry out and views of project site include rolling hillsides in various shades of brown. During the late winter and early spring views of the hillsides and grasslands change from brown to green after the winter rains. Evergreen trees including Monterey pine trees and Eucalyptus are also visible on the project site.

The Estero is a scenic and biologically rich coastal estuary along the boundary of Sonoma and Marin counties. The elevation of the project site ranges from sea level at the Estero to about 400 feet at the highest knoll on the northwestern corner of the site. Locations of key viewpoints on the project site are depicted in Figure 3.1-1 and photos from these representative viewpoints are shown in Figures 3.1-2 through 3.1-9.



SOURCE: Bing Maps 2018; Sonoma County 2015

FIGURE 3.1-1

Locations of Site Photographs

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1 - Looking east from project site towards Highway 1



2 - Looking south down existing access road toward barn

FIGURE 3.1-2

Site Photographs

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3 - Looking southwest near existing access road toward existing barn



4 - Looking west from existing access road toward fence

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FIGURE 3.1-3

Site Photographs

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5 - Looking southwest toward eucalyptus grove in northwestern portion of site



6 - Coyote brush scrub in northwestern portion of property

FIGURE 3.1-4

Site Photographs

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7 - Looking southeast across site from proposed West Estero Trail Loop



8 - Looking east from existing access road toward central creek

FIGURE 3.1-5

Site Photographs

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9 - Existing outbuilding



10 - Existing barn, attached bunkhouse on right

FIGURE 3.1-6

Site Photographs

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11 - Existing water tank



12 - View looking southwest toward Estero

FIGURE 3.1-7

Site Photographs

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13 - View looking southwest toward Estero



14 - View looking southeast toward Estero

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FIGURE 3.1-8

Site Photographs

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15 - View looking northwest from southeastern portion of property

FIGURE 3.1-9

Site Photographs

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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Views of the Project Site from the Surrounding Area

The project site is visible from the portion of SR 1 to the north of the site and partially from the Sonoma Coast Villa Resort & Spa located across SR 1 to the north, although views are largely blocked from this location due to mature trees and vegetation surrounding the resort. From the segment of SR 1 to the north of the project site, views of the site primarily consist of rolling hills that contain annual grasslands, intermittent shrubs and mature trees in various shades of green and brown, and a gravel/dirt access road to the site. In addition, a large brown barn and rolling hills are visible in the background. A brown rusted, metal gate is visible near the entrance of the access road from SR 1, and the site is surrounded by low barbed-wire with wood pole fencing on its northern end. From the Sonoma Coast Villa Resort & Spa, views of the project site primarily consist of the undeveloped grasslands and rolling hillsides on the project site. Utility poles span the northern portion of the project site along SR 1. The project site (and the Bordessa Ranch property) is surrounded by private property to the north, west, and east. These properties primarily consist of rolling pasture land that is similar in character to the project site.

Views from the Project Site

Views from the project site include surrounding rolling hills within the Bordessa Ranch property and adjacent land, the Estero to the south, and SR 1 to the north of the site. From the north of the project site looking towards SR 1, views consist of brown and green vegetation that line the roadway, including a dense combination of mature trees and shrubs and annual forbs and grasses, and the paved, two-lane highway. Small signs marking the location of the Sonoma Coast Villa Resort & Spa are visible looking northwest from the project site along SR 1. Long-range views of rolling hills characterized by grasslands are visible looking northeast from the project site (Figure 3.1-2). Views from the access road on the project site primarily consist of annual grasslands within the Bordessa Ranch property that are green in the early spring after the winter rains and brown during the summer and fall months. Several mature trees, primarily consisting of Monterey pine trees, are scattered across the site. Rocky outcrops are also visible past low open barbwire fences that border the access road (Figure 3.1-3). The southern end of the access road leads to two buildings: one large barn and one wooden outbuilding part of the Bordessa Ranch. The outbuilding is located upon a gray concrete slab and consists of a rectangular building with a brown wood-panel exterior, several glass windows, and a flat metal roof. The barn is a large, steep-roofed structure with a white wood-panel exterior and large open entrance with a small open window above the entrance. The barn is connected to a small shed with a door and glass windows. In the southern portion of the project site, views of the Estero are visible from the highest vantage points on the project site, which include marshlands with areas where salt collects (Figure 3.1-6). Rolling hills can be seen in the background and hills surround the valley that the Estero passes through. This area is of high visual quality, due to unobstructed views of the Estero and associated natural features (Figure 3.1-8).

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments. Light that falls beyond the intended area of illumination is referred to as “light trespass.” Types of light trespass include spillover light and glare. Spillover light, which is light that illuminates surfaces beyond the intended area, is typically caused by artificial lighting sources, such as from building security lighting, signs, parking lot lights, roadway lights, and stadium lights on playing fields. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it moves farther from its source, the intensity of the lighting source is often increased to compensate for dissipating light, which can increase the amount of light that illuminates adjacent uses. The type of light fixture determines the extent to which light will spill over onto adjacent properties and/or be visible from far away. Modern, energy-efficient fixtures that face downward, such as cutoff-type fixtures and shielded light fixtures, are less obtrusive than light fixtures that have been used in the past.

The second type of light trespass is glare, which results when a light source in the field of vision is brighter than the eye can comfortably accept. Glare can result from sunlight or from artificial light reflecting off building exteriors, such as glass windows, metal roofs or other highly reflective surface materials. Squinting or turning away from a light source is an indication of glare. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles. Glare resulting from sunlight reflecting off building exteriors can be reduced with design features that use low-reflective glass and exterior materials and colors that absorb, rather than reflect, light.

Existing Light and Glare Conditions

There are minimal light sources associated with exterior building lights on the Bordessa Ranch buildings. Within the project site there are no sources of existing light or glare. Other sources of light in the project vicinity include residential uses approximately 0.5 mile to the north and east of the site, the Sonoma Coast Villa Resort & Spa located north of the project site across SR 1, and vehicle headlights visible at night along SR 1.

General Plan Land Use Designations

The project site is designated in the Sonoma County General Plan and zoning code for Land Extensive Agriculture (Sonoma County 2013). Portions of the site are within the County’s Riparian Corridor and Scenic Resource combining districts.

The Open Space and Resource Conservation Element of the Sonoma County 2020 General Plan designates the project site as being adjacent to a Scenic Corridor (Highway 1) (Sonoma County 2008).

Regulatory Setting

Federal Regulations

There are no federal regulations pertaining to visual resources that would apply to the proposed project.

State Regulations

The following state regulations would apply to the proposed project.

California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways (Caltrans 2018). The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. County roads can also become part of the Scenic Highway System. To receive official designation, the county must follow the same process required for official designation of State Scenic Highways.

The nearest designated state scenic highway is Highway 116 from SR 1 near Jenner to Highway 101 near Cotati, approximately 9 miles from the site. The segment of SR 1 from the northern boundary of Sonoma County until approximately 5 miles east of the community of Bodega Bay is an eligible state scenic highway, but is not currently designated as a scenic highway. The nearest portion of this eligible scenic highway is located immediately north of the project site (Caltrans 2017).

Local Regulations

Sonoma County General Plan 2020

The Open Space and Resource Conservation Element of the Sonoma County 2020 General Plan designates three types of scenic resources within the County that are important to the County's visual character and quality: Community Separators, Scenic Landscape Units, and Scenic Corridors. Community separators are open space or rural buffers located between urban communities that provide distinction between the County's developed communities and prevent urban sprawl. Scenic Landscape Units are landscapes that have special importance to the County by contributing to the quality of life of County residents, tourists, and the agricultural economy, providing a scenic backdrop to communities, and providing visual relief from urban densities (Sonoma County 2016). Furthermore, the County designates corridors within the

County with views of high visual quality landscapes as Scenic Corridors (Sonoma County 2016, Figure ORSC-1). The segment of SR 1 from the northern boundary of Sonoma County until approximately 5 miles east of the City of Bodega Bay is a County designated Scenic Corridor. A segment of this Scenic Corridor is located directly north of the project site.

The Open Space and Resource Conservation Element of the Sonoma County 2020 General Plan provides objectives, policies, and programs regarding aesthetics. Several of these policies are pertinent to areas designated as Scenic Landscape Units, Community Separators, and Scenic Corridors. Design review is required within these areas to ensure consistency with project surroundings. Relevant General Plan policies are included below:

Goal OSRC-4: Preserve and maintain views of the night time skies and visual character of urban, rural and natural areas, while allowing for nighttime lighting levels appropriate to the use and location.

Policy OSRC-4a: Require that all new development projects, County projects, and signage utilize light fixtures that shield the light source so that light is cast downward and that are no more than the minimum height and power necessary to adequately light the proposed use.

Policy OSRC-4b: Prohibit continuous all-night exterior lighting in rural areas, unless it is demonstrated to the decision making body that such lighting is necessary for security or operational purposes or that it is necessary for agricultural production or processing on a seasonal basis. Where lighting is necessary for the above purposes, minimize glare onto adjacent properties and into the night sky.

Policy OSRC-4c: Discourage light levels that are in excess of industry and State standards.

Goal OSRC-5: Retain and enhance the unique character of each of the County's unincorporated communities, while accommodating projected growth and housing needs.

Goal OSRC-6: Preserve the unique rural and natural character of Sonoma County for residents, businesses, visitors and future generations.

Policy OSRC-6a: Develop design guidelines for discretionary projects in rural areas, but not including administrative design review for single family homes on existing lots, that protect and reflect the rural character of Sonoma County. Use the following general design principles until these Design Guidelines are adopted, while assuring that Design Guidelines for agricultural support uses on agricultural lands are consistent with Policy AR-9h of the Agricultural Resources Element.

- (1) New structures blend into the surrounding landscape, rather than stand out.
- (2) Landscaping is included and is designed to blend in with the character of the area.

- (3) Paved areas are minimized and allow for informal parking areas.
- (4) Adequate space is provided for natural site amenities.
- (5) Exterior lighting and signage is minimized.

Impacts

Methods of Analysis

The value attached to changes in visual character is largely subjective. This EIR does not assign a judgment of “good” or “bad” to a proposed change; rather, it identifies any “substantial adverse effect,” as defined below, as a significant environmental impact.

A description of the project site and the surrounding area is derived from a site visit and photographs taken of the site and surrounding areas. The County’s General Plan was reviewed to determine what visual elements have been deemed valuable by the community. The Permit Sonoma Visual Assessment Guidelines were used as guidance for analyzing and forming the visual impact analysis discussion. The impact analysis focuses on the manner in which development of the trail and staging areas could alter the visual elements or features that exist in or near the project area.

This analysis assumes that development of the project site would comply with the County’s General Plan goals and policies, and any relevant improvement standards, or trail design standards; therefore, such policies and standards are not specifically identified as mitigation.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County’s General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- 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.
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point).
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Permit Sonoma has set forth Visual Assessment Guidelines for the assessment of visual impacts in the preparation of Initial Studies and Environmental Impact Reports. The guidelines provide a procedure that first involves determining public viewing points near the project and characterizing the baseline environmental setting of the project area, then performing a photographic analysis to capture the existing project surroundings and compare them to the mass, scale, and contrast of the project. Once this is accomplished, the visual sensitivity of the project site is determined using criteria provided in the guidelines, included below in Table 3.1-1.

**Table 3.1-1
Site Sensitivity**

Sensitivity	Characteristics
Low	The site is within an urban land use designation and has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by urban development or the site is surrounded by urban zoning designations and has no historic character and is not a gateway to a community. The project site terrain has visible slopes less than 20% and is not on a prominent ridgeline and has no significant natural vegetation of aesthetic value to the surrounding community.
Moderate	The site or portion thereof is within a rural land use designation or an urban designation that does not meet the criteria above for low sensitivity, but the site has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by rural or urban development but may include historic resources or be considered a gateway to a community. This category includes building or construction sites with visible slopes less than 30% or where there is significant natural features of aesthetic value that is visible from public roads or public use areas (i.e., parks, trails etc.).
High	The site or any portion thereof is within a land use or zoning designation protecting scenic or natural resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for the community or scenic corridor. This category includes building and construction areas within the SR designation located on prominent hilltops, visible slopes less than 40% or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (i.e., parks, trails etc.). This category also includes building or construction sites on prominent ridgelines that may not be designated as scenic resources but are visible from a designated scenic corridor.
Maximum	The site or any portion thereof is within a land use or zoning designation protecting scenic resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for a designated scenic corridor. This category includes building or construction sites within the scenic resource designation on or near prominent ridgelines, visible slopes greater than 40% or where there are significant natural features of aesthetic value that are visible from a designated scenic corridor.

Source: Sonoma County Permit and Resource Management Department (Permit Sonoma), 2018.

After the visual sensitivity of the project site is determined, the guidelines require the visual dominance of the project in comparison to the project site to be assigned. The visual dominance of the project is determined by comparing the contrast of visual elements such as form, line, color, texture, and night lighting of the project with its surroundings and giving a rating of inevident, subordinate, co-dominant, or dominant. The criteria for defining the visual dominance of the project site are included in Table 3.1-2, below.

**Table 3.1-2
Visual Dominance**

Dominance	Characteristics
Dominant	Project elements are strong – they stand out against the setting and attract attention away from the surrounding landscape. Form, line, color, texture, and night lighting contrast with existing elements in the surrounding landscape.
Co-Dominant	Project elements are moderate – they can be prominent within the setting, but attract attention equally with other landscape features. Form, line, color, texture, and night lighting are compatible with their surroundings.
Subordinate	Project is minimally visible from public view. Element contrasts are weak – they can be seen but do not attract attention. Project generally repeats the form, line, color, texture, and night lighting of its surroundings.
Inevident	Project is generally not visible from public view because of intervening natural land forms or vegetation.

Source: Permit Sonoma, 2018.

Using the project site's visual sensitivity and the project's visual dominance, the guidelines state that the determination of a project's visual impact significance can be made by comparing the site sensitivity with project visual dominance using Table 3.1-3, below.

**Table 3.1-3
Thresholds of Significance for Visual Impact Analysis**

Sensitivity	Visual Dominance			
	<i>Dominant</i>	<i>Co-Dominant</i>	<i>Subordinate</i>	<i>Inevident</i>
Maximum	Significant	Significant	Significant	Less than Significant
High	Significant	Significant	Less than Significant	Less than Significant
Moderate	Significant	Less than Significant	Less than Significant	Less than Significant
Low	Less than Significant	Less than Significant	Less than Significant	Less than Significant

Source: Permit Sonoma, 2018.

Project Impacts and Mitigation Measures

3.1-1: Implementation of the proposed project may have a substantial adverse effect on a scenic vista. This would be a less-than-significant impact.

According to the County's General Plan, the project site is located adjacent to a County designated Scenic Corridor and eligible state scenic highway, SR 1. The project site also contains views of the Estero to the south and surrounding areas to the west, east and north, hillsides, rocky outcrops, stock ponds, springs, and a perennial creek that can be deemed to have high visual quality. A scenic vista is generally defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public.

As described above, Permit Sonoma Visual Assessment Guidelines contain recommendations to assist in characterizing the project site's visual sensitivity and the project's visual dominance.

Visual sensitivity is rated low, moderate, high, or maximum based on the site's land use and zoning designations, proximity to significant aesthetic features, including prominent slopes and ridgelines, and location within a Scenic Landscape Unit or visibility from a designated Scenic Corridor. Because the project site is located adjacent to a Scenic Corridor, and contains significant natural features of aesthetic value, it can be characterized as possessing high visual sensitivity.

Public views of the project site are limited and only available from SR 1 and from people boating on the Estero. The proposed project would involve constructing two approximately 5-foot-wide pedestrian-only trails, and two associated staging areas (trailheads/parking lots), not to exceed 1.5 acres in size in total combined area, to provide for low-intensity public outdoor recreational and educational uses. One staging area would be located in the northern portion of the project site near SR 1, and the other would be located south of the existing barn, as shown in Figures 2-3 and 2-4, in Chapter 2, Project Description. Staging areas would be constructed with a gravel base and concrete-paved parking stalls to enable those with disabilities access and may include portable restroom facilities, bicycle parking, picnic tables, benches, animal-proof trash and recycle containers, display case and signage. The trails would be constructed for pedestrian use only and are anticipated to be constructed of compacted native material or other permeable surface. Trail markers, posts, interpretive signs, and benches, would be placed along the trails. Trail markers would be constructed of wood or steel and would measure approximately 3-feet tall.

New fencing and gates would be installed as needed to minimize conflicts between trail users and staging areas, sensitive resources, and ranch activities. Fences and gates would be designed to match the existing on-site facilities and would include 5-wire wildlife fencing and "kissing gates" for trail users to access lands where livestock graze. The existing access road, access gate, and access bridge across central creek may also be improved or replaced in the same or similar locations. The access bridge would be replaced with weathered steel or wood and the bridge deck would be paved with asphalt or concrete. A new gate would be included at the end of the bridge in the same location as the current gate. The access road to the staging areas would also be gravel. Furthermore, interpretive, regulatory, and wayfinding signage would be provided in the staging areas, at the trailheads, at vista points along the trails, and at the Estero. All signage (including materials and size) would be constructed consistent with the Trail Easement and Conservation Easement requirements.

The proposed project involves constructing two trails and staging areas that would allow public access to observe scenic vistas and views of the rolling hillsides that characterize this area of the County. The project does not include any type of lighting and no buildings or structures would be constructed, with the exception of foot bridges and replacing the existing access bridge. The proposed trails, staging areas and associated amenities, signage, trail markers, posts, benches, fences, gates and bridges would be designed to blend in with the surroundings and would generally not be visible or create a barrier to scenic views. Views of the project site from SR 1

would include a sign at the project entrance, a more defined access road, and a gravel staging area with a possible free-standing portable restroom. The addition of these elements would not have a substantial adverse effect on a scenic vista because these elements would not dominate the viewshed. The project would be considered to have a subordinate visual dominance because the most visible project elements (access road, and staging area) would be visually consistent with the existing environment and would not attract attention. Project features would be considered low scale and would not impede views on or surrounding the project site. As the project does not include any elements that would adversely affect a scenic vista, impacts would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.1-2: Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. This is considered a less-than-significant impact.

The project site is adjacent to a segment of SR 1, a County designated Scenic Corridor and eligible state scenic highway (but not designated as a state scenic highway). The proposed project would not remove trees or rock outcroppings. As described above, the project would involve constructing two approximately 5-foot-wide pedestrian-only trails, and two associated staging areas (trailheads/parking lots), not to exceed 1.5 acres in size in total combined area, to provide for low-intensity public outdoor recreational and educational uses on the property. New fencing and gates would also be installed and the existing gate and bridge may be improved or replaced in the same or similar locations. The existing buildings on the project site would not be altered by the proposed project and improvements to the existing gate on the project site would not substantially change the visual characteristics of the gate.

The proposed northern staging area, trailhead, and access road improvements would be visible from the portion of SR 1 to the north of the site. The widened access road and the proposed replacement bridge, which would be located near the entrance to the project site, would be the most visible project elements from SR 1. The bridge would be replaced with weathered steel or wood and the bridge deck would be paved with asphalt or concrete. The access road to the staging areas would be gravel. However, these features would not have any prominent visual characteristics that would contrast with the project surroundings. As project elements would largely blend into the project surroundings, they would not detract from views as seen from SR 1; therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.1-3: Implementation of the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings (non-urbanized area). This is a less-than-significant impact.

The existing visual character of the project site is currently of undeveloped grasslands used for grazing cattle, dominated by rolling hills with a large barn within the Bordessa Ranch property visible from SR 1. The site is characterized as rural and is similar to the surrounding ranch/pasturelands. The access road on the project site provides an entrance to the site from SR 1, and ends at a large barn that includes an off-white wood exterior and a sloped metal roof. The access road is an unpaved dirt road bordered by fencing on the west side.

As described previously, the proposed project would involve constructing two 5-foot-wide pedestrian-only trails, and two associated staging areas (trailheads/parking lots), not to exceed 1.5 acres in size in total combined area. The existing access road, gate, and bridge would be improved or replaced in the same or similar locations. The access road would be widened to 12-foot wide and the access bridge would be replaced with a weathered steel or wood and the bridge deck would be paved with asphalt or concrete.

The staging/parking areas would be constructed with a gravel base and may include portable restroom facilities, bicycle parking, picnic tables, benches, trash and recycle containers, display case and signage. New fencing and gates would be installed to ensure current cattle grazing and breeding activities would not change.

The proposed trails and access road improvements would not be visually intrusive relative to existing conditions and would not interfere with or result in substantial damage to scenic resources. Land outside of the Trail Easement is included within a Conservation Easement that limits any type of development, as shown on Figures 2-3 and 2-4 in Chapter 2, Project Description. The proposed project would generally maintain the open space/grasslands on the project site, and would preserve the creeks, drainages, rock outcroppings, hillsides and grasslands that characterize the project site. The project does not include any lighting and no buildings or structures would be constructed. As described previously, the project would have subordinate visual dominance because the project would be minimally visible from any public vantage point and the proposed changes to the site would generally be visually consistent with the project surroundings. Furthermore, due to their location it is possible only small portions of the proposed trails would be visible to motorists along SR 1, and views of the project site would be fleeting along this corridor assuming vehicles are traveling at 50 to 60 miles per hour. Trail users may be visible for short periods as they traverse the trails and vehicles parked in the

northernmost staging area would also be visible to travelers along SR 1. However, these views would only be visible for a short time as vehicles driving along this stretch of the highway are assumed to be traveling over 50 miles per hour.

One of the project objectives is to provide public access to scenic resources and preservation of open space and scenic views. The project aims to protect the existing visual character and quality of the project site to the greatest extent possible. Because the project would not propose features that would substantially degrade the existing visual character or quality of the site and its surroundings, impacts would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.1-4: Implementation of the proposed project would not potentially create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The project would result in a less-than-significant impact.

The project site does not include any light sources, but within the Bordessa Ranch property exterior building lights are visible on the existing barn. Existing light sources in the project vicinity include residential uses approximately 0.5 mile to the north and east of the site and the Sonoma Coast Villa Resort & Spa, located northwest of the project site across SR 1, and vehicle headlights along SR 1. As described previously, the proposed project does not include any type of lighting or construction of buildings or structures that would produce any new source of lighting.

The project does include two staging areas that would provide parking for up to 30 vehicles. One staging area would be located across central creek near the turnoff from SR 1. The second staging area would be located over 2,000 feet further south. Daytime glare is generally associated with reflected sunlight from reflective surfaces such as glass, shiny surfaces, metal, or other reflective materials. Sunlight reflecting off parked vehicles depending upon the angle of the sun could create some daytime glare. However, the amount of glare that could be created assuming a maximum of 30 parked cars on a sunny day would be relatively minimal and would not be considered a substantial increase in glare. The proposed project would not introduce new sources of light or glare that would be considered substantial; therefore, the impact would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic scope considered for cumulative aesthetic impacts is future development within southern Sonoma County.

3.1-5: The proposed project would not contribute to significant cumulative changes in the existing visual character of the area, including the introduction of light and glare. There would be no significantly considerable cumulative contribution.

The Sonoma County General Plan EIR identified that development under the County's General Plan within the southern portion of the County would not result in significant impacts to scenic vistas, scenic resources, and the visual quality and character of the County. However, buildout of the General Plan would result in significant and unavoidable lighting impacts due to the overall projected increase in light sources within the County. Although policies outlined within the General Plan would reduce impacts related to lighting, future light sources would still result in a cumulatively significant impacts (Sonoma County 2006). The proposed project would not result in any impacts to scenic vistas, scenic resources, or the existing visual character or quality of the site. The project would not introduce new sources of light on the project site. The project would introduce the potential for parked cars to create glare given the right conditions. However, the amount of glare that could be created would be very small and would not be considerable. As the proposed project would not introduce any new sources of light, the project would not contribute to this existing cumulative impact and would have no cumulatively considerable contribution related to visual resources.

Mitigation Measures

No mitigation measures are required.

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3.2 Agricultural Resources

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential agricultural resource impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) and evaluates the potential effects on the conversion of agricultural resources associated with development and operation of the proposed trails.

Comments received in response to the Notice of Preparation (NOP) included concerns regarding potential damage to adjacent agricultural properties from trespassing; boats dragged along the trails to access the Estero Americano (Estero); unleashed dogs; potential risks to hikers from livestock; loss or harassment of cattle (and sheep) by dogs; and introduction of noxious, invasive, and non-native plants and diseases that would jeopardize crops and livestock. Commenters also expressed concerns regarding the increased risk of grass fires due to illegal campfires and smoking that could put nearby agricultural lands at risk. Issues associated with wildfires and are addressed in Section 3.11, Public Services and Safety. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included concerns associated with the close proximity of active agricultural uses and proposed recreational uses, including the potential damage to terrain, infrastructure, and livestock on these properties. Comments also indicated concerns regarding members of the public trespassing on surrounding private properties and the potential introduction of diseases and non-native species. The California Coastal Commission recommended completing a Grazing Plan that would address these concerns. As explained in Chapter 2, Project Description, the Bordessa Ranch property is under a Conservation Easement and is private land that will continue to be operated as a cattle ranch and used for cattle grazing. The Conservation Easement limits the use of the land in order to protect its conservation value. However, as mentioned, the land is still under private ownership; therefore, preparation of a Grazing Plan would not be within the scope of the County to prepare. The conservation easement requires the landowners to prepare a rangeland management plan that integrates natural resources protection goals with cattle grazing for the property. All of the other concerns raised are addressed in this section.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

This section describes the existing setting in the project area and also identifies the site's current zoning and general plan designation and its relation to agricultural resources.

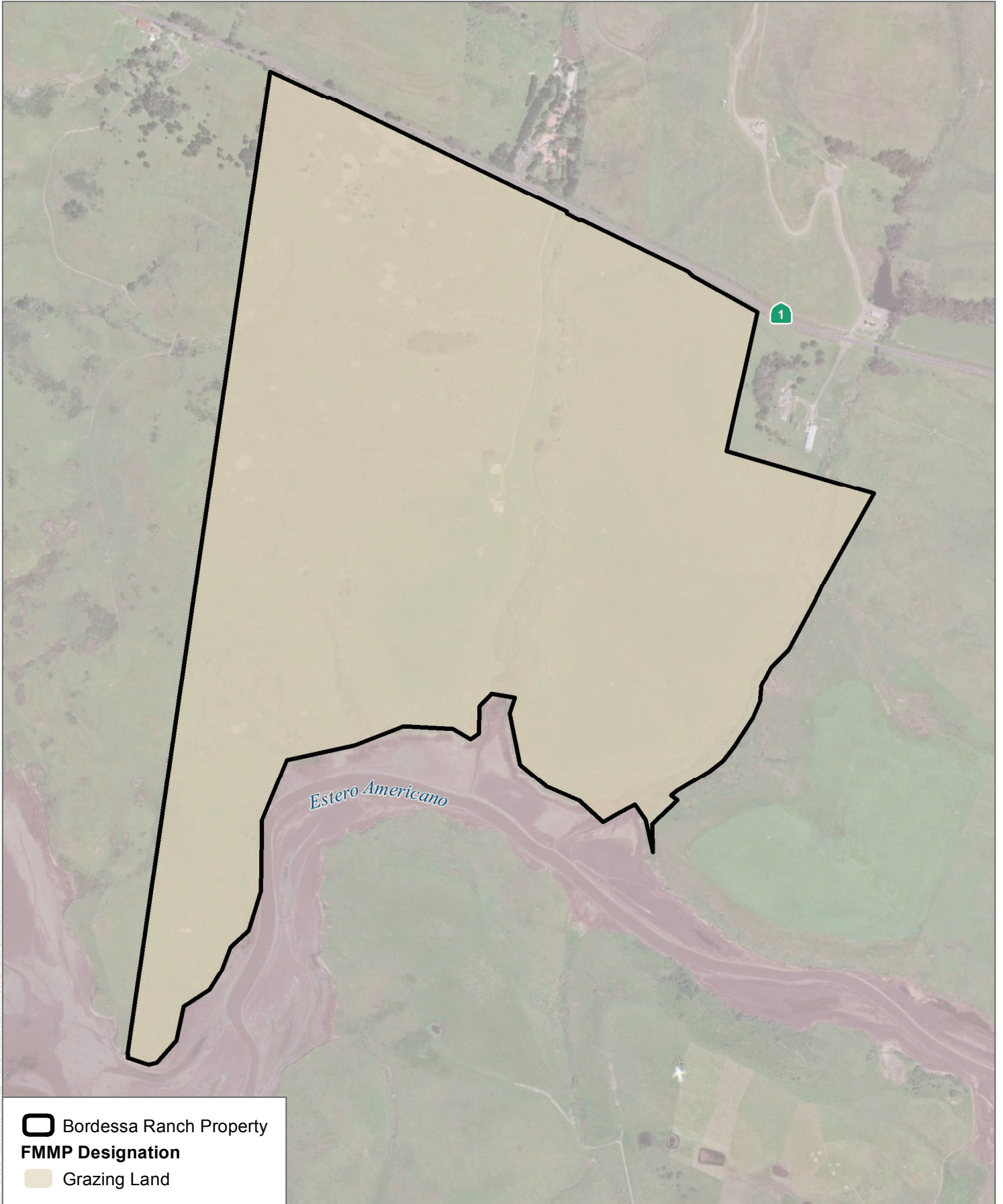
Existing Site

Farmland Classification

The Bordessa Ranch property has historically been used for grazing and is currently an active cattle ranch. The land is not irrigated and has not been used for active agriculture (other than grazing), nor does the project area contain any forestry resources. The California Department of Conservation (DOC), Division of Land Resources Protection, operates the Farmland Mapping and Monitoring Program (FMMP). The FMMP maps the state's farmland resources and monitors the conversion of farmland to (and from) other land uses. The FMMP designates the Bordessa Ranch property as Grazing Land (DOC 2017), as shown on Figure 3.2-1.

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) conducts soil surveys and creates maps representing the location and type of soil in order to aid in agricultural, conservation, and land use decisions. The NRCS identifies the following soils as occurring on the Bordessa Ranch property (NRCS 2018):

- Blucher fine sandy loam, overwash, 0 to 2 percent slopes (BcA)
- Kneeland sandy loam, sandy variant, 2 to 15 percent slopes (KsD)
- Kneeland rocky sandy loam, sandy variant, 9 to 30 percent slopes (KvE)
- Los Osos clay loam, thin solum, 30 to 50 percent slopes (LsF2)
- Steinbeck loam, 2 to 9 percent slopes (SnC)
- Steinbeck loam, 9 to 15 percent slopes (SnD)
- Steinbeck loam, 9 to 15 percent slopes, eroded (SnD2)
- Steinbeck loam, 15 to 30 percent slopes, eroded (SnE2)
- Steinbeck loam, 30 to 50 percent slopes, eroded (SnF2)



SOURCE: Bing Maps 2018; Sonoma County 2015; CA Department of Conservation 2016

FIGURE 3.2-1

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The majority of these soil types are not considered suitable for agricultural production. The Storie Index is a rating system that is used to classify soils that could be used for irrigated agriculture in California. The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production to Grade 6 soils (less than 10), which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. Soil units are also rated based on four properties: degree of soil profile development, texture of the surface layer, steepness of slope, and drainage class, landform, erosion class, flooding and ponding frequency and duration, soil pH, soluble salt content as measured by electrical conductivity, and sodium adsorption ratio (NRCS 2018). The Storie Index Ratings for soils on the Bordessa Ranch property are shown in Table 3.2-1, below.

**Table 3.2-1
Storie Index Rating and Farmland Classification**

Map unit symbol	Storie Index Rating	Percent of Property Area
BcA	Grade 2 – Good	3.0%
KsD	Grade 3 – Fair	25.9%
KvE	Grade 4 – Poor	8.7%
LsF2	Grade 4 – Poor	17.3%
SnC	Grade 2 – Good	4.7%
SnD	Grade 2 – Good	8.5%
SnD2	Grade 3 – Fair	11.8%
SnE2	Grade 3 – Fair	5.3%
SnF2	Grade 4 – Poor	14.7%

Source: NRCS 2018.

As shown in Table 3.2-1, the majority of the Bordessa Ranch property, approximately 83.8%, contains soils that are classified as fair or poor for irrigated agricultural production. Furthermore, the areas with soil units that are classified as good for irrigated agricultural production are outside of the designated Trail Easement and would not be disturbed. In addition, the land is not irrigated and has historically, and presently, been used for grazing.

The Bordessa Ranch property is not under a Williamson Land Act contract, does not contain any forest or timberland, and is not zoned for forest land, timberland, or timberland production, as defined in the California Public Resources (PRC) Code and Government Code. California PRC Section 12220(g) defines “forest land” for the purposes of CEQA as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

California Government Code Section 51104(g) defines “Timber,” “Timberland,” and “Timberland Production Zone” for the purposes of CEQA as either trees of any species maintained for eventual harvest for forest production purposes (“Timber”); privately owned land, or land acquired for State forest purposes, used for growing and harvesting timber (“Timberland”); or “Timberland Production Zone” which means an area zoned and used for growing and harvesting timber.

Existing Land Use Designation and Zoning

The Bordessa Ranch property is designated in the Sonoma County General Plan 2020 and zoning code for Land Extensive Agriculture (Sonoma County 2016). Portions of the site are within the Riparian Corridor (RC) and Scenic Resource (SR) combining districts.

There are also two easements that overlay the Bordessa Ranch property: a Conservation Easement and a Trail Easement. The Conservation Easement covers the entire Bordessa Ranch property (see Figure 3.9-1, in Section 3.9, Land Use and Planning). The purpose of the Conservation Easement is to preserve and protect the conservation values of the property, including natural resources, habitat connectivity, open space and scenic views, agricultural resources, and recreation and education. The purpose of the Trail Easement is to ensure that trails and associated staging areas are established and made available to the public in perpetuity for low-intensity public outdoor recreational and educational purposes consistent with the purpose of the Conservation Easement to preserve and protect natural resources, habitat connectivity, open space and scenic views, and agricultural resources.

Regulatory Setting

Federal Regulations

There are no federal regulations related to agricultural resources that apply to the proposed project.

State Regulations

The following state regulations pertaining to agricultural resources would apply to the proposed project.

California Civil Code Section 3482.5

Section 3482.5 of the California Civil Code specifies that no agricultural activity, operation, or facility that is conducted properly in the same location for more than three years shall be considered a nuisance to new uses in its vicinity, unless it was considered a nuisance since the time it began. This regulation also applies to activities of a district agricultural association.

Williamson Act

The Williamson Act (California Government Code § 51200), also known as the California Land Conservation Act of 1965, is the premier legislation for the protection of agricultural land in California. The act underscores the importance of preserving a maximum amount of the state's agricultural land as an economic asset that provides for the generation of adequate and nutritious food resources for the nation and state into the future. The Williamson Act operates through 10-year contracts with agricultural landowners that confirm that agricultural land is being preserved as the land's best use while providing a substantial property tax break for the landowner. The property's agricultural value is assessed and the landowner under contract is dismissed from property taxes according to the property's urban development potential.

After the 10-year contract period, the contract is automatically renewed unless the landowner submits a notice of nonrenewal with the County.

Farmland Mapping and Monitoring Program

The FMMP is a non-regulatory program implemented by the California Department of Conservation, Division of Land Resource Protection. Government Code § 65570 mandates FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and to provide maps and data to local government and the public. FMMP produces Important Farmland Maps, which are a hybrid of resource quality (soils) and land use information, based on the prior federal Natural Resource Conservation Service program. Land is classified into eight categories. Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are considered "Important Farmland" for the purposes of CEQA (the conversion of which may be a significant impact).

Local Regulations

The following local/regional regulations pertaining to agriculture would apply to the proposed project.

Sonoma County General Plan 2020

The Open Space and Resource Conservation Element and the Agricultural Resources Element of the Sonoma County General Plan 2020 (Sonoma County 2016) provide objectives, policies, and programs regarding agricultural and forestry resources, including the following:

Goal OSRC-10: Encourage the conservation of soil resources to protect their long term productivity and economic value.

Policy OSRC-10a: Apply the "Land Intensive Agriculture", "Land Extensive Agriculture", and "Diverse Agriculture" land use categories to areas with productive agricultural soils.

Goal AR-4: Allow farmers to manage their operations in an efficient, economic manner with minimal conflict with nonagricultural uses.

Policy AR-4a: The primary use of any parcel within the three agricultural land use categories shall be agricultural production and related processing, support services, and visitor serving uses. Residential uses in these areas shall recognize that the primary use of the land may create traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals.

Policy AR-4d: Apply the provisions of the Right to Farm Ordinance to all lands designated within agricultural land use categories.

Policy AR-4e: Recognize provisions of existing State nuisance law (Government Code Section 3482.5).

Sonoma County Right to Farm Ordinance

Chapter 20, Article II of the Sonoma County Municipal Code, known as the Sonoma County Right to Farm Ordinance, protects agricultural operations on agricultural land within the unincorporated area of the County by limiting the circumstances under which agricultural operations may be deemed to constitute a nuisance. The Right to Farm Ordinance requires owners of agricultural land to notify neighbors of the inherent potential problems associated with being located near such operations. This notification requirement is intended to ensure that neighbors adjacent to agricultural operations are better informed about the consequences of properly conducted agricultural operations.

Impacts

Methods of Analysis

The County's General Plan, General Plan Final EIR, and DOC FMMP were all reviewed to establish the existing land use designations, zoning, and farmland status and to determine potential impacts to agricultural land associated with project construction and operation.

As noted in Chapter 3, Introduction to the Analysis, impacts of the existing environment on a project or plan (as opposed to impacts of a project or plan on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project" (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473 and *California Building Industry Association v. Bay area Air Quality Management District* (2015) Cal.App 4th.). However, information pertaining to potential impacts associated with the environment on the project is included for informational purposes.

Due to numerous concerns raised from the public regarding potential risks to hikers from proximity to livestock, damage to adjacent agricultural properties from trespassing, and introduction of noxious, invasive, and non-native plants and diseases that would jeopardize crops and livestock, these concerns, although not required to be evaluated under CEQA are further addressed under Impact 3.2-4.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (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.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Significance Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable and therefore, are not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

The project site does not include forest lands, or land zoned for forest land or timberland, nor does the project site contain an active Williamson Act contract; therefore, there would be no impacts to forest or timberland resources or removal of a Williamson Act contract. Thus, these issues are not further evaluated.

Concerns Raised Not Under the Purview of CEQA

This EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the proposed project. CEQA allows agencies and members of the public an opportunity to identify relevant environmental issues to be

further evaluated in an EIR during the 30-day NOP public comment period. Comments received from the public raised concerns regarding potential conflicts between trail users and on-site cattle and the potential for crop contamination. Although these issues are not included in Appendix G of the CEQA Guidelines and the County has no adopted thresholds to evaluate these concerns, a discussion of these issues is included for informational purposes under Impact 3.2-4.

Project Impacts and Mitigation Measures

3.2-1: The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. This is a less-than-significant impact.

As described above, the FMMP designates the Bordessa Ranch property as Grazing Land (DOC 2017). Although Grazing Land is considered agricultural land under Public Resources Code Section 21060, it is not considered Prime, Unique, or Farmland of Statewide Importance. The Bordessa Ranch property is currently used as grazing land for cattle and is an active cattle ranch. Therefore, development of trails within the Trail Easement is not expected to result in conversion of Farmland to non-agricultural uses.

The proposed project would construct two pedestrian-only trails and two associated staging areas (trailheads/parking lots) consistent with the Trail Easement. No dogs, bikes, or equestrians would be allowed on the trails. The project would provide for low-intensity public outdoor recreational and educational uses on the portion of the property consistent with the Trail Easement and the site's underlying Conservation Easement. These uses include hiking, nature study, bird watching, sightseeing, picnicking, outdoor education, docent-led tours, scientific research and observation, and other similar uses. These low-intensity activities, implemented in accordance with the mitigation measures included in this EIR, would not adversely impact the natural resources or grazing activities on the property. Trail markers, posts, and interpretive signs, consistent with the requirements set forth in the Trail Easement, would include wayfinding, and maps as well as signage explaining the "rules" of access would be provided at both staging areas and at the trailheads. Language on the signs would include information explaining that the property is an active cattle ranch and not to interfere with the livestock. No dogs or horses (pets) would be allowed on the project site; eliminating threats to livestock due to livestock encounters with pets or pet disease transmission.

The proposed project, specifically the trails, is considered compatible with existing cattle operations on the project site and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, impacts to Farmland would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.2-2: The proposed project would not conflict with existing zoning for agricultural use. This is a less-than-significant impact.

The proposed trail corridors, staging areas and access road are located within the Bordessa Ranch property that is designated in the Sonoma County General Plan 2020 and zoning code for Land Extensive Agriculture Coastal District (Sonoma County 2016). The intent of the Land Extensive Agriculture Coastal District is to protect lands suited for agriculture use and the raising, feeding, maintaining and breeding of farm animals are activities allowed within this zone (Article III Section 26C-31). The proposed project would convert less than 10 acres to trails and staging/parking areas (approximately 4.8 acres would be required for the two five-foot wide trails and 1.5 acres for the staging areas), which are allowed uses and activities within the Land Extensive Agriculture Coastal District. Cattle grazing would continue on the site consistent with the underlying zoning and the project would not introduce any uses that would conflict with the existing land use and zoning designation (see Section 3.9, Land Use and Planning). The project would not conflict with the underlying zoning that allows agricultural activities, including cattle grazing. Impacts would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.2-3: The proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. This is a less-than-significant impact.

The proposed project would construct two approximately 5-foot-wide pedestrian-only trails (within a 50-foot-wide Trail Corridor) and two associated staging/parking areas on the project site. As discussed above under Impact 3.2-1, the proposed low-intensity outdoor recreational uses are compatible with livestock grazing on site and would not introduce uses that would encourage the conversion of surrounding lands to developed uses. In addition, only a portion of the project site includes designated Trail Corridors and Staging Areas under the Trail Easement. The majority of the site is protected from development pursuant to the Conservation Easement that overlays the entire Bordessa Ranch property. Thus, the project would not cause other changes that would result in conversion of Farmland to non-agricultural use. Therefore, a **less-than-significant impact** would occur.

Mitigation Measures

No mitigation measures are required.

3.2-4: The proposed project would introduce trail users in close proximity to cattle grazing that could result in potential conflicts, and may contribute to the potential for crop contamination. This is considered a less-than-significant impact.

Trail Users and Cattle

Although the County does not typically evaluate potential conflicts between trail users and cattle, and the potential for crop contamination when reviewing proposed trail projects, due to public comments received in response to the NOP these concerns are addressed. Many trails throughout Sonoma County and other surrounding counties are located on lands where active cattle grazing occurs, such as Taylor Mountain Regional Park & Preserve (Taylor Mountain), a regional park located in north-central Sonoma County. This regional park has historically been used for ranching and successfully accommodates recreational uses in areas currently used for cattle grazing. County Regional Parks (Regional Parks) has not identified any issues with trail users affecting cattle, or alternatively, experienced minimal issues of cattle potentially harming trail users. From July 1, 2014 through June 30, 2018, over 624,000 people visited Taylor Mountain and Regional Parks has received no reports of conflicts between cattle and the public (pers comm. Karen Davis-Brown April 2019). Prior to 2014, there were two reports of potential conflicts one was between a dog and a bull and the other was between an equestrian and a cow. The proposed project strictly prohibits dogs or horses on the trails or the staging areas.

Recreational uses on or near grazing lands are common within California, and there is evidence that shared land between cattle and recreationists pose minimal issues. Wolf, et. al. (2017), conducted an extensive literature review that examined the interactions between livestock grazing on publicly owned recreational lands and recreationists, identified potential areas of conflict, and outlined management strategies that are used for beneficial livestock-recreationist interactions (Wolf, et. al. 2017). According to the research, over 700 million acres of public and private rangelands within the United States also support some type of recreation uses. The study focuses on California's coastal range, because this area contains many instances of grazing land and recreation land interface. The study found that in the majority of parks within California where livestock interact with recreationists, negative interactions with the public are rare. The study further stated that, as an example, only four to five serious cow attacks occur each year within the East Bay Regional Park District (EBRPD), where approximately 15 million recreationists visit parks annually and 8,000-10,000 cattle graze nearby. It is not known if any of these attacks included dogs, which are allowed on trails in the EBRPD. In addition, within the San Francisco Bay Area parks, less than 7 visitors each year, out of approximately 2 million park visitors, experience negative interactions with livestock. The study mentions that educational signage that

informs trail users of measures for safe interactions with livestock can be effective in preventing negative livestock-recreationist interactions. Furthermore, recreational uses can have a positive impact on nearby agricultural operations by attracting more people that can alert neighbors or law enforcement in the event of an emergency or illegal activity (Wolf et. al. 2017).

Research conducted by the Santa Barbara County Trails Council (SBCTC) also reaffirms the low rate of negative livestock-recreationist interactions when these uses are located near each other (SBCTC 2014). The study conducted by SBCTC compiled information gathered from organizations and land management groups throughout California that manage lands where recreational access is granted on grazing lands. The experts interviewed for this study unanimously agreed that there have been minimal negative livestock-recreationist interactions within recreational uses, with the majority of interactions being positive. The study concluded that public access and trails are compatible with grazing (SBCTC 2014). Lastly, an article by Sheila Barry, Natural Resources Advisor for the University of California Cooperative Extension, describes the experience of the EBRPD after they implemented a system for recreationists to report incidents with aggressive livestock. Over the four year time span during which data was collected, only 18 incidents were reported for the 55,516 acres of grazing land with public access. The article concluded that livestock grazing and public access and recreation appear to be compatible (Barry 2009). Therefore, the preponderance of evidence indicates that negative livestock-recreationist interactions are rare and often only occur when cattle are provoked.

The Sonoma County Farm Bureau (SCFB) is charged with protecting agricultural interests within the County. The SCFB has raised concerns in the past regarding the potential adverse effects of recreational uses located near agricultural activities. In response to the Draft Sonoma County Recreation Plan (Sonoma County 2003), which forms a basis for the planning, acquisition, management, and funding of outdoor recreation facilities within unincorporated Sonoma County, the SCFB responded with concerns related to issues such as the potential for public recreation to increase wildfire hazards, trespass and public safety concerns, crop contamination, conflicts with pesticide and fertilizer use, and agricultural landowner insurance and liability. These issues, outlined in the SCFB's February 10, 1997 letter were addressed through a series of workshops hosted by Regional Parks and led by panelists who were selected based on their respective area of expertise. Several of the issues discussed during these workshops are related to concerns regarding the proximity of agricultural uses to the proposed project. For this reason, and because these workshops are pertinent to all recreational projects within the unincorporated County, an overview of the workshop findings are summarized below.

Crop Contamination

Contamination of crops with diseases and pesticide and fertilizer exposure to trail users was another concern raised by the SCFB. The SCFB provided root rot as an example of a contaminant that could easily be transferred from hikers to nearby agricultural areas. However, the mechanism through which root rot spreads makes it an unlikely candidate to spread to nearby agricultural areas (Sonoma County 2003). Furthermore, because trail users would be confined to trails, it is unlikely that contamination or disease could be spread to adjacent private properties. In addition, non-native plants are far more likely to be spread by cattle than by trail users. Because the Bordessa Ranch property already experiences cattle grazing and the surrounding natural environment and agricultural uses have already been exposed to nearby grazing activities, it is unlikely that trail users would substantially increase the spread of invasive species to nearby agricultural areas.

The proposed project would allow trail users to share the same area as cattle that use the site for grazing, but as Regional Parks has noted they have not experienced issues with trail users affecting cattle, or alternatively, minimal issues of cattle potentially harming trail users. Therefore, the proposed project would not pose a conflict between trail users and cattle.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic scope considered for cumulative agricultural and forestry impacts is buildout of Sonoma County.

3.2-5: The proposed project would not contribute to cumulative impacts associated with the loss or conversion of existing agricultural resources. There would be no significant cumulative contribution.

As described above, the Bordessa Ranch property is designated as Grazing Land by the FMMP, which is not considered Important Farmland by Sonoma County for the purposes of CEQA or under Public Resources Code Section 21060 (DOC 2017). The County's General Plan EIR did not identify any cumulative significant impacts related to future loss or conversion of agricultural resources. The proposed project would construct two pedestrian-only trails and two associated staging areas (trailheads/parking lots) within a designated Trail Easement. The Bordessa Ranch property would retain its existing agricultural uses, and the proposed project would not interfere with existing cattle ranching operations. The proposed project would not convert agricultural land to non-agricultural uses. Therefore, the proposed project would not contribute to an existing cumulative impact.

Mitigation Measures

No mitigation measures are required.

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3.3 Air Quality

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential air quality impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). The analysis and findings are based on the air quality emissions modeling conducted for the project. This section presents the environmental setting and existing air quality conditions, regulatory framework, potential short-term and long-term air quality impacts, and proposed measures to mitigate any identified significant impacts.

No comments were received that raised concerns regarding air quality in response to the Notice of Preparation (NOP). Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included concerns associated with the analysis of regional pollutant impacts. A comment letter expressed concern that the thresholds of significance could be exceeded for construction or maintenance activities, and that cumulative impacts would not be significant. The commenter also stressed the importance of specific performance criteria for fugitive dust control. All of these issues are addressed in this section. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR. The results of the modeling conducted for the project and the model outputs can be found in Appendix B.

Environmental Setting

The project site is located in the County of Sonoma (County), within the boundaries of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB encompasses all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, and the southern portions of Solano and Sonoma counties.

Air pollutants are emitted by a variety of sources, including mobile sources (vehicles), area sources (hearths (fireplaces), consumer product use, architectural coatings, and landscape maintenance equipment), energy sources (natural gas), and stationary sources (generators or other stationary equipment). Some air pollutants need to be examined at the local level, and others are predominately an issue at the regional level. For instance, ozone (O₃) is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving oxides of nitrogen (NO_x) and reactive organic gas (ROG) (also termed volatile organic compounds). Because these reactions are broad-scale in effects, O₃ is typically analyzed at the regional level

(i.e., in the Air Basin) rather than the local level. On the other hand, air pollutants such as coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), and toxic air contaminants (TACs) are a potential concern in the immediate vicinity of the pollutant source because the pollutants are emitted directly by or are formed close to the source. Therefore, the study area for emissions of PM₁₀, PM_{2.5}, CO, and TACs is the local area near the source, such as in the vicinity of the project site, and the study area for regional pollutants such as NO_x and ROGs is the entire SFBAAB.

Regional Climatology

Air quality is a function of the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently affect air quality.

The climate of the SFBAAB is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the west coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing more storms to pass through the region. During summer and early fall, when few storms pass through the region, emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as O₃, and secondary particulates, such as nitrates and sulfates.

The project site is located in the Cotati and Petaluma Valleys climatological subregion that stretches from Santa Rosa to the San Pablo Bay. Specific topographic and climatological conditions for the subregion are described in the Bay Area Air Quality Management District's (BAAQMD) California Environmental Quality Act Air Quality Guidelines (BAAQMD 2017a). Wind patterns in the Petaluma and Cotati Valleys are strongly influenced by the Petaluma Gap, with winds flowing predominantly from the west. As marine air travels through the Petaluma Gap, which is the region from the Estero Lowlands to the San Pablo Bay, it splits into northward and southward paths moving into the Cotati and Petaluma valleys. The southward path crosses San Pablo Bay and moves eastward through the Carquinez Strait. The northward path contributes to Santa Rosa's prevailing winds from the south and southeast. Petaluma's prevailing winds are from the northwest (BAAQMD 2017a).

When the ocean breeze is weak, strong winds from the east can predominate, carrying pollutants from the Central Valley and the Carquinez Strait. During these periods, upvalley flows can carry the polluted air as far north as Santa Rosa. Winds are usually stronger in the Petaluma Valley than the Cotati Valley because the former is directly in line with the Petaluma Gap. Petaluma's climate is similar to areas closer to the coast even though Petaluma is 28 miles inland from the ocean. Average annual wind speed at the Petaluma Airport is 7 miles per hour

(mph). The Cotati Valley, being slightly north of the Petaluma Gap, experiences lower wind speeds. The annual average wind speed in Santa Rosa is 5 mph (BAAQMD 2017a). Generally, air pollution potential is low in the Petaluma Valley because of its link to the Petaluma Gap and because of its low population density. The two scenarios which could produce elevated pollutant concentrations includes stagnant conditions in the morning hours created when a weak ocean breeze meets a weak bay breeze and an eastern or southeastern wind pattern in the afternoon brings in pollution from the Carquinez Strait Region and the Central Valley (BAAQMD 2017a).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O₃, nitrogen dioxide (NO₂), CO, sulfur dioxide (SO₂), PM₁₀, PM_{2.5}, and lead (Pb). These pollutants, as well as TACs, are discussed in the following paragraphs.¹ In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O₃ is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O₃ precursors. These precursors are mainly NO_x and ROG. The maximum effects of precursor emissions on O₃ concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O₃ formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O₃ exists in the upper atmosphere O₃ layer (stratospheric ozone) and at Earth's surface in the lower atmosphere (tropospheric ozone).² The O₃ that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O₃ is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O₃. Stratospheric, or "good," O₃ occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering Earth's atmosphere. Without the protection of the beneficial stratospheric O₃ layer, plant and animal life would be seriously harmed.

O₃ in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O₃ at levels typically observed in Southern California can result in breathing pattern

¹ The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's Criteria Air Pollutants (2016) and the CARB Glossary of Air Pollutant Terms (2016).

² The troposphere is the layer of Earth's atmosphere nearest to the surface of Earth, extending outward approximately 5 miles at the poles and approximately 10 miles at the equator.

changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide. NO₂ is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO₂ in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x plays a major role, together with ROG, in the atmospheric reactions that produce O₃. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO₂ is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO₂ are coal and oil used in power plants and industries; as such, the highest levels of SO₂ are generally found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels.

SO₂ is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO₂ can injure lung tissue and reduce visibility and the level of sunlight. SO₂ can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM_{2.5} and PM₁₀ represent fractions of particulate matter. Coarse particulate matter (PM₁₀) is about 1/7 the thickness of a human hair. Major sources of PM₁₀ include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Dust is generated on the project site through vehicles driving on the gravel/dirt access road and from livestock. Fine particulate matter (PM_{2.5}) is roughly 1/28 the diameter of a human hair. PM_{2.5} results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and ROG.

PM_{2.5} and PM₁₀ pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM_{2.5} and PM₁₀ can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. PM₁₀ tends to collect in the upper portion of the respiratory system, whereas PM_{2.5} is small enough to penetrate deeper into the lungs and damage lung tissue. Suspended particulates also produce haze and reduce regional visibility and damage and discolor surfaces on which they settle.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM₁₀ and PM_{2.5} (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease,

and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO₂ in the atmosphere. Sulfates can result in respiratory impairment, as well as reduced visibility.

Reactive Organic Gases. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O₃ are referred to and regulated as ROG. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of ROG result from the formation of O₃ and its related health effects. High levels of ROG in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for ROG as a group.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. Due to presence of cattle throughout the project site odors currently exist.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Children, pregnant women, older adults, and people with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered "sensitive receptors" include residences, schools, day care centers, playgrounds, and medical facilities. The nearest sensitive receptors are similar ranches with residences located approximately 1,000 feet east of the proposed East Trail boundary.

Regulatory Setting

Federal Regulations

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutants (HAPs) standards; approving state attainment plans; setting motor vehicle emissions standards; issuing stationary source emissions standards and permits; and establishing acid rain control measures, stratospheric O₃ protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of citizens of the nation. The NAAQS (other than for O₃, NO₂, SO₂, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O₃, NO₂, SO₂, PM₁₀, and PM_{2.5} are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

At the federal level, TACs are identified as HAPs. The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State Regulations

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management

districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, PM_{2.5}, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

An area is designated as “in attainment” when it is in compliance with the federal and/or state standards. The NAAQS, CAAQS, and attainment classifications for the criteria pollutants are outlined in Table 3.3-1.

**Table 3.3-1
State and Federal Ambient Air Quality Standards and Attainment Status**

Pollutant	Averaging Time	California Standards ^a		National Standards ^b	
		Standard	Attainment Status	Standard	Attainment Status
Ozone (O ₃)	1 hour	0.09 ppm	N	NA	NA
	8 hour	0.07 ppm	N	0.070 ppm	N/Marginal ^c
Carbon Monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	NA	0.053 ppm	A
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	A	0.075 ppm	A
	24 hour	0.04 ppm	A	0.14 ppm	A
	Annual	NA	NA	0.03 ppm	A
Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	N	150 µg/m ³	U
	Annual	20 µg/m ³	N	NA	NA
Fine Particulate Matter (PM _{2.5})	24 hour	NA	NA	35 µg/m ³	N ^d
	Annual	12 µg/m ³	N	12 µg/m ³	U/A ^e
Sulfates	24 hour	25 µg/m ³	A	NA	NA
Lead	30 day	1.5 µg/m ³	NA	NA	A
	Cal. Quarter	NA	NA	1.5 µg/m ³	A
	Rolling 3-Month Average	NA	NA	0.15 µg/m ³	U/A

**Table 3.3-1
State and Federal Ambient Air Quality Standards and Attainment Status**

Pollutant	Averaging Time	California Standards ^a		National Standards ^b	
		Standard	Attainment Status	Standard	Attainment Status
Hydrogen Sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8 hour	See Note "f"	U	NA	NA

Source: BAAQMD 2017b.

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $\text{PM}_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; ppm = parts per million by volume; A = Attainment; N = Nonattainment; U = Unclassified; NA = Not Applicable (no applicable standard)

^a California standards for O_3 , CO, SO_2 (1-hour and 24-hour), NO_2 , suspended particulate matter (PM_{10} , $\text{PM}_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards shown are the "primary standards" designed to protect public health. NAAQS (other than O_3 , NO_2 , SO_2 , particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10} , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than 1. For $\text{PM}_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

^c On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

^d On January 9, 2013, the EPA issued a final rule to determine that the Bay Area attains the 24-hour $\text{PM}_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $\text{PM}_{2.5}$ standard until such time as the BAAQMD submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

^e In December 2012, the EPA strengthened the annual $\text{PM}_{2.5}$ NAAQS from 15.0 to 12.0 $\mu\text{g}/\text{m}^3$. In December 2014, EPA issued final area designations for the 2012 primary annual $\text{PM}_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

^f Statewide visibility reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70%. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

The SFBAAB is designated as a nonattainment area for federal and state O_3 and $\text{PM}_{2.5}$ standards. The SFBAAB is also designated as a nonattainment area for the state PM_{10} standards. The SFBAAB is designated as "unclassified" or "attainment" for all other criteria air pollutants. Notably, "unclassified" areas cannot be classified based on available information as meeting or not meeting the ambient air quality standard for the pollutant.

Local Regulations

Bay Area Air Quality Management District

The BAAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SFBAAB, where the project site is located. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of

ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal and California Clean Air Acts.

On April 19, 2017, the BAAQMD adopted the *Spare the Air: Cool The Climate Final 2017 Clean Air Plan* (2017 Clean Air Plan - BAAQMD 2017c). The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Air Plan includes all feasible measures to reduce emissions of O₃ precursors (ROG and NO_x) and reduce O₃ transport to neighboring air basins. In addition, the 2017 Clean Air Plan builds on BAAQMD efforts to reduce PM_{2.5} and TACs. To protect the climate, the Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those greenhouse gas reduction targets.

BAAQMD establishes and administers a program of rules and regulations to attain and maintain state and national air quality standards and regulations related to TACs. The rules and regulations that may apply to the proposed project include the following:

- **Regulation 2, Rule 1 – Permits.** This rule specifies the requirements for authorities to construct and permits.
- **Regulation 6, Rule 1 – Particulate Matter.** This rule limits the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions, and opacity.
- **Regulation 8, Rule 1 – General Provisions.** This rule limits the emission of organic compounds into the atmosphere.

Sonoma County General Plan 2020

The Open Space and Resource Element of the Sonoma County General Plan (Sonoma County 2016) provides objectives, policies, and programs regarding Air Quality, including the following:

Goal OSRC-16: Preserve and maintain good air quality and provide for an air quality standard that will protect human health and preclude crop, plant, and property damage in accordance with the requirements of the Federal and State Clean Air Acts.

Objective OSRC-16.1: Minimize air pollution and greenhouse gas emissions.

Policy OSRC-16c: Refer projects to the local air quality districts for their review.

Regional and Local Air Quality

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The BAAQMD monitors local ambient air quality at the proposed project site. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2014 to 2016 are presented in Table 3.3-2. The Sebastopol monitoring station, located at 103 Morris Street, Sebastopol, CA 95472, is the nearest air quality monitoring station to the project site, located approximately 9.2 miles to the southwest. Air quality data for O₃, NO₂, CO, and PM_{2.5} from the Sebastopol monitoring station monitoring station are provided in Table 3.3-2. Because SO₂ and PM₁₀ are not monitored at the Sebastopol monitoring station, SO₂ measurements were taken from the Vallejo monitoring station (304 Tuolumne Street, California 94590, approximately 42.3 miles southeast from the project site). The air quality data for PM₁₀ measurements were taken from the Guerneville monitoring station (16255 First Street, California 95446, approximately 12 miles south from the project site). The data collected at these stations are considered generally representative of the air quality experienced in the project vicinity. The number of days exceeding the ambient air quality standards is also shown in Table 3.3-2.

**Table 3.3-2
Local Ambient Air Quality Data**

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	2015	2016	2014	2015	2016
<i>Ozone (O₃)</i>										
Sebastopol-103 Morris Street	ppm	Maximum 1-hour concentration	State	0.09	0.067	0.068	0.073	0	0	0
	ppm	Maximum 8-hour concentration	State	0.070	0.061	0.062	0.064	0	0	0
Federal			0.070	0.062	0.063	0.065	0	0	0	
<i>Nitrogen Dioxide (NO₂)</i>										
Sebastopol-103 Morris Street	ppm	Maximum 1-hour concentration	State	0.18	0.036	0.067	0.031	0	0	0
			Federal	0.100	0.037	0.032	0.0545	0	0	0
	ppm	Annual concentration	State	0.030	0.004	0.004	0.004	—	—	—
			Federal	0.053	—	—	—	—	—	—
<i>Carbon Monoxide (CO)</i>										
Sebastopol-	ppm	Maximum 1-	State	20	—	—	—	—	—	—

**Table 3.3-2
Local Ambient Air Quality Data**

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	2015	2016	2014	2015	2016
103 Morris Street		hour concentration	Federal	35	1.4	1.3	1.6	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	—	—	—	—	—	—
			Federal	9	0.9	0.9	1.0	0	0	0
<i>Sulfur Dioxide (SO₂)</i>										
Vallejo-304 Tuolumne Street	ppm	Maximum 1-hour concentration	Federal	0.075	0.024	0.005	0.010	0	0	0
	ppm	Maximum 24-hour concentration	Federal	0.14	0.002	0.002	0.002	0	0	0
	ppm	Annual concentration	Federal	0.030	0.0007	0.0007	0.0007	0	0	0
<i>Coarse Particulate Matter (PM₁₀)^a</i>										
Guerneville-Church and 1 st	µg/m ³	Maximum 24-hour concentration	State	50	42.3	56.7	45.0	0.0 (0)	2.0 (2)	0.0 (0)
			Federal	150	38.9	56.5	43.2	0.0 (0)	ND (0)	ND (ND)
	µg/m ³	Annual concentration	State	20	14.8	17.3	ND	—	—	—
<i>Fine Particulate Matter (PM_{2.5})^a</i>										
Sebastopol-103 Morris Street	µg/m ³	Maximum 24-hour concentration	Federal	35	26.2	29.9	18.7	0.0 (0)	0.0 (0)	0.0 (0)
	µg/m ³	Annual concentration	State	12	ND	ND	4.9	—	—	—
			Federal	12.0	ND	ND	6.5	—	—	—

Sources: CARB 2017; EPA 2018.

Notes: '—' = data not available; µg/m³ = micrograms per cubic meter; ND = insufficient data available to determine the value; ppm = parts per million
Data taken from CARB iADAM (<http://www.arb.ca.gov/adam>) and EPA AirData (<http://www.epa.gov/airdata/>) represent the highest concentrations experienced over a given year.

Exceedances of federal and state standards are only shown for O₃ and particulate matter. Daily exceedances for particulate matter are estimated days because PM₁₀ and PM_{2.5} are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM₁₀, or 24-hour SO₂, nor is there a state 24-hour standard for PM_{2.5}.

Sebastopol Monitoring Station is located at 103 Morris Street, Sebastopol, California 95472.

Vallejo Monitoring Station is located at 304 Tuolumne Street, Vallejo, California 94590.

Guerneville Monitoring Station is located at 16255 First Street, Guerneville, California 95446.

^a Measurements of PM₁₀ and PM_{2.5} are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

Impacts

Methods of Analysis

Construction

Emissions from the construction of the trails, access road, staging areas, and bridge were estimated using the CalEEMod Version 2016.3.2 model. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the County and CalEEMod generated default values. Complete detailed construction assumptions are included in Appendix B.

Implementation of the project would include the construction of two 5-foot-wide pedestrian or hikers use only trails (West Trail and East Trail), up to a cumulative maximum of 5 miles in length, and two associated staging areas (trailheads/parking lots), not to exceed 1.5 acres in size in total combined area. Notably, for purposes of this analysis construction activities were conservatively assumed to disturb two 50 foot-wide corridors within the project site where the trails would be located.

Furthermore, the existing access road, gate, and bridge would be improved or replaced in the same or similar locations. The access road would be widened to 12-foot wide, re-graded with a gravel base, and turnouts may be provided, as necessary for two-way traffic. The bridge would be replaced and paved with asphalt or concrete.

The East Trail heads south to the Estero Americano (Estero). Boater access to the Estero would be provided through placement of a removable matt system that would allow non-motorized boats (i.e., kayaks, canoes) easy access to the water's edge of the Estero.

For purposes of estimating project emissions, and based on information provided by County, it is assumed that construction of the project would occur over an approximately 3 to 4 year period. For the purposes of the analysis it was assumed construction would begin in May 2020; however, this date is arbitrary and if construction commenced in 2020 or later the analysis of construction emissions would not change. Construction activities would occur from May through October each year. The analysis contained herein is based on the following assumptions as shown in Table 3.3-3 (duration of phases is approximate):

**Table 3.3-3
Construction Phasing Assumptions Schedule**

Phase	Start Date	End Date	Duration
<i>West Trail</i>			
Site preparation (clearing and grubbing)	05/01/2020	07/31/2020	3 months

**Table 3.3-3
Construction Phasing Assumptions Schedule**

Phase	Start Date	End Date	Duration
Grading	08/01/2020	11/02/2020	5 months
	05/01/2021	06/30/2021	
Trail construction (installation of wet crossings/foot bridges)	07/01/2021	07/21/2021	3 weeks
Paving (application of gravel base parking lots)	07/22/2021	07/28/2021	1 week
Finish work (i.e., signage, fencing, seating, etc.)	07/29/2021	08/04/2021	1 week
<i>East Trail</i>			
Site preparation (clearing and grubbing)	08/05/2021	11/01/2021	3 months
Grading	05/01/2022	09/29/2022	5 months
Installation of wet crossings/foot bridges	10/01/2022	10/21/2022	3 weeks
Building construction (kayak/boat launch area)	05/01/2023	05/19/2023	3 weeks
Paving (application of gravel base parking lot)	05/21/2023	05/26/2023	1 week
Finish work (i.e., signage, fencing, seating, etc.)	05/28/2023	06/02/2023	1 week
<i>Other Improvements (access road and bridge)</i>			
Grading	06/04/2023	06/09/2023	5 days
Access road/bridge construction	06/11/2023	06/30/2023	3 weeks
Paving	07/02/2023	07/05/2023	3 days
Finish Work (i.e., signage, fencing, etc.)	07/07/2023	07/10/2023	2 days

Source: See Appendix B for details.

The construction equipment mix used for estimating the construction emissions of the proposed project is based on information provided by the County and is shown in Table 3.3-4.

**Table 3.3-4
Construction Scenario Assumptions**

Construction Phase	One-way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
<i>West Trail</i>						
Site Preparation (clearing and grubbing)	4	0	0	Backhoe	1	8
				Small bulldozer (crawler tractor)	1	8
Grading	4	0	0	Backhoe	1	8
				Small bulldozer (crawler tractor)	1	8
Installation of wet crossings/foot bridges	6	2	0	N/A	N/A	N/A
Paving (gravel/concrete parking lots)	4	0	0	Roller	1	8
				Small bulldozer (crawler tractor)	1	8

**Table 3.3-4
Construction Scenario Assumptions**

Construction Phase	One-way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Finish Work (i.e., signage, fencing, seating, etc)	2	2	0	N/A	N/A	N/A
<i>East Trail</i>						
Site Preparation (clearing and grubbing)	4	0	0	Backhoe	1	8
				Small bulldozer (crawler tractor)	1	8
Grading	4	0	0	Backhoe	1	8
				Small bulldozer (crawler tractor)	1	8
Installation of wet crossings/foot bridges	6	2	0	N/A	N/A	N/A
Building Construction (kayak/boat launch area)	8	4	0	N/A	N/A	N/A
Paving (gravel/concrete parking lots)	4	0	0	Roller	1	8
				Small bulldozer (crawler tractor)	1	8
Finish Work (i.e., signage, fencing, seating, etc)	2	2	0	N/A	N/A	N/A
<i>Other Improvements</i>						
Grading	4	0	0	Backhoe	1	8
				Small bulldozer (crawler tractor)	1	8
Building Construction (access road bridge)	8	4	0	Boom truck	1	8
				Pumping equipment	1	8
				Crane	1	8
Paving (gravel road/asphalt bridge)	4	0	0	Roller	1	8
				Small bulldozer (crawler tractor)	1	8
Finish Work (i.e., signage, fencing, seating, etc.)	2	2	0	N/A	N/A	N/A

Notes: See Appendix B for details.

N/A = not applicable (no off-road construction equipment is associated with the proposed activity phase; however, hand tools, haul trips, vendor trips, or worker trips may be required).

Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod.

The construction equipment mix presented in Table 3.3-4 was based on information provided by the County. This equipment mix accounts for both on-site construction equipment, as well as construction equipment required for off-site improvements. For the analysis, it was generally

assumed that heavy construction equipment would be operating on the project site for approximately 8 hours per day, 5 days per week (22 days per month) during project construction, which would primarily be used for constructing the access road and staging/parking areas. All other activities would likely use smaller pieces of construction equipment and hand tools. CalEEMod defaults were applied for the worker, haul, and vendor trips (CAPCOA 2017).

Operation

Emissions from long-term operation of the proposed project were not estimated because the project does not include any uses (i.e., new residential or commercial) that would generate emissions due to operation with the exception of vehicle trips accessing the site. The main source of emissions from operation of the proposed project would include motor vehicle emissions generated by visitors and maintenance of the trail facilities. As presented in Section 3.13, Transportation and Circulation, trip generation for the proposed project was estimated from surveys conducted in the summer of 2017 at three trailhead parking lots (Taylor Mountain Regional Park, Laguna Wetlands Preserve, and Shell Beach) within the County (W-Trans 2018). Using an average of the trip generation rates observed at the three trailhead parking lots and the average acreage based on the area of trails served, the proposed project was projected to result in approximately 26 p.m. weekday trips and 43 weekend midday trips (W-Trans 2018).

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, the BAAQMD thresholds, and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan.
- 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.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors affecting a substantial number of people).

Notably, in the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015, the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's occupants, except where the project would significantly exacerbate an existing environmental condition. Accordingly, the significance criteria above related to exposure of

sensitive receptors to substantial pollutant concentrations is relevant only to the extent that the project exacerbates air quality conditions. The impact is considered significant if the project would exacerbate existing or future air quality conditions.

The BAAQMD adopted updated CEQA Air Quality Guidelines, including new thresholds of significance, in June 2010 (BAAQMD 2010), and revised guidelines were finalized in May 2017.³ These thresholds are based on substantial evidence identified in BAAQMD’s 2009 Justification Report (BAAQMD 2009) and are used herein.

Current BAAQMD significance thresholds are summarized in Table 3.3-5. In general, the BAAQMD significance criteria pollutant (ROG, NO_x, PM₁₀, PM_{2.5}, and CO) thresholds address the first two air quality Appendix G CEQA checklist questions (also listed above). The BAAQMD maintains that these criteria pollutant thresholds are intended to maintain ambient air quality concentrations below state and federal standards and to prevent a cumulatively considerable contribution to regional nonattainment with ambient air quality standards. The TAC thresholds (cancer and noncancer risks) and local CO thresholds address the third Appendix G checklist question, and the BAAQMD odors threshold addresses the fourth Appendix G checklist question.

**Table 3.3-5
Thresholds of Significance**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
PM ₁₀ /PM _{2.5} (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average, 20.0 ppm (1-hour average)	
Risks and Hazards (Individual Project)	Compliance with Qualified Community Risk Reduction Plan or Increased cancer risk of >10.0 in a million		

³ The CEQA Air Quality Guidelines advise lead agencies on how to evaluate potential air quality impacts, including establishing quantitative and qualitative thresholds of significance. The BAAQMD resolutions adopting and revising the significance thresholds in 2011 were set aside by a judicial writ of mandate on March 5, 2012. In May 2012, the BAAQMD updated its CEQA Air Quality Guidelines to continue to provide direction on recommended analysis methodologies, but without recommended quantitative significance thresholds (BAAQMD 2012). On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD’s CEQA thresholds. The BAAQMD CEQA Air Quality Guidelines were finalized in May 2017 (BAAQMD 2017a) and include the same thresholds as in the 2010 and 2011 Guidelines for criteria air pollutants, TACs, and greenhouse gases. The Guidelines also address the December 2015 Supreme Court’s opinion (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369).

**Table 3.3-5
Thresholds of Significance**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
	Increased noncancer risk of >1.0 Hazard Index (Chronic or Acute) Ambient PM _{2.5} increase >0.3 µg/m ³ annual average Zone of Influence: 1,000-foot radius from property line of source or receptor		
Risks and Hazards (Cumulative)	Compliance with Qualified Community Risk Reduction Plan or Cancer risk of >100 in a million (from all local sources) Noncancer risk of >10.0 Hazard Index (chronic, from all local sources) Ambient PM _{2.5} >0.8 µg/m ³ annual average (from all local sources) Zone of Influence: 1,000-foot radius from property line of source or receptor		
Accidental Release of Acutely Hazardous Air Pollutants	None	Storage or use of acutely hazardous material located near receptors or new receptors located near stored or used acutely hazardous materials considered significant	
Odors	None	Five confirmed complaints to BAAQMD per year averaged over 3 years	

Source: BAAQMD 2017a.

Notes: lbs/day = pounds per day; tons/year = tons per year; ppm = parts per million; µg/m³ = micrograms per cubic meter; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; CO = carbon monoxide

Significance Criteria Not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable to the proposed project and therefore, are not considered potential impacts. These thresholds are addressed briefly below, but are not discussed further in this document.

The BAAQMD has identified typical sources of odor in the CEQA Air Quality Guidelines, a few examples of which include manufacturing plants, rendering plants, coffee roasters, wastewater treatment plants, sanitary landfills, and solid waste transfer stations. While sources that generate objectionable odors must comply with air quality regulations, the public's sensitivity to locally produced odors often exceeds regulatory thresholds. An active cattle ranch occupies land that surrounds the proposed trail alignments and odors and dust associated with this existing use would be present. However, the dust and odors associated with this existing use are commonplace and expected in rural areas of the County and hikers using the trails would only be exposed for a short time. Because the proposed project includes development of a hiker-use only trail, the proposed project is not a typical land use associated with the generation of a source of odor and would not generate odor impacts. Thus, project-related odor issues are not further evaluated.

Project Impacts and Mitigation Measures

3.3-1: Implementation of the proposed project may conflict with or obstruct implementation of the applicable air quality plan. This would be a less-than-significant impact.

An area is designated as “in attainment” when it is in compliance with the federal and/or state standards. These standards are set by the EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or public welfare with a margin of safety. The project site is located within the SFBAAB, which is designated non-attainment for the federal 8-hour O₃ and 24-hour PM_{2.5} standards. The area is in attainment or unclassified for all other federal standards. The area is designated non-attainment for state standards for 1-hour and 8-hour O₃, 24-hour PM₁₀, annual PM₁₀, and annual PM_{2.5}.

On April 19, 2017, the BAAQMD adopted the *Spare the Air: Cool The Climate - Final 2017 Clean Air Plan* (BAAQMD 2017c). The BAAQMD Guidelines identify a three-step methodology for determining a project’s consistency with the current Clean Air Plan. If the responses to these three questions can be concluded in the affirmative and those conclusions are supported by substantial evidence, then the BAAQMD considers the project to be consistent with air quality plans prepared for the Bay Area.

The first question to be assessed in this methodology is “does the project support the goals of the Air Quality Plan”? The BAAQMD-recommended measure for determining project support for these goals is consistency with BAAQMD thresholds of significance. If a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2017 Clean Air Plan. As indicated in the following discussion with regard to Impacts 3.3-2 and 3.3-3 below, the proposed project would result in less than significant construction and operational emissions and would not result in long-term adverse air quality impacts. Therefore, the proposed project would be considered to support the primary goals and be consistent with the BAAQMD current Clean Air Plan.

The second question to be assessed is “does the project include applicable control measures from the Clean Air Plan”? The 2017 Clean Air Plan contains 85 control measures aimed at reducing air pollution in the Bay Area. Projects that incorporate all feasible air quality plan control measures are considered consistent with the Clean Air Plan. The control strategies of the 2017 Clean Air Plan include measures in the categories of stationary sources, the transportation sector, the buildings sector, the energy sector, the agriculture sector, natural and working lands, the waste sector, the water sector, and super-GHG pollutant measures. Because the proposed project involves the construction of a pedestrian use only trail and does not include constructing any permanent buildings, many of the control measures would not be directly applicable to the proposed project. Notably, the 85 control measures presented in the

2017 Clean Air Plan are categorized into 9 economic sectors including: agriculture, buildings, energy, natural and working lands, super-GHGs, stationary sources, transportation, waste, and water. Applicable measures from the 2017 Clean Air Plan would include transportation measures TR14 and TR22. TR14 would apply to vehicles traveling to the proposed project site which requires the promotion of hybrid electric vehicles and other fuel efficient vehicles. Measure TR22 incentivizes early adoption of Tier 3 and 4 off-road engines used for construction. In addition, the proposed project would comply with all applicable BAAQMD rules including reducing fugitive dust exposure generated by construction activities. Therefore, the proposed project would not conflict with any of the control measures from the Clean Air Plan.

The third question is “does the project disrupt or hinder implementation of any control measures from the Clean Air Plan”? Examples of how a project may cause the disruption or delay of control measures include a project that precludes an extension of a transit line or bike path, or proposes excessive parking beyond parking requirements. The proposed project would not create any barriers or impediments to planned or future improvements to transit or bicycle facilities in the area, nor would it include excessive parking. Therefore, the proposed project would not hinder implementation of the Clean Air Plan control measures.

In summary, the responses to all three of the questions with regard to Clean Air Plan consistency are affirmative and the proposed project would not conflict with or obstruct implementation of the Clean Air Plan. This is a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

3.3-2: Implementation of the proposed project may result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable federal or state ambient air quality standard. This would be a less-than-significant impact.

Past, present, and future development projects may contribute to the SFBAAB adverse air quality impacts on a cumulative basis. Per BAAQMD’s CEQA Guidelines, by its nature air pollution is largely a cumulative impact; no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be considered cumulatively considerable, resulting in a significant adverse air quality impact to the region’s existing air quality conditions. Therefore, if the proposed project’s emissions are below the BAAQMD thresholds or screening criteria, then the proposed project’s cumulative impact would be considered less than significant.

The CalEEMod Version 2016.3.2 model was used to estimate emissions related to construction activities. CalEEMod input parameters, including the proposed project land use type and size, construction schedule, and anticipated construction equipment, were based on information provided by the project applicant, or default model assumptions if project specifics were unavailable.

Construction

The proposed project would involve construction of a pedestrian use only trail. Construction activities are anticipated to occur within a 6-month period each year and are estimated to be completed within approximately 4 years. Sources of emissions would include: off-road construction equipment exhaust, on-road vehicle exhaust and entrained road dust (i.e., material delivery trucks and worker vehicles), fugitive dust associated with site preparation and grading activities, and development of the gravel-base parking areas and access road. The majority of assumptions for the proposed project were based on CalEEMod defaults and are included in Appendix B.

Average daily emissions were computed by dividing the total construction emissions by the number of active construction days, which were then compared to the BAAQMD construction thresholds of significance. Table 3.3-6 shows average daily construction emissions of O₃ precursors (ROG and NO_x), PM₁₀ exhaust, and PM_{2.5} exhaust during project construction compared to the BAAQMD thresholds.

**Table 3.3-6
Average Daily Unmitigated Construction Emissions**

Year	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
	<i>pounds per day</i>			
2020-2023 Construction	0.6	6.0	0.3	0.3
<i>BAAQMD Construction Thresholds</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Threshold?	No	No	No	No

Notes: The values shown are average daily emissions based on total overall tons of construction emissions, converted to pounds, and divided by 437 active work days.

ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter

Source: See Appendix B for detailed results.

As shown in Table 3.3-6, construction of the proposed project would not exceed BAAQMD significance thresholds. Criteria air pollutant emissions during construction would be less than significant. Although the BAAQMD does not have a quantitative significance threshold for fugitive dust, the BAAQMD's CEQA Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). The project contractor would be required as conditions of approval to implement the following BMPs that are required of all projects in the County:

1. All exposed surfaces (e.g., parking/staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off site shall be covered.
3. All visible mud or dirt track-out onto SR 1 shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation of the required fugitive dust control measures would ensure air quality and fugitive dust-related impacts associated with construction would remain **less than significant**.

Operation

Once operational, the proposed project would consist of a pedestrian-use only trail. Long-term operation of the proposed project would require minimal upkeep and maintenance. The main source of emissions from operation of the proposed project would include motor vehicle emissions generated by visitors to the site and County maintenance vehicles. As presented in Section 3.13, Transportation and Circulation, because the standard trip generation rates published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 10th Edition, 2017 for a public park would overestimate vehicle trips for the proposed project, surveys were conducted to establish vehicle trip rates for trailhead parking lots in Sonoma County (W-Trans 2018). The surveys were conducted at three separate County Parks and based on the data collected, the average of these three surveyed parks were used to estimate the trips for the project. The proposed project was estimated to generate approximately 26 weekday p.m. peak hour trips and 43 weekend midday peak hour trips (W-Trans 2018). Because the proposed project would generate a minimal amount of vehicle trips, operational emissions would be **less than significant**.

Criteria pollutant emissions generated by short-term construction and long-term operations of the proposed project would not exceed the BAAQMD significance thresholds. Thus, the proposed project would have a less than significant cumulative impact in relation to regional emissions. In addition, the project would result in minimal new traffic trips that would not exceed the BAAQMD CO screening criteria resulting in a **less-than-significant cumulative impact** in relation to localized CO.

Mitigation Measures

No mitigation measures are required.

3.3-3: Implementation of the proposed project could expose sensitive receptors to substantial pollutant concentrations. This would be a less-than-significant impact.

Toxic Air Contaminants

The BAAQMD has adopted project and cumulative thresholds for three risk-related air quality indicators to sensitive receptors: cancer risks, noncancer health effects, and increases in ambient air concentrations of PM_{2.5}. These impacts are addressed on a localized, rather than regional, basis in relation to sensitive receptors identified for the project. Sensitive receptors are groups of individuals, including children, older adults, the acutely ill, and the chronically ill, that may be more susceptible to health risks due to chemical exposure. Sensitive-receptor population groups are likely to be located at hospitals, medical clinics, schools, playgrounds, childcare centers, residences, and retirement homes. As previously discussed, the closest sensitive receptors are residences located approximately 1,000 feet east of the proposed East Trail.

The greatest potential for toxic air contaminants (TAC) emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and heavy-duty trucks during construction of the proposed project, and the associated health impacts to sensitive receptors. As shown in Table 3.3-6, average daily particulate matter (PM₁₀ or PM_{2.5}) exhaust emissions generated by construction equipment operation would be well below the BAAQMD significance thresholds. Moreover, total construction of the proposed project would occur within a 6-month period each year (May through October) and would last 3 to 4 years (which equates to approximately 7% of the total 30-year analysis exposure period), after which project-related TAC emissions would cease. The proposed project would not require the extensive use of heavy-duty construction equipment, which is subject to CARB's Airborne Toxic Control Measures for in-use diesel construction equipment to reduce DPM emissions, and it would not involve extensive use of diesel trucks.

Operation of the proposed project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators) or result in substantial diesel vehicle trips (i.e., delivery trucks). Therefore, the proposed project would not result in exposure of sensitive

receptors in the vicinity of the project site to substantial TAC concentrations due to either construction or operation and impacts would be **less than significant**.

Local Carbon Monoxide Concentrations

The BAAQMD thresholds of significance for local CO emissions is the 1-hour and 8-hour CAAQS of 20 parts per million and 9 parts per million, respectively. By definition, these represent levels that are protective of public health. According to the BAAQMD, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met (BAAQMD 2017a):

1. Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

As previously discussed, the proposed project would generate minimal new vehicle traffic trips. The proposed project would be expected to generate 26 weekday p.m. peak hour trips and 43 weekend midday peak hour trips (W-Trans 2018) and would comply with the BAAQMD screening criteria. Based on the BAAQMD's criteria, project-related traffic would not exceed CO standards and, therefore, no further analysis was conducted for CO impacts. The CO emissions impact would be **less than significant** on both a project level and cumulative basis.

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the BAAQMD emission thresholds for any criteria air pollutants.

In addition, ROG and NO_x are precursors to O₃, for which the SFBAAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O₃ are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SFBAAB due to O₃ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year

that the ROG emissions would occur because exceedances of the O₃ AAQS tend to occur between April and October when solar radiation is highest.

The holistic effect of a single project's emissions of O₃ precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the ROG and NO_x emissions associated with project construction could minimally contribute to regional O₃ concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, as well as the existing good air quality in project area, health impacts would be considered less than significant.

Similar to O₃, construction of the proposed project would not exceed thresholds for PM₁₀ or PM_{2.5} and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter. The proposed project would also not result in substantial DPM emissions during construction and operation and therefore, would not result in significant health effects related to DPM exposure. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be considered less than significant.

Regarding NO₂, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO₂. NO₂ and NO_x health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Off-road construction equipment would primarily be used for development of the staging/parking area, replacement of the bridge and widening and re-graveling of the access road. It should be noted that construction of the trails would require the use of smaller equipment and hand tools. Construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO_x impacts. Therefore, health impacts would be considered less than significant.

The ROG and NO_x emissions, as described previously, would minimally contribute to regional O₃ concentrations and the associated health effects. In addition to O₃, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO₂. As shown in Table 3.3-2, the existing NO₂ concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected the proposed project's operational NO_x emissions would result in an exceedance of the NO₂ standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The potential CO "hotspots" were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. In addition, PM₁₀ and PM_{2.5} would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter and would not obstruct the SFBAAB from coming into attainment for these pollutants and would not contribute to significant health effects associated with particulates. Therefore, health impacts associated with criteria air pollutants would be considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context of an air pollutant is dependent on the specific pollutant being considered. O₃ precursors are a regional pollutant; therefore, the cumulative context would be existing and future development within the entire SFBAAB. This means that O₃ precursors generated in one location do not necessarily have O₃ impacts in that area. Instead, precursors from across the region can combine in the upper atmosphere and be transported by winds to various portions of the air basin. Consequently, all O₃ precursors generated throughout the air basin are part of the cumulative context.

The geographic scope for the cumulative analysis is the County and surrounding areas, which is located within the SFBAAB for O₃. The SFBAAB includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties as well as the southern half of Sonoma County and the southwestern portion of Solano County. The BAAQMD establishes emissions thresholds for regional emissions.

Particulates (fugitive dust and DPM) and TACs would result in localized impacts in close proximity to pollutant sources. There are no other active cumulative projects in the immediate vicinity of the proposed project site that are anticipated to contribute to localized TAC exposure; therefore, an analysis of the cumulative effects is not addressed below.

3.3-4: The proposed project could contribute to cumulative air quality emissions within the existing area. The project's contribution would not be considerable.

As previously discussed under Impact 3.3-3, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Therefore, the project's cumulative contribution would be negligible and not considerable and cumulative impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

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3.4 Biological Resources

Introduction

This section of the Draft Environmental Impact Report (EIR) presents a description of biological resources that occur within the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) site, as well as the entire Bordessa Ranch property (project site). Biological resources include special-status plant and wildlife species, vegetation communities, and sensitive natural habitats/communities. This section also includes a discussion of local, state, and federal laws, regulations, and policies that are applicable to these biological resources; an analysis of potential impacts to these resources due to implementation of the proposed project; and measures to minimize and mitigate for potentially significant impacts to these resources.

Comments received in response to the Notice of Preparation (NOP) included concerns associated with the proposed locations of the two trails; adequacy of biological surveys; impacts and/or loss of wetlands; and impacts to a wide variety of wildlife species. Comment letters expressed concern over the trail locations with regards to documented avian species of special concern, particularly ground nesting, burrowing, and foraging species. Comments note that trail construction and subsequent human encroachment could interrupt establishing nesting and foraging patterns and result in disturbance and negative impacts. Several commenters, including the California Department of Fish and Wildlife (CDFW), noted that previous botanical surveys for rare plants were not conducted during the appropriate blooming period and recommended that protocol-level surveys be repeated during the blooming season to minimize potential impacts to special-status plant species. CDFW also recommended conducting burrowing owl and American badger surveys as they are both California species of special concern. CDFW also noted several special-status species may be present in the project vicinity, including California clapper rail, California black rail, salt marsh harvest mouse, and western pond turtle, and provided recommendations for avoidance and survey guidelines. A copy of the NOP and comments received is included in Appendix A.

Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included comments from the Audubon Society regarding the extensiveness of the proposed trails and a suggestion to reduce the configuration to only one trail; the close proximity of the trail(s) to avian nest sites and potential impacts to these nest sites; the presence of burrowing owls within the project site; human encroachment and the associated disturbance to wildlife species; and the lack of American badger surveys performed to determine baseline use of the site (three years of seasonally timed badger surveys was suggested). Other concerns raised included potential impacts to roosting bats that may be present in the adjacent barn on the property and nesting birds along the trail route; wildlife disturbance from construction and operation activities; feasibility of mitigation for California red-legged frog and western pond turtle; lack of Best Management Practices (BMPs) to prevent sedimentation of waters that could

affect fish in the Estero Americano (Estero); lack of surveys for special-status plants; wetland mitigation ratios; and the potential for off-site wetland mitigation to impact hydrology and water quality within the site. CDFW expressed concerns about impacts to wildlife from domestic animals (i.e., dogs); impacts from light pollution, noise and human activity during and after construction; a lack of surveys for special-status plants during the blooming period; recommended protocol level surveys for burrowing owl; recommended American badger surveys; permanent loss of burrowing owl and American badger habitat; avoidance of salt marsh habitat adjacent to the site; and avoidance of wetland and stream habitats within the site; and inclusion of a Mitigation Monitoring Program. The lack of western dog violet (*Viola adunca*) and silverspot butterfly surveys along the trail alignment was also a concern raised.

Both CDFW and the Greater Farallones National Marine Sanctuary (GFNMS) reiterated the importance of avoiding potential impacts to wetlands, streams, and riparian habitat. GFNMS also noted that trail routing and signage should not be placed within riparian or wetland habitat or within the Estero. The California Coastal Commission (CCC) recommended expanding buffer distances from wetlands and sensitive habitat areas. The CCC letter also recommended a Grazing Plan be developed to describe how recreational uses and surrounding active agricultural resources could coexist and continue to protect sensitive habitats. As explained in Chapter 2, Project Description, the entire site is under a Conservation Easement and is private land that will continue to be operated as a cattle ranch and used for cattle breeding and grazing. Per the terms of the Conservation Easement, the landowners are required to prepare a rangeland management plan (RMP) that integrates natural resources protection goals with cattle grazing for the entire project site. The RMP would be prepared in consultation with a certified rangeland manager, the Sonoma County Agricultural and Preservation Open Space District (District), and State Coastal Conservancy staff and would govern the landowners' management of the property.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

Methods

The description of biological resources described in the Environmental Setting section below is largely based on a review of previously conducted studies on the property, a review of available agency databases on documented occurrences of special-status species in the project region, as well as on technical surveys and assessments conducted by Dudek in 2018 in preparation for this EIR and associated impact analysis. Previous studies reviewed and the 2018 technical studies that were conducted are briefly described below. An overview of the databases queried is included in the Methods of Analysis provided in the Impacts section.

Summary of Previous Studies

Summary of Findings from Bird Surveys on the Bordessa Ranch Final Report: 2011 and 2012 Surveys (Heaton 2012): The report summarizes the results of general avian surveys conducted on the Bordessa Ranch in 2011 and early 2012. A total of seven surveys were conducted with the stated objective to focus on use of the site by burrowing owl and short-eared owl, but to also document use of other avian species. Special-status bird species observed or otherwise detected from calls or sign (such as feathers and pellets) during the survey included northern harrier, burrowing owl, short-eared owl, Bryant's savannah sparrow, grasshopper sparrow, and white-tailed kite (these species are discussed in more detail below). No state- or federally-listed threatened or endangered species were detected. The author included a number of recommendations for conservation easement terms associated with the Forever Wild Area.

The Estero Trail Wildlife Resources Evaluation (Sonoma County Agricultural Preservation and Open Space District 2014): County biologists conducted two reconnaissance-level assessments of the project site in April and June 2014, to characterize and document biological resources within and in the vicinity of proposed trail corridors and staging areas. No focused or protocol-level surveys were conducted for special-status species. The focus of the assessments was on the potential for special-status species to occur on the site and to recommend measures to minimize potential impacts associated with trail development, maintenance, and operation on those special-status species. Special-status species observed during the 2014 site visits included Bryant's savannah sparrow, American white pelican (Estero), California red-legged frog, and western pond turtle. Several other special-status species were determined to have potential to occur based on the presence of suitable habitat and known occurrences in the region.

Rare Plant and Wetland Habitat Assessment (Sonoma County Agricultural Preservation and Open Space District 2014): County biologists conducted a site assessment in 2014 focused on rare plants and any wetland areas. The assessment describes several intermittent drainages, seeps, swales, wetlands, wet meadows, and creek corridors (the central channel that runs north to south through the site) within the site that have potential to be under jurisdiction of the U.S. Army Corps of Engineers or the CDFW. A formal wetland delineation was not performed as part of this habitat assessment. Two special-status plant species, congested-headed hayfield tarplant and western dog violet were observed during the field survey.

Literature/Database Review

Dudek biologists conducted a literature/database review to determine if special-status biological resources are present or potentially present on the project site. The desktop literature search reviewed the following sources: U.S. Fish and Wildlife Service (USFWS) Information, Planning and

Conservation (IPaC) Trust Resource Report; CDFW California Natural Diversity Database (CNDDDB); and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants. The database searches for the CNDDDB and CNPS reports included the 7.5' USGS Valley Ford quadrangle and surrounding eight quadrangles. The IPaC search included the project site and a five-mile buffer surrounding the site. California Rare Plant Rank (CRPR) 1 and 2 plant species were included in the CNPS search (CNPS 2018). Following a review of these resources, Dudek determined the potential for each species to occur within the site based on a review of vegetation communities and available land cover types, habitat types, soils, and elevation preferences, as well as the known geographic range of each species (see Appendix C). Species were not expected to occur when the site was clearly outside the known geographic range of the species, or if there was no suitable habitat for the species on or adjacent to the site. Additionally, the Natural Resources Conservation Service (USDA 2017), Web Soil Survey (WSS) was queried to determine soil types that exist within the boundary of the project site.

Technical Studies Conducted as part of this Project

The following technical studies and habitat assessments were conducted in 2017 and/or 2018 by Dudek and are included in Appendix C:

- A biological reconnaissance survey to generally assess on-site habitats and their potential to support various special-status plant and wildlife species and to characterize and map on-site vegetation communities was conducted in 2017. The assessment consisted of pedestrian transects throughout the project site and along the proposed trail alignments to collect data related to biological resources present or potentially present within the site. An aerial photograph (Google Earth 2017) and digital georeferenced map with an overlay of the property boundary was used to map the vegetation communities and record any anecdotally observed special-status or sensitive biological resources while in the field. Incidental observations of wildlife (common and/or special-status) or wildlife sign (e.g., tracks, scat) were also recorded. The field assessment included the project site only; however, general characteristics of adjacent properties were also noted during the survey by scanning with and without binoculars
- A habitat assessment and focused surveys to determine suitability and presence/absence for California red-legged frog and western pond turtle were conducted in September 2017 at all aquatic sites that contained water on the project site. Aquatic habitat areas evaluated as part of the assessment and surveys included four man-made ponds, two intermittent drainages, and several springs/seeps. The assessment and daytime surveys for the red-legged frog were based on habitat requirements and survey protocols as described in the *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005). Western pond turtle surveys were conducted according to protocols developed by Holland (1991).

- A jurisdictional delineation to characterize and map wetland/aquatic areas potentially under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act and under California Department of Fish and Wildlife jurisdiction pursuant to Section 1600 of the California Fish and Game Code was conducted in May and September, 2017. Potentially jurisdictional features were identified based on aerial signatures and field observations according to the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands, Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*, and the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook*. The delineation was also intended to address concerns raised in comments on the NOP about potential impacts on wetlands.
- Focused protocol-level surveys for special-status plant species known to occur in the region and potentially occurring on the project site were conducted in April, May, and August, 2017, to coincide with the blooming periods of those species previously identified, based on the availability of suitable habitat and soil types within the project site, as potentially occurring on the project site. During the surveys, a comprehensive list of plant species observed on the site was compiled. These surveys also address concerns stated in the NOP comments that previous botanical surveys for rare plants were not conducted during the appropriate blooming period and that additional surveys be conducted.
- A habitat assessment for Ridgway's rail (*Rallus obsoletus*), an avian marsh species that is a federal- and state-listed endangered species, and the salt marsh harvest mouse (*Reithrodontomys raviventris*), also a federal- and state-listed endangered species, was conducted by California Environmental Scientists, Inc., in June 2018.

The results of these surveys and assessments are incorporated into the appropriate topic areas within the Environmental Setting section below. The potential for other special-status wildlife species to occur on the site, based on the various surveys and habitat assessments discussed above, are addressed in Table 3.4-3 (see p. 3.4-22), and within each separate species description provided further below. Reports documenting the methods and results of these surveys and assessments can be found in Appendix C.

Environmental Setting

This section describes the existing biological setting within the entire Bordessa Ranch property, with particular focus on the 50-foot-wide trail corridors (approximately 30.3 acres) designated within the Trail Easement and two staging areas, not to exceed 1.5 acres for a total combined area of approximately 31.8 acres, with approximately 4.8 acres of actual potential disturbance for construction of the two trails. As indicated in Chapter 2, Project Description, future uses may also include seasonal access to the Estero, via the East Trail for pedestrians and hand-carried, non-motorized boats such as kayaks and canoes if and to the extent the District determines that

such access is compatible with sensitive resources associated with the Estero and the property. Future uses may also include development, as provided by the Conservation Easement, within the two-acre Agricultural Building Envelope (ABE) and one-acre Residential Building Envelope (RBE). Future development within either the ABE or RBE would be a separate project initiated by the landowners and is not a part of this project evaluated in the EIR.

Regional Description

The project site is located within the North Coast Ranges sub region of the California Floristic Province (Baldwin ed. 2012). This region is characterized by sloping hills near the central California coast from which cold air drains within the fog belt (Baldwin ed. 2012). Average annual temperatures in the Valley Ford area range from approximately 47 degrees to 66.7 degrees, and the average precipitation is 54.29 inches (WRCC 2017). On average, the months with the highest rainfall are December and January, and July has the least precipitation.

The project site is part of the Estero Americano subwatershed (Hydrologic Unit Code 180500050302), within the Bodega Bay hydrologic unit (Hydrologic Unit Code 18010111). An unnamed intermittent drainage in the central portion of the project site (referred to as the central creek drainage) drains rainwater runoff south into the Estero, an estuary of Bodega Bay and the Pacific Ocean west of the project site. The Estero is an important, biologically rich coastal estuary along the boundary of Sonoma and Marin counties that provides foraging, breeding and cover resources for a variety of wildlife species, namely avian and marine species. It is designated as Critical Habitat for steelhead (*Oncorhynchus mykiss irideus*) by the National Oceanic and Atmospheric Administration (NOAA), and contains several sensitive natural communities as designated by CDFW. The Estero drains into Bodega Bay at the Sonoma-Marin County line. Many different habitat types are found in the Estero including mudflats, marshes, rocky shore, coastal scrub, and grasslands. Within these habitats, the Estero supports many species of plants, invertebrates, fish, birds, and mammals. They also provide essential feeding and resting areas for migrating shorebirds and seabirds. The Estero is typically isolated from the Pacific Ocean during summer and fall by seasonally formed sand bars.

Project Site

The Bordessa Ranch¹, which includes the approximately 31.8 acres designated for the Trail Easement, is mostly undeveloped and is dominated by non-native annual grassland habitat within approximately 500 acres of rolling hills and open pastureland that is currently and has historically been used for cattle grazing. Coyote brush scrub occurs intermittently in the western portion of the site, primarily on north- and east-facing hill slopes, and two mature eucalyptus (*Eucalyptus globulus*) groves occur adjacent to the larger drainages on the site. Riparian and

¹ For the purposes of this analysis, resources within the entire Bordessa Ranch property have been described.

marsh vegetation dominate these larger drainages, and several smaller drainages, seasonal wetlands, wet meadows and small ponds are present within the property. A gravel/dirt access road runs north to south through the center of the property approximately 2,300 feet to a workshop, and to an existing barn and associated paddocks (these buildings are located outside of the proposed trail corridors and staging areas). Several ephemeral drainages channel water from the hills in the western portion of the project site into a central intermittent drainage.

Elevation within the project site varies from approximately 10 feet above mean sea level (AMSL) along the center of the site up to approximately 400 feet AMSL in the northwestern hills. The site is situated in Sections 27, 28, 33 and 34 of Township 6 North, and Range 10 West on the Valley Ford 7.5 minute quadrangle. The approximate center of the site corresponds to 38°19'24" north latitude and 122°57'42" west longitude.

Adjacent land uses to the west, north, and east of the project site include cattle grazing and dairy farms that operate on large expanses of land composed of similar vegetative structure to the project site. The Sonoma Coast Villa Resort & Spa is located across SR 1 generally north of the project site.

In 2012, a Conservation Easement was placed over the entire property as agreed to between the landowners and the District to preserve and protect in perpetuity identified conservation values of the property. A 138-acre area portion of the property is designated under the easement as a "Forever Wild Area" because it includes habitat for several special-status species including American badger, short-eared owl, and burrowing owl (as shown on Figure 2-2, in Chapter 2, Project Description). The Conservation Easement also establishes "Natural Areas" along all streams on the property in which it is intended that native riparian vegetation be restored to stabilize stream banks and to prevent soil erosion and sedimentation. The Forever Wild Area and Natural Areas will be protected in perpetuity from potential disturbances caused by grazing, recreation, or allowable building on the property, except for limited areas specifically identified in the Conservation Easement for potential trail development. The Conservation Easement also requires the landowners to complete a RMP that sets forth rangeland best management practices to ensure that all grazing practices are conducted in a manner that is beneficial to the conservation values of the property and that includes standards for appropriate levels of grazing within the Forever Wild Area and Natural Areas. The RMP is subject to review and approval by the District and the Conservancy, or their designees, and will govern the landowners' management of the property.

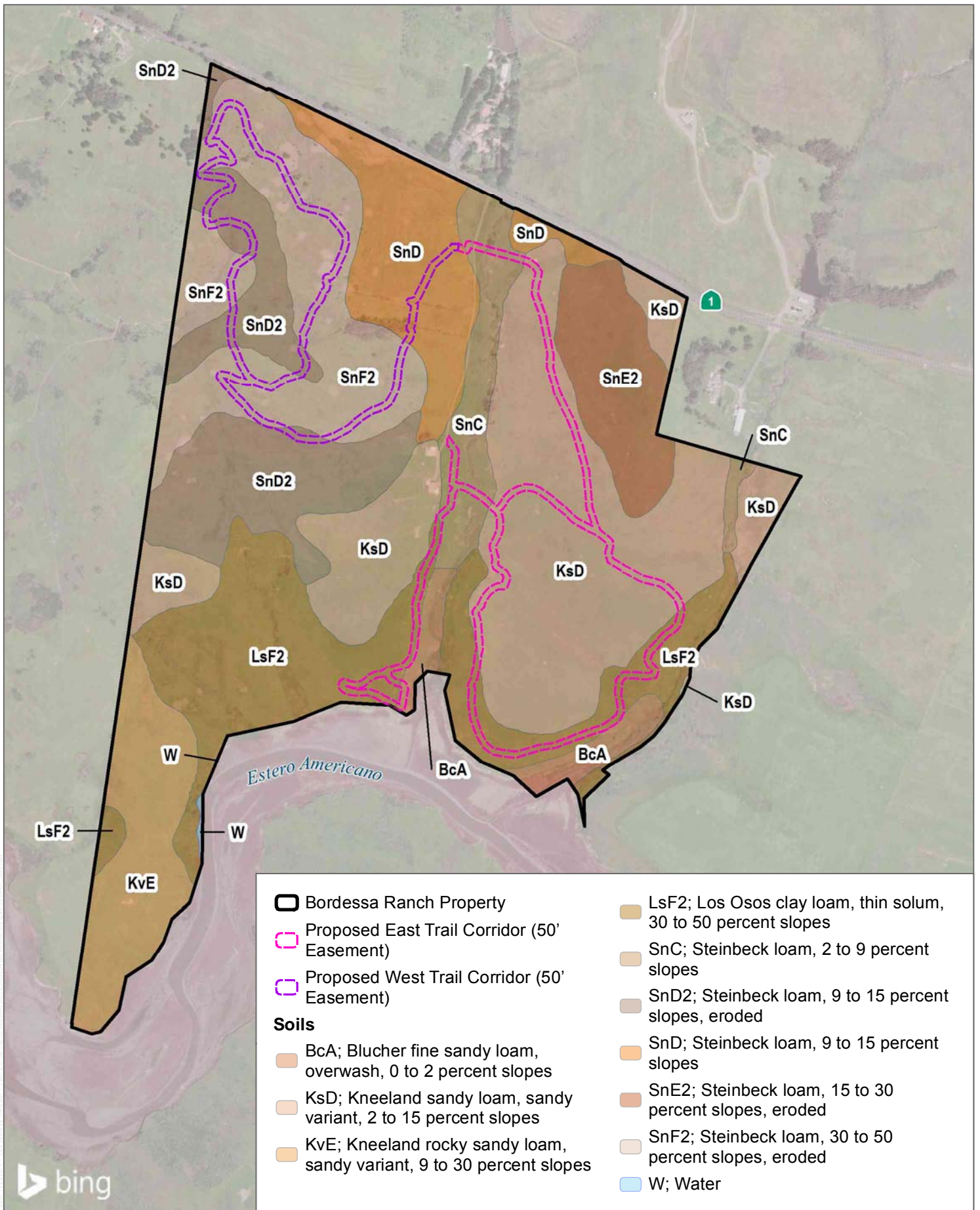
Soils

According to the Natural Resources Conservation Service (USDA 2017), ten soil types are mapped within the project site (Figure 3.4-1). Blucher fine sandy loam (overwash), 0-2% slopes, is a somewhat poorly drained, non-saline to very slightly saline soil derived from sedimentary rock. Kneeland sandy loam (sandy variant), 2-15% and 15-30% slopes, are well-drained

residuum weathered from sedimentary rock. Kneeland rocky sandy loam (sandy variant), 9-30% slopes, is a well-drained residuum weathered from sedimentary rock found on back and side slopes on marine terraces. Los Osos clay loam (thin solum), 30-50% slopes, is a well-drained residuum weathered from sedimentary rock found on hillsides. The remaining soil types are Steinbeck loam occurring on 2-9% slopes, 9-15% slopes, 9-15% slopes (eroded), 15-30% slopes (eroded), and 30-50% slopes (eroded). These are moderately well-drained residuum weathered from sandstone found on back and side slopes of terraces.

Vegetation Communities and Land Cover Types

The land cover within the project site consists of a combination of non-vegetative land cover types as well as terrestrial and aquatic natural vegetation communities. The nomenclature used herein for vegetation communities and non-vegetative land covers have been adapted from *A Manual of California Vegetation*, Second Edition (Sawyer et al. 2009), and the California Wildlife Habitat Relationship System (originally published by Mayer and Laudenslayer in 1988). The following vegetation communities and land cover types have been documented on site and are described in further detail below and depicted on Figure 3.4-2. Those vegetation communities considered to be “sensitive” by CDFW are indicated as such. A total of 157 species of native or naturalized plants, 104 native (66%) and 53 non-native (34%), was recorded on the project site (see Appendix C).

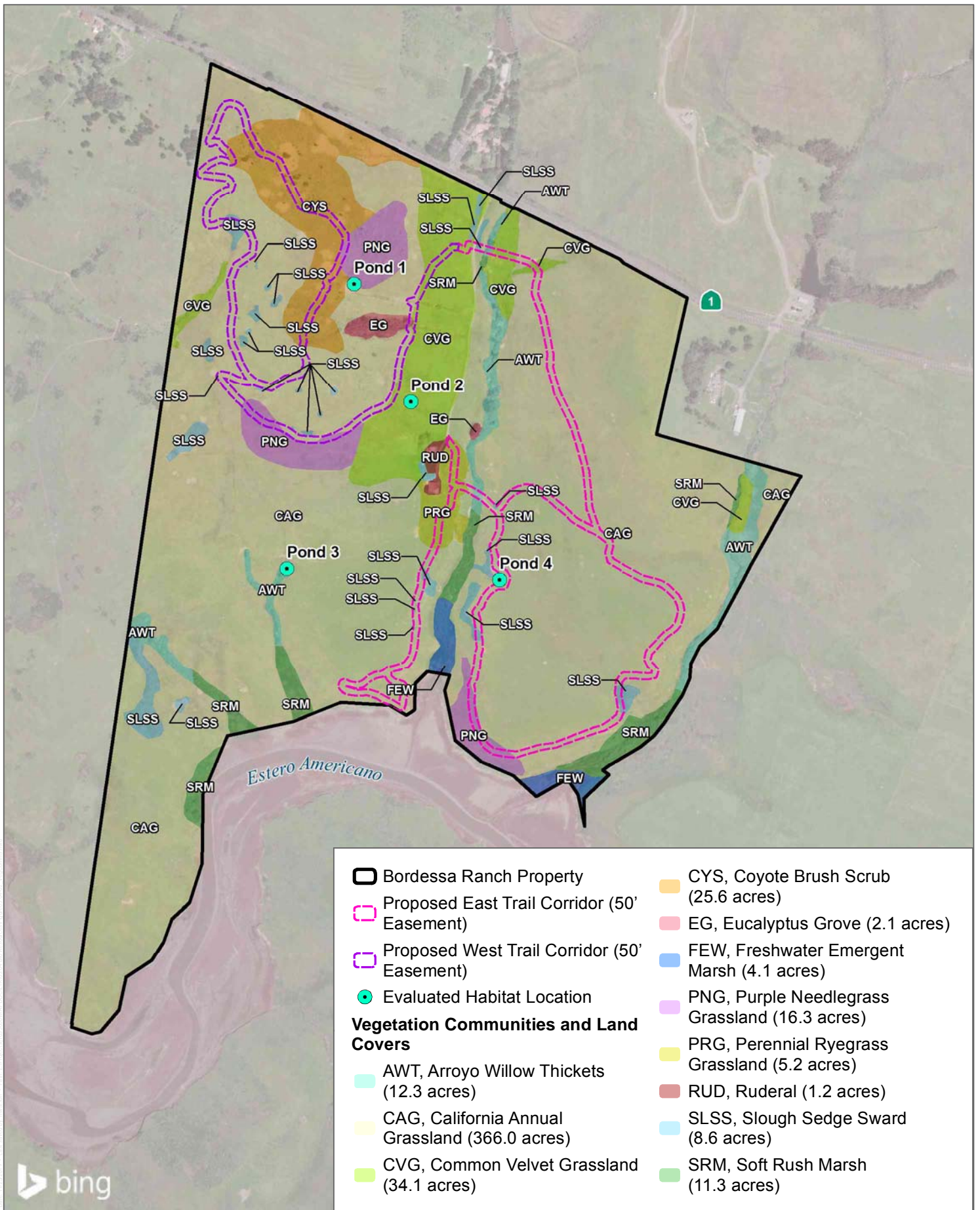


SOURCE: Bing Maps 2018, USDA

FIGURE 3.4-1

Soils Map

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SOURCE: Bing Maps 2018

FIGURE 3.4-2

Vegetation Communities

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California Annual Grassland. The dominant vegetation community within the project site, California annual grassland, encompasses approximately 366 acres and is largely comprised of non-native grasses such as slender wild oats (*Avena barbata*), velvet grass (*Holcus lanatus*), rattlesnake grass (*Briza maxima*), little quaking grass (*Briza minor*), hedgehog dogtail grass (*Cynosurus echinatus*). Also present in this community are non-native forbs such as bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus*), birdsfoot trefoil (*Lotus corniculatus*), cat's ears (*Hypochaeris glabra*; *H. radicata*), pale flax (*Linum bienne*), and sheep sorrel (*Rumex acetosella*). Native grasses and forbs occurred sporadically within the grassland and include purple needlegrass (*Stipa pulchra*), meadow barley (*Hordeum brachyantherum*), yarrow (*Achillea millefolium*), dwarf brodiaea (*Brodiaea terrestris*), California poppy (*Eschscholzia californica*), annual lupine (*Lupinus bicolor*), blue-eyed grass (*Sisyrinchium bellum*), and western bracken fern (*Pteridium aquilinum*). Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), a California Rare Plant Rank (CRPR) 1B.2 species, is present in large numbers within the grassland.

Common Velvet Grass – Sweet Vernal Grass Grassland (*Holcus lanatus* – *Anthoxanthum odoratum* Herbaceous Semi-Natural Alliance). Common velvet grass – sweet vernal grass grasslands on site is co-dominated by these two non-native grass species. This vegetation community comprises approximately 34.1 acres and generally occurs in patches within the more mesic areas of the California annual grassland in the western more hilly terrain of the project site. Non-native sweet briar rose (*Rosa rubiginosa*) also occurs sporadically in this vegetation community.

Perennial Ryegrass (*Lolium perenne* [*Festuca perennis*] Herbaceous Semi-Natural Alliance). One area (approximately 5.2 acres) of perennial ryegrass (*Festuca perennis*) occurs directly adjacent to the barn on site. The field contains nearly 100% cover of perennial ryegrass. This community is typically associated with moist soils.

Slough Sedge Swards (*Carex obnupta* Herbaceous Alliance). Slough sedge swards occur in patches throughout approximately 8.6 acres of the annual grassland on the project site where moisture appears to be maintained in the soil due to the site's microtopography. This vegetation community is dominated by slough sedge (*Carex obnupta*) with some velvet grass, sweet vernal grass, and California blackberry (*Rubus ursinus*) interspersed throughout. This is considered a Sensitive Natural Community by CDFW.

Purple Needlegrass Grasslands (*Nassella* [*Stipa*] *pulchra* Herbaceous Alliance). Purple needlegrass grassland occurs sporadically throughout the grassland in approximately 16.3 acres of the southern and western portions of the project site. This vegetation community is characterized by at least 10% total cover of purple needlegrass. This is considered a Sensitive Natural Community by CDFW.

Coyote Brush Scrub (Baccharis pilularis Shrubland Alliance). Coyote brush scrub occurs intermittently in approximately 25.6 acres of the western portion of the project site, primarily on north- and east-facing hill slopes. Coyote brush (*Baccharis pilularis*) is the dominant shrub in this vegetation community. Other shrub species observed during on-site surveys include sweet briar rose, coffeeberry (*Frangula californica*), hawthorn (*Crataegus* spp.), and gorse (*Ulex europaeus*). Scattered Monterey pine trees (*Pinus radiata*) are also present in low numbers on the northwestern slopes within the project site. The herbaceous understory of this vegetation community contains grass and herb species consistent with those found in the California Annual Grassland described above. This is considered a Sensitive Natural Community by Sonoma County.

Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance). Arroyo willow (*Salix lasiolepis*) is the dominant tree cover along the intermittent drainage (ID-01) on site. Approximately 12.3 acres of this vegetation community is present within the project site. Other tree species observed with the arroyo willow along the central drainage include Lombardy poplar (*Populus nigra*) and blue gum (*Eucalyptus globulus*). The understory of this riparian vegetation community primarily consists of rushes (*Juncus patens* and *J. effusus*), and bracken fern (*Pteridium aquilinum*). This is considered a Sensitive Natural Community (riparian) by CDFW and Sonoma County.

Eucalyptus Groves (Eucalyptus [globulus, camaldulensis] Woodland Semi-Natural Alliance). Two eucalyptus (also known as blue gum; *Eucalyptus globulus*) groves, totaling approximately 2.1 acres, occur on site: one along an ephemeral drainage (ED-02) in the western portion of the project site and the other along the central intermittent drainage (ID-01). This vegetation community is dominated by blue gum in the overstory, with sporadic shrub and small tree species in the understory including arroyo willow, hawthorn (*Crataegus* spp.), poison oak (*Toxicodendron diversilobum*), and California blackberry. Bracken fern and grasses typical of the California annual grassland described above are common in the herbaceous layer.

Baltic and Mexican (soft) rush marshes (Juncus [balticus, mexicanus] Herbaceous Alliance). This vegetation community consists of approximately 11.3 acres of a mix of *Juncus* species including *Juncus balticus*, *J. mexicanus*, *J. patens*, and *J. effusus*. The rush marshes occur along the intermittent drainage (ID-01) and adjacent to the Estero where they mix with pickleweed (*Salicornia* spp.). This is considered Sensitive Natural Community (wetlands) by CDFW and Sonoma County.

Ruderal Roadways and Structures. This land cover type consists approximately 1.2 acres of the developed dirt and gravel access road leading from SR 1 to the barn on site, as well as the barn and associated anthropogenic² influences associated with cattle ranching. Vegetation is generally absent from the access road, and Himalayan blackberry (*Rubus armeniacus*) was common adjacent to the barn.

² Changes in nature made by humans.

Common Wildlife Species

Eighteen common wildlife species (including signs such as feathers, burrows, tracks, scat, etc.) were detected during the September 26, 2017 survey. Of these, 12 were birds and 6 were mammals. An additional 13 bird species were observed during the April 14, 2017 wetland delineation and are included in the list of common wildlife species observed on the site found in Table 3.4-1 below.

**Table 3.4-1
Common Wildlife Species Observed on the Estero Trail Project Site**

Common Name	Scientific Name
<i>Mammals</i>	
coyote (scat)	<i>Canis latrans</i>
California ground squirrel (sign)	<i>Otospermophilus beecheyi</i>
California vole (sign)	<i>Microtus californicus</i>
western brush rabbit	<i>Sylvilagus bachmani</i>
Botta's pocket gopher (sign)	<i>Thomomys bottae</i>
mule deer	<i>Odocoileus hemionus</i>
<i>Birds (9/26/2017)</i>	
turkey vulture	<i>Cathartes aura</i>
red-tailed hawk	<i>Buteo jamaicensis</i>
American kestrel	<i>Falco sparverius</i>
northern harrier	<i>Circus cyaneus</i>
Say's phoebe	<i>Sayornis saya</i>
California quail	<i>Callipepla californica</i>
bush tit	<i>Psaltriparus minimus</i>
great egret	<i>Ardea alba</i>
western bluebird	<i>Sialia mexicana</i>
savannah sparrow	<i>Passerculus sandwichensis</i>
American crow	<i>Corvus brachyrhynchos</i>
song sparrow	<i>Melospiza melodia</i>
<i>Birds (4/14/2017)</i>	
European starling	<i>Sturnus vulgaris</i>
black phoebe	<i>Sayornis nigricans</i>
yellow warbler	<i>Melospiza crissalis</i>
red-winged blackbird	<i>Agelaius phoeniceus</i>
tree swallow	<i>Tachycineta bicolor</i>
chipping sparrow	<i>Spizella passerina</i>
mallard	<i>Anas platyrhynchos</i>
cliff swallow	<i>Petrochelidon pyrrhonota</i>
western meadowlark	<i>Sturnella neglecta</i>
yellow-rumped warbler	<i>Setophaga coronata</i>
Canada goose	<i>Branta canadensis</i>

**Table 3.4-1
Common Wildlife Species Observed on the Estero Trail Project Site**

Common Name	Scientific Name
western kingbird	<i>Tyrannus verticalis</i>
orange-crowned warbler	<i>Vermivora celata</i>

Source: Dudek 2018.

Special-Status Resources

For the purposes of this evaluation, special-status plant species are those plants listed, proposed for listing, or candidates for listing as threatened or endangered by the CDFW under the California Endangered Species Act (CESA) or by the USFWS under the federal Endangered Species Act (ESA), and plants that have a California Rare Plant Rank (CRPR) of 1 or 2 in the CNPS's online Inventory of Rare and Endangered Plants (CNPS 2018b). Special-status wildlife species are those that are listed as threatened or endangered (or candidate for listing) on the state CESA (Fish & Game Code, § 2050 et seq.) or federal ESA (16 U.S.C. § 1531 et seq.); meet the CEQA definition for endangered, rare, or threatened (Cal. Code Regs., tit. 14, § 15380(b),(d)); are considered fully protected (FP) under the state Fish & Game Code, § 3511, 4700, 5050, and 5515; or that are on the CDFW *Special Animals List* (CDFW 2018b) and determined by CDFW to be a Species of Special Concern (SSC).

As noted in the Methods of Analysis section below, various agency databases were queried and reviewed to identify special-status species known to occur on the site or in the project site region. For those species identified as such, the potential for each species to occur on the project site was based on a review of vegetation communities and available land cover types, habitat types, soils, and elevation preferences, as well as the known geographic range of each species. In addition, the potential for occurrence also incorporated the results of previous biological studies (identified in the Summary of Previous Studies discussion above) conducted on the project site. Species were not expected to occur when the site was clearly outside the known geographic range of the species, or if there was no suitable habitat for the species on and immediately adjacent to the site.

Special-Status Plants

To address concerns raised in comment letters on the NOP that previously conducted surveys for special-status plants were not conducted during the appropriate blooming periods, focused protocol-level surveys were conducted in 2017 to coincide with the blooming periods of those special-status plant species with potential of occurring on the site. Results of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) searches revealed 90 special-status plant species as occurring in the project site region or that have potential to occur in the

vicinity of the project site. Of these, 80 were removed from consideration due to the lack of suitable habitat within or immediately adjacent to the project site, or because the project site is outside of the species' known range, and are therefore not addressed further in this EIR. Information on the literature/database review and the field survey methods can be found in Appendix C.

Of the remaining ten special-status plant species with potential to occur on the site, eight have a moderate potential to occur, one has a high potential to occur, and one was observed on the site during the rare plant surveys. These are discussed in more detail further below and presented in Table 3.4-2.

**Table 3.4-2
Special-Status Plant Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur Within the Project Site
golden larkspur	<i>Delphinium luteum</i>	FE/CR/1B.1	Chaparral, coastal prairie, coastal scrub; rocky/perennial herb/Mar–May/0–328	Moderate potential to occur. The grassland on site may provide potentially suitable habitat for this species. The nearest documented occurrence for this species is located approximately 1.3 miles west of the project site (CDFW 2017).
western leatherwood	<i>Dirca occidentalis</i>	None/None/1B.2	Broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland; mesic/perennial deciduous shrub/Jan–Mar (Apr)/82–1,394	Moderate potential to occur. The drainages on site provide potentially suitable habitat for this species. It was not observed during the 2017 botanical surveys.
fragrant fritillary	<i>Fritillaria liliacea</i>	None/None/1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland; often serpentinite/perennial bulbiferous herb/Feb–Apr/10–1,345	Moderate potential to occur. Mesic areas in the grassland on site may provide potentially suitable habitat for this species. The nearest documented occurrence for this species is located directly north and adjacent to the project site; however, this occurrence was last documented in 1924 (CDFW 2017).

**Table 3.4-2
Special-Status Plant Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur Within the Project Site
woolly-headed gilia	<i>Gilia capitata</i> ssp. <i>tomentosa</i>	None/None/1B.1	Coastal bluff scrub, valley and foothill grassland; serpentinite, rocky, outcrops/annual herb/May–July/33–722	Moderate potential to occur. Rocky outcrops in the grassland on site may provide potentially suitable habitat for this species. The nearest documented occurrence for this species is located approximately 2 miles west of the project site (CDFW 2017).
congested-headed hayfield tarplant	<i>Hemizonia congesta</i> ssp. <i>congesta</i>	None/None/1B.2	Valley and foothill grassland; sometimes roadsides/annual herb/Apr–Nov/66–1,837	Present. This species was documented at the site during the 2017 botanical surveys.
Baker's goldfields	<i>Lasthenia californica</i> ssp. <i>bakeri</i>	None/None/1B.2	Closed-cone coniferous forest (openings), coastal scrub, meadows and seeps, marshes and swamps/perennial herb/Apr–Oct/197–1,706	Moderate potential to occur. Mesic areas in the grassland on site may provide potentially suitable habitat for this species. The nearest documented occurrence for this species is located directly north and adjacent to the project site; however, this occurrence was last documented in 1934. There are multiple other occurrences documented within 5 miles of the project site (CDFW 2017).
Point Reyes checkerbloom	<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	None/None/1B.2	Marshes and swamps (freshwater, near coast)/perennial rhizomatous herb/Apr–Sep/10–246	Moderate potential to occur. The mesic habitat within the stream and at seeps within the project site may provide potentially suitable habitat for this species. The nearest documented occurrence for this species is located approximately 0.7 mile east of the project site (CDFW 2017).
purple-stemmed checkerbloom	<i>Sidalcea malviflora</i> ssp. <i>purpurea</i>	None/None/1B.2	Broadleaved upland forest, coastal prairie/perennial rhizomatous herb/May–June/49–279	Moderate potential to occur. The grassland on site provides potentially suitable habitat for this species. There are two documented occurrences for this species within 5 miles of the project site (CDFW 2017)

**Table 3.4-2
Special-Status Plant Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur Within the Project Site
two-fork clover	<i>Trifolium amoenum</i>	FE/None/1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine)/annual herb/Apr–June/16–1,362	High potential to occur. The grassland on site provides potentially suitable habitat for this species. This species has been previously documented in 1945 in a non-specific area that includes the project site, as well as more recent occurrence approximately 1 mile south of the project site (CDFW 2017).
San Francisco owl's-clover	<i>Triphysaria floribunda</i>	None/None/1B.2	Coastal prairie, coastal scrub, valley and foothill grassland; usually serpentine/annual herb/Apr–June/33–525	Moderate potential to occur. Potentially suitable habitat for this species occurs in the grassland on site. The nearest documented occurrence for this species is located approximately 2.5 miles southwest of the project site along the coast (CDFW 2017).

Status Legend:

FE: Federally listed as endangered

FT: Federally listed as threatened

SE: State listed as endangered

ST: State listed as threatened

CRPR 1A: Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere

CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Plant Species Potentially Occurring or Known to Occur on the Project Site

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*, CRPR 1B.2) is an annual herb found in valley and foothill grassland habitats and occasionally along roadsides. It was observed in several areas of the site during the 2017 botanical surveys. These populations were mapped and are depicted in Figure 5 of the 2017 Botanical Report (Appendix C).

Two-fork clover (*Trifolium amoenum*, federally Endangered, CRPR 1B.1) is an annual herb found in coastal bluff scrub and valley and foothill grassland habitat. It has a high potential to

occur on the project site due to the availability of suitable grassland habitat and a recent occurrence record from approximately one mile south of the site.

Golden larkspur (*Delphinium luteum*, federally Endangered, California Rare, CRPR 1B.1) is a perennial herb found in chaparral, coastal prairie, and coastal scrub habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat and a documented occurrence record located approximately 1.3 miles west of the project site.

Western leatherwood (*Dirca occidentalis*, CRPR 1B.2) is a perennial deciduous shrub found broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat within the drainages on site.

Fragrant fritillary (*Fritillaria liliacea*, CNPS 1B.2) is perennial bulbiferous herb found in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat and documented occurrence located directly north and adjacent to the project site; however, this occurrence was last documented in 1924.

Woolly-headed gilia (*Gilia capitata* ssp. *tomentosa*, CRPR 1B.1) is an annual herb found in coastal bluff scrub and valley and foothill grassland habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat, and there is a documented occurrence approximately 2 miles west of the project site.

Baker's goldfields (*Lasthenia californica* ssp. *bakeri*, CRPR 1B.2) is a perennial herb found in closed-cone coniferous forest (openings), coastal scrub, meadows and seeps, and marshes and swamps. It has a moderate potential to occur on the project site due to the availability of suitable habitat, and there is a documented occurrence located directly north and adjacent to the project site; however, this occurrence was last documented in 1934. There are multiple other occurrences documented within 5 miles of the project site.

Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*, CRPR 1B.2) is a perennial rhizomatous herb that is found in marshes and swamps (freshwater and near the coast). It has a moderate potential to occur on the project site due to the availability of suitable habitat, and there is a documented occurrence for this species approximately 0.7 mile east of the project site.

Purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*, CRPR 1B.2) is a perennial rhizomatous herb found in broadleaved upland forest and coastal prairie habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat, and there are two documented occurrences for this species within 5 miles of the project site.

San Francisco owl's clover (*Triphysaria floribunda*, CRPR 1B.2) is an annual herb found in coastal prairie, coastal scrub and valley and foothill grassland habitats. It has a moderate potential to occur on the project site due to the availability of suitable habitat, and there is a documented occurrence located approximately 2.5 miles southwest of the project site along the coast.

Special-Status Wildlife

Results of the CNDDDB and IPaC searches indicated 30 special-status wildlife species known to occur within a five-mile radius of the site (Table 3.4-3). Of these, 16 species are not expected to occur on the project site due to the presence of marginally suitable nesting or breeding habitat or the lack of such habitat, or the site is outside of the species' known range. Of the remaining fourteen species, ten were observed on the site, either from previous studies or the most recent surveys conducted in 2017/2018, and four have some potential or moderate potential to occur on the site. These fourteen species are listed in Table 3.4-3 and discussed in more detail further below.

A separate habitat assessment was performed for the federal- and state-listed endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) and Ridgway's rail (*Rallus obsoletus*) by Californian Environmental Services in June 2018 (Appendix C). No suitable habitat for either of these species was detected within or immediately adjacent to the project site, and there have been no documented occurrences of either of these species within 5 miles of the project site in the last 35 years. The saltgrass and pickleweed vegetation within the coastal brackish marsh habitat bordering the Estero is not of adequate height or density to provide cover for either of these species. Therefore, these species are not discussed further in this EIR. In addition, biologists with the County conducted dip-net surveys within various pools on the site for the California freshwater shrimp (*Syncaris pacifica*), a state- and federally-listed endangered species endemic to Marin, Napa, and Sonoma counties. No observations of this species were noted and this species is not discussed further in this EIR.

As previously noted, Dudek conducted a habitat assessment and daytime surveys to determine suitability for and presence/absence of California red-legged frog and western pond turtle in suitable habitat areas on the project site. Both of these species were observed on the project site and were previously observed during the County's 2014 biological assessment. Detailed information on the methods and results of these surveys can be found in Appendix C.

**Table 3.4-3
Special-Status Wildlife Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur within the Project Site
<i>Invertebrates</i>				
Myrtle's silverspot butterfly	<i>Speyeria zerene myrtleae</i>	FE/None	Myrtle's silverspot is a medium sized butterfly in the brush foot family. Adult butterflies are typically found in areas that are sheltered from the wind, below 250 m (820 feet) elevation, and within 3 miles of the coast. They are found in coastal dune or prairie/grassland habitat. Four populations are known to inhabit western Marin and southwestern Sonoma counties, including the Point Reyes National Seashore.	Moderate potential to occur. Suitable habitat (including the larval food plant for this species) exists on the project site and there are documented occurrences of this species just south of the Estero.
<i>Amphibians and Reptiles</i>				
California red-legged frog	<i>Rana draytonii</i>	FT/SSC	California red-legged frogs occur in different habitats depending on their life stage, the season, and weather conditions. Breeding habitat includes coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams. These frogs also breed in artificial impoundments including stock ponds, irrigation ponds, and siltation ponds. Creeks and ponds with dense growths of woody riparian vegetation, especially willows (<i>Salix</i> spp.) are preferred, although the absence of vegetation at an aquatic site does not rule out the possibility of occupancy. Adult frogs prefer dense, shrubby or emergent riparian vegetation near deep (≥ 2 to 3 feet), still or slow moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail occur adjacent to open water.	Observed. An adult and three juveniles were observed in pools associated with the two unnamed drainages on the site during surveys on September 26, 2017. Adult and juvenile frogs observed in Pond 1, and tadpoles observed in the central drainage, by County biologists in 2014.

**Table 3.4-3
Special-Status Wildlife Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur within the Project Site
western pond turtle	<i>Emys marmorata</i>	None/SSC	Western pond turtles use both aquatic and terrestrial habitats. They are found in rivers, lakes, streams, ponds, wetlands, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Western pond turtles prefer areas that provide cover from predators, such as vegetation and algae, as well as basking sites for thermoregulation. Adults tend to favor deeper, slow moving water, whereas hatchlings search for slow and shallow water that is slightly warmer. Terrestrial habitats are used for wintering and usually consist of burrows in leaves and soil. Western pond turtles also lay their eggs in terrestrial habitats. They are rarely found at altitudes above 1,500 meters.	Observed. One adult western pond turtle was observed in a residual pool within drainage ID-02 during surveys on September 26, 2017. One adult also observed in the central drainage near the confluence with the Estero by County biologists in 2014.
<i>Birds</i>				
northern harrier	<i>Circus cyaneus</i>	None/SSC	Northern harrier utilizes marshes, fields, and prairies. Found in open terrain, both wet and dry habitats, where there is sufficient ground cover. Often found in marshes, especially during nesting season, but sometimes will nest in dry open fields. Usually hunts by flying low over fields, scanning the ground.	Observed. This species was observed foraging over the site during surveys on September 26, 2017. Also observed during surveys conducted in 2012 by Heaton. Suitable marsh and grassland nest habitat occurs onsite.
white-tailed kite	<i>Elanus leucurus</i>	None/FP, SSC	Nests and forages in open, low elevation foothills and valleys within grasslands, meadows, and rangeland with scattered trees and woodland areas for nesting.	Observed. While suitable foraging habitat is present, limited nesting potential. Species observed foraging on the site by Heaton in winter of 2011/2012.
Bryant's savannah sparrow	<i>Passerculus sandwichensis alaudinus</i>	None/SSC	Inhabits coastal salt marshes and moist grasslands, primarily within and just beyond the fog belt.	Observed. Grasslands on the site represent suitable nesting and foraging habitat. Observed in winter and during breeding season by Heaton (2012) and County (2014).

**Table 3.4-3
Special-Status Wildlife Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur within the Project Site
grasshopper sparrow	<i>Ammodramus savannarum</i>	None/SSC	Dense grasslands on rolling hills, lowland plains, and in valleys. Favors native grasslands with a mix of grasses, forbs and scattered shrubs.	Observed. Species observed by Heaton in 2012 during nesting season.
saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	None/SSC	Fresh and salt water marshes in the San Francisco Bay region, in fresh and salt water marshes. Requires dense vegetation with tall grasses, tule patches, willows for nesting.	Some potential to occur. Marsh habitat within the central drainage provides suitable habitat. No CNDDB occurrences within 5 miles (CDFW 2018) and not observed during previous surveys.
burrowing owl	<i>Athene cunicularia</i>	None/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows. No breeding records in Sonoma County for the past 20 years.	Observed. Species observed during the winter in 2012 by Heaton. Not observed during the County's 2014 surveys or during surveys conducted on the site in 2017 by Dudek. The site provides suitable foraging and nest burrow habitat.
short-eared owl	<i>Asio flammeus</i>	None/SSC	Grassland, prairies, dunes, meadows, irrigated lands, and saline and freshwater emergent wetlands	Observed. While there are no breeding occurrences within the Project site region, and no confirmed breeding observed onsite during various spring/summer surveys, the site has suitable foraging and cover habitat and species observed onsite during winter surveys in 2012 by (Heaton 2012).
yellow warbler	<i>Setophaga petechia</i>	None/SSC	Associated with riparian habitat, particularly willow and alder thickets in montane areas, and willow cottonwood riparian at lower elevations.	Observed. This species was observed during Dudek surveys on April 14, 2017.

**Table 3.4-3
Special-Status Wildlife Species Occurrence Potential on the Project Site**

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur within the Project Site
<i>Mammals</i>				
American badger	<i>Taxidea taxus</i>	None/SSC	Most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils. Will dig burrows for cover and breeding in friable soils.	Observed. Suitable habitat exists within the project site, and while no direct observations of this species have been made during various surveys on the site, recent and abandoned badger burrows were observed by the County in 2014. Historical occurrence records for this species on the site and just north of the site near Bodega, CA.
pallid bat	<i>Antrozous pallidus</i>	None/SSC	Pallid bat occupies a variety of habitats including grassland, shrubland, woodland and forests from sea level up through mixed conifer forest. Roosts in caves, mines, crevices and occasionally hollow trees or buildings. Prefers open habitats for foraging.	Moderate potential to occur. Suitable foraging habitat exists within the project site, and the barn and trees on the project site could provide suitable roosting habitat.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None/SSC	Townsend's big-eared bat is found throughout most of western North America. Hibernates and roosts in caves and mines near entrances, or cave like structures such as buildings or under decks. Forages in forested habitats, along open edges.	Low potential to occur. Suitable foraging habitat exists within the project site, not expected to utilize the onsite barn or outbuilding as roosting habitat due to ongoing use of these structures for ranching purposes. There are several occurrence records for this species approximately 5 miles west of the site in Bodega Bay, CA.

Status Legend:

FE: Federally listed as endangered

FT: Federally listed as threatened

SE: State listed as endangered

ST: State listed as threatened

FP: state Fully Protected

SSC: State Species of Special Concern

Wildlife Species Potentially Occurring or Known to Occur on the Project Site

Myrtle's silverspot butterfly (Speyeria zerene myrtleae; federally-listed Endangered) is typically found in coastal dune or prairie/grassland habitat that is sheltered from wind at elevations below

820 feet AMSL. Suitable habitat and larval host plants (western dog violet) are present throughout the site and there are occurrence records just south of the Estero on the southern boundary of the site.

California red-legged frog (*Rana draytonii*; federally-listed Threatened; CDFW Species of Special Concern) occurs in permanent and semi-permanent natural ponds and ponded backwater portions of streams. These frogs also breed in artificial impoundments including stock ponds, irrigation ponds, and siltation ponds.

Based on the results of the California red-legged frog (CRF) habitat assessment (Appendix C), suitable breeding habitat is present in Pond 3 and likely Pond 1 (in some years), as well as both intermittent drainages (ID-01 and ID-02). Pond 1 is considered seasonal, but has sufficient depth to support breeding in some years (likely only in average or above average rainfall years) and Pond 3 (which is generally perennial) appears to provide suitable breeding habitat in most years. Ponds 2 and 4 are relatively shallow and are unlikely to support breeding in most if not all years; however, CRF may utilize these ponds in the winter and spring/early summer for cover and foraging. Both of the intermittent drainages appear to provide suitable breeding habitat in most years, since high velocity flows are not likely to occur due to the short length of both drainages (approximately 1.3 miles each).

Additionally, some of the seeps and springs on the project site provide refugia and foraging habitat for CRF during the spring and summer months. CRF have historically been observed using the spring box located approximately 1,050 feet (320 meters) south of the barn. Suitable upland habitat is present adjacent to or in close proximity to all of the ponds and both intermittent drainages.

This species has been documented on the site previously (CDFW 2018) in one of the four small ponds that occur on the project site. In addition, adult and juvenile red-legged frogs were observed on the project site during the County's 2014 survey, in particular in Pond 1 (adults and juveniles) and in the central creek drainage (tadpoles). During the September 2017 surveys, one adult and one juvenile were observed in a pool associated with one of the unnamed intermittent drainages (ID-01) on the project site, and two juveniles were observed in a pool associated with another unnamed drainage (ID-02). A historical CNDDB record documented an observation in one of the on-site ponds (Pond 2). While none of the red-legged frog observations occur within any of the proposed trail alignments, two observations occur in close proximity to portions of the East Trail alignment and the historical sighting occurs in close proximity to a portion of the West Trail alignment. A more detailed discussion on the results of the survey is included in Appendix C.

Western pond turtle (*Actinemys marmorata*; CDFW Species of Special Concern) utilizes rivers, lakes, streams, ponds, wetlands, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters, and upland habitats adjacent to these areas for nesting.

Based on the results of the western pond turtle (WPT) habitat assessment performed for the project (see Appendix C), suitable aquatic habitat is present in Pond 1 (at least during part of the year when the pond is inundated), Pond 3, and both intermittent drainages (ID-01 and ID-02). Due to the shallow water depth and lack of cover in Pond 2, and the shallow water depth and presence of dense bulrush in Pond 4, it is unlikely that either of these features provide suitable aquatic habitat for WPT although WPT may utilize Pond 2 during the winter/spring while moving through the site.

Pond 1 is a seasonal feature and may provide suitable aquatic habitat during the winter/spring and early summer. Suitable nesting and aestivation habitat is present in the grasslands around this pond. Pond 3 appears to be perennial in most years and provides suitable aquatic habitat year-round. Vegetative cover occurs around much of the pond and upland nesting and aestivation habitat is common to abundant in the grasslands surrounding the pond. Both drainages ID-01 and ID-02 provide suitable aquatic habitat for WPT and the adjacent grasslands provide nesting and aestivation habitat for this species.

One western pond turtle was observed during the County's 2014 surveys on the site at the mouth of the central drainage near the confluence with the Estero. During the daytime surveys conducted in September 2017, one WPT adult was observed in an isolated pool in drainage ID-02. A more detailed discussion on the results of the survey is included in Appendix C.

Northern harrier (Circus cyaneus; CDFW Species of Special Concern) utilizes marshes, fields, and prairies and is found in open terrain (both wet and dry habitats) where there is sufficient ground cover. They are often found in marshes, especially during nesting season, but sometimes will nest in dry open fields. The Heaton 2012 report states "at least one Northern Harrier [was] detected during the breeding season" and several were observed during the non-breeding season including a possible roost-site was found in dense grasses on the hillside to the northwest of the barn complex. No northern harriers were observed on the site during the County's 2014 surveys in April and June, including use of the reported roost site. However, the taller more dense grasslands on the site provide suitable nesting habitat for this species. This species was observed flying over the site during the September 26, 2017 survey.

Yellow warbler (Setophaga petechia, CDFW Species of Special Concern) is associated with riparian habitat, particularly willow and alder thickets in montane areas and willow-cottonwood riparian habitats at lower elevations. While this species was not reported in the Heaton 2012 surveys or the County's 2014 surveys, it was documented on site along ID-01 during the Dudek surveys on April 14, 2017.

Saltmarsh common yellowthroat (Geothlypis trichas sinuosa; CDFW Species of Special Concern) occurs primarily in brackish marsh, freshwater marsh, salt marsh, and riparian woodland/swamp habitats. The species typically nests in dense emergent aquatic vegetation including areas dominated by cattails, tules, and willow scrub.

There are no occurrences of this species within 5 miles of the project property in the CNDDDB (CDFW 2018). This species was not observed during the 2011/2012 Heaton surveys, 2014 County surveys, or the 2017 Dudek surveys. However, the wetland and willow scrub vegetation along the central creek drainage and emergent wetland in the marsh habitat area near the confluence of the creek and the Estero provides suitable nest habitat for this species.

Grasshopper sparrow (Ammodramus savannarum; CDFW Species of Special Concern) is found in grasslands, hayfields and prairies. It breeds in dry fields and prairies, especially those with fairly tall grass and weeds and a few scattered shrubs. It also nests in overgrown pastures and hayfields, and sometimes in fields of other crops, where it forages mostly on insects and seeds. The Heaton 2012 survey observed at least six individual grasshopper sparrows on the project property concentrated on the flat ridge southwest of the barn and on the slopes of the surrounding drainages. Since these individuals were observed in June during the nesting season, it is presumed that the species nests onsite. Grasshopper sparrow was not observed during the County's 2014 surveys or during surveys conducted in 2017; however, suitable nesting habitat occurs within the annual grassland on site.

Bryant's savannah sparrow (Passerculus sandwichensis alaudinus; CDFW Species of Special Concern) is found in salt marsh and moist grasslands typically within and just above the fog belt. It is the only subspecies of savannah sparrow that breeds in Sonoma County. Suitable breeding and foraging habitat occurs throughout the project site. During the Heaton 2011/2012 surveys, Bryant's savannah sparrows were dispersed across the property and occurred at various locations, both in grazed and ungrazed grassland, during the nesting season. The species was also observed during the County's 2014 surveys on the site, but was not observed during the surveys conducted by Dudek in 2017.

White-tailed kite (Elanus leucurus; California Fully Protected) is a year-round resident of coastal and valley lowlands that forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands. It typically nests near the tops of trees within relatively dense stands in close proximity to open foraging habitat.

No nesting occurrences are included in the CNDDDB within 5 miles of the project site (CDFW 2018). White-tailed kites were observed on the property during the Heaton surveys although no evidence of nesting was detected. While no white-tailed kites were observed during the County's 2014 surveys nor the Dudek 2017 surveys, the grassland and marsh areas on the site represent suitable foraging and wintering habitat for the species. In general, tree nesting habitat is somewhat limited on the property; however, nesting within the few trees that do occur along the drainages cannot be entirely ruled out.

Burrowing owl (*Athene cunicularia*; CDFW Species of Special Concern) is typically found in dry grassland and open scrub habitats and may be found in prairie, rolling hills, and ranchlands. This ground-dwelling species utilizes abandoned small mammal burrows, often those of California ground squirrel and American badger, where there are unobstructed views of possible predators. Their diet consists of insects, small mammals, reptiles and amphibians.

Nesting by burrowing owls has not been documented in Sonoma County in over 20 years and is only infrequently observed in the County during the nonbreeding (winter) season (Sonoma County 2014). The Heaton 2012 survey observed an individual burrowing owl on March 4, 2011 (assumed to be a wintering owl or non-breeding owl as there is no indication in the Heaton report that this individual was breeding) and found evidence of burrowing owls, including pellets and whitewash, around numerous suspected badger burrow entrances during the 2010-2011 and 2011-2012 winter seasons. Three such burrows were located west of the central creek drainage and south of the barn on the project site (Heaton 2012, Figure 1) and all active burrows were located within ungrazed portions (generally western half) of the property. No evidence of nesting burrowing owls were observed during the spring and summer season surveys. The report noted that “Although surveys found a good number of suitable burrows on the property, nesting is not expected, as Burrowing Owls have not been known to nest in Sonoma County for over 20 years”. Although old burrowing owl pellets and whitewash was observed near an old collapsed badger burrow on the site during the County’s 2014 surveys conducted during this species nesting season, no individual burrowing owls or apparent active burrows, including nest burrows, were observed. Similarly, no burrowing owls or active burrows were observed during the 2017 spring/summer surveys conducted by Dudek.

The nearest documented occurrence record for this species is approximately 5 miles west of the site in Bodega Bay (CDFW 2018); and as noted above, no records of burrowing owls breeding in Sonoma County have been documented in over 20 years. In addition, neither the 2011/2012 or 2014 surveys documented the presence of breeding burrowing owls on the site even though avian surveys were conducted during the nesting season for this species. For these reasons, focused protocol-level surveys (pursuant to CDFW published protocols for this species) for breeding owls were not conducted in 2017. However, the focused protocol-level surveys for special-status plant species in 2017 were conducted by biologists also skilled in burrowing owl detection and during a time of year when breeding owls would be active; no burrowing owls were observed. Nevertheless, even if protocol-level nest surveys for burrowing owls were conducted in 2017 and found to be negative, it is assumed that because small mammal burrows (including those of American badger known to occur onsite) used by burrowing owls in a given nesting season can subsequently collapse due to cattle, erosion and inclement weather, or become inhabited by other species, burrowing owls could potentially be absent from a suitable nesting area the following nesting season, but again occupy that same area in a future season if suitable burrow habitat is available. Furthermore, because the project is proposed to be phased

in over a 3-4 year time period, and because habitat conditions can change from year to year, it is generally acceptable to conduct focused surveys for special-status species as close as possible (usually the blooming or breeding season just prior) to planned ground disturbance activities to ensure direct and indirect impacts to any such species, if present, can be avoided.

Therefore, because there is suitable nesting and foraging habitat for burrowing owl within the annual grassland on the site, in particular, onsite badger and other small mammal burrows could be used by burrowing owls as nest burrows, and because this species has been observed onsite during the winter months, the potential for this species to nest on the site at some point in the future cannot be entirely ruled out. Consequently, this analysis recommends that CDFW protocol-level surveys be conducted during the nesting season prior to ground-disturbance activities to ensure avoidance of any active burrows (see Impacts discussion further below).

Short-eared owl (Asio flammeus; CDFW Species of Special Concern) utilizes open terrain throughout California, including grasslands, prairies, and marshes. It nests and roosts on the ground and requires dense vegetation for cover.

The Heaton 2012 report documents several observations of wintering short-eared owls on the site, primarily in the western ungrazed portions of the property. Specifically, the report states “A good number of Short-eared Owls inhabited the Bordessa Ranch during the 2010-2011 and 2011-2012 winter seasons: at least 20 owls were observed during a survey conducted in winter 2010-2011, and at least 18 owls were observed the following winter. No Short-eared Owls were detected during the 2011 breeding season surveys. However, a fresh feather that was likely from a Short-eared Owl and a few appropriately-sized pellets were found in the vicinity of the pond on June 2, 2011. This is the same area where one of the landowners, Al Bordessa, reported seeing owls several times during April and May 2011”. No evidence of short-eared owl was detected during the County’s 2014 surveys, which corresponded to the species breeding season, and no evidence of this species was detected during the 2017 surveys. There is only one confirmed breeding record for Sonoma County and one for Marin County (CDFW 2018).

While no short-eared owls have been confirmed nesting on the property, suitable nesting habitat occurs in the annual grassland portion of the site and the potential for nesting on the site cannot be entirely ruled out.

American badger (Taxidea taxus; CDFW Species of Special Concern) is most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils for digging. Suitable habitat exists for this species throughout the grassland on the project site, and there are historical CNDDDB occurrence records for this species on the site and approximately 1.5 miles north of the site near the unincorporated community of Bodega. While no individual American badgers were observed during the County’s surveys in 2014 or Dudek’s surveys in 2017, a number of burrows indicating sign of activity (recent diggings, well-defined den openings with

freshly disturbed soil), as well as older inactive burrows, were observed in several locations within the grassland areas in 2014, including along and adjacent to the proposed East and West Trail Corridors. No American badgers or obvious sign of recent activity were detected during the reconnaissance-level surveys or focused rare plant surveys conducted in 2017. Because the rare plant surveys (conducted in April, May, and August) essentially covered the entire project site and were conducted at a time of year in which badgers would have been active, the surveys were determined to have been thorough enough to detect this species, or its burrows, if American badgers occurred on site at the time of these surveys. Therefore, additional focused surveys for this species (a NOP commenter recommended additional focused surveys for this species) were not considered warranted. However, suitable habitat for this species is present within the project site and because the species has previously occurred on the site the species could potentially occur there again in the future. The need for future surveys prior to ground disturbance is addressed in the Impacts section further below.

Pallid bat (Antrozous pallidus; CDFW Species of Special Concern) occupies a variety of habitats including grassland, shrubland, woodland and forests from sea level up through mixed conifer forest. This species roosts in caves, mines, crevices and occasionally hollow trees or buildings and prefers open habitats for foraging. While not a preferred roosting location (the species typically prefers natural crevices in trees, rocks, etc., pallid bats could potentially roost within the barn structure on site. The onsite scrub and grassland communities, riparian areas, and ponds provide suitable foraging habitat for this species. No formal roosting bat surveys have been performed on the property to date primarily due to access issues.

Townsend's big-eared bat (Corynorhinus townsendii; CDFW Species of Special Concern) hibernates and roosts in caves and mines near entrances, or cave-like structures such as buildings or under decks. It forages in a variety of habitats along open edges. This species is extremely sensitive to human disturbance. Therefore, while the barn structure on the site would normally provide potential roosting habitat for this species, because the barn is actively used in conjunction with the ongoing ranching activities on the site, it is highly unlikely that this species utilizes the structure as roosting habitat. The onsite scrub and grassland communities, riparian areas, and ponds provide suitable foraging habitat for this species. There are several historical occurrence records for this species approximately 5 miles west of the site near the town of Bodega Bay.

Sensitive Natural Communities

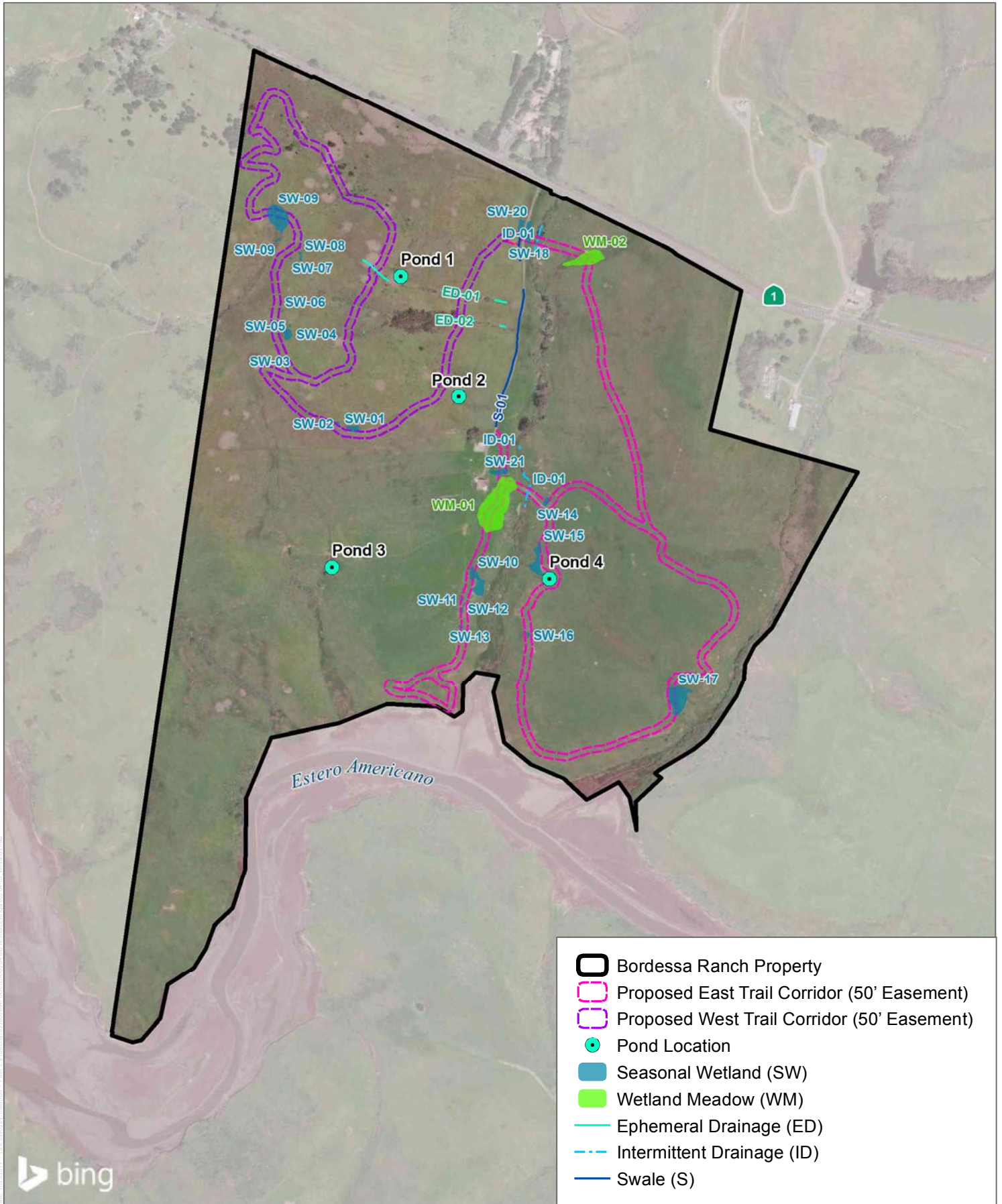
Sensitive natural communities (alliances and their associations) are defined by CDFW using Holland types (Sawyer, et. al. 2009). Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable) as identified in

the List of Vegetation Alliances and Associations (CDFG 2010) and subsequent updates, all associations within them are also considered to be highly imperiled. Impacts to sensitive habitats could be considered significant under CEQA.

Of the 10 vegetation communities/land cover types that occur within the project site, several are considered sensitive natural communities by CDFW, including riparian (arroyo willow thickets), wetlands, slough sedge swards, and purple needlegrass grassland. Although non-native California annual grassland on the site is not considered a sensitive habitat type by CDFW, slough sedge swards and purple needlegrass grasslands are located within the non-native annual grassland on site. Riparian habitat within the site is considered sensitive by CDFW, and any impacts to this habitat, including removal or trimming of vegetation, would potentially require a Streambed Alteration Agreement (SAA) with CDFW under Section 1602 of the California Fish and Game Code. Likewise, any work within the stream channel would potentially require permits from the ACOE and RWQCB under Sections 401 and 404 of the Clean Water Act, as discussed further below.

Potentially Jurisdictional Wetlands

A wetland delineation was performed on April 13 and 14, 2017, May 25 and 26, 2017, and August 2 and 3, 2017 by Dudek. Seven features were mapped, and included: seasonal wetland (2.72 acres), wet meadow (2.24 acres), vegetated roadside swale (1,320.76 linear feet), intermittent drainage (653.30 linear feet), ephemeral drainage (997.75 linear feet), and several ponds, as shown on Figure 3.4-3. These are described in more detail below and in the jurisdictional delineation report in Appendix C.



SOURCE: Bing Maps 2018; Sonoma County 2015

FIGURE 3.4-3

Wetlands and Waters of the U.S.

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Intermittent Drainages. There are two intermittent drainages (ID) within or directly adjacent to the project site. The central drainage (ID-01) has an average width of 3.5 feet, has an ordinary high water mark, flows from north to south through the center portion of the project site, and the proposed trail alignment crosses it twice. A second drainage (ID-02) runs along the eastern edge of the project site but is outside of the trail alignment. Both channels are characterized by defined bed and bank created by the flow of water through the systems. Common plant species associated with the intermittent drainage include rushes (*Juncus effuses*, *J. patens*, *J. mexicanus*), arroyo willow (*Salix lasiolepis*), velvet grass, and sweet vernal grass. Water was present in these drainages during the August surveys and is assumed to be present in deeper pools year-round; however, these features appear to flow only during the rainy season. Where water was ponded, species such as duckweed (*Lemna* spp.) and lanceleaf water plantain (*Alisma lanceolatum*) were present.

Ephemeral Drainages. Two ephemeral drainages (ED) occur within the western portion of the project site, draining water runoff from the western hills east to ID-01. Both ED-01 and ED-02 contain defined bed and banks but appear to maintain water flow only during the rainy season. ID-01 is approximately 1.5 feet wide on average and ED-02 is approximately 2 feet wide on average. Neither of these drainages held water during any of the surveys conducted. The southernmost drainage contains a mature overstory of blue gum while the other does not have a tree canopy. Common species observed in these drainages include Himalayan blackberry, bracken fern, sword fern, and hawthorn.

Vegetated Roadside Swale. One roadside swale (S-01) occurs parallel to the access road. It appears to drain water from the two ephemeral drainages south along the road to where it crosses under the roadway via culvert and into the central intermittent drainage. This swale is vegetated with grasses such as velvet grass and sweet vernal grass. Congested-headed hayfield tarplant was also present sporadically along this feature.

Freshwater Emergent Wetland. Freshwater emergent wetland is primarily associated with the central drainage (ID-01) within the project site. This wetland type is characterized by a high cover of rushes (*Juncus mexicanus*, *J. patens*, *J. effusus*), which prefer higher amounts of water throughout the year than surrounding vegetation.

Seasonal Wetlands. Seasonal wetlands within the project site appear to have some groundwater influence; however, they do not appear to maintain saturation to the extent of the seeps, as described below. These wetlands are located primarily in the western portion of the project site on hills and many were associated with microtopography and small depressions in the hillslopes.

Seasonal wetlands (SW) 01 through SW-21 are primarily located in the western hills of the project site, on west- and south-facing slopes. These features were delineated based on the three parameters for wetlands (soils, vegetation, hydrology). The dominance of slough sedge and poison hemlock shows the presence of hydrophytic vegetation. Hydric soils are present as indicated by redox features in a dark surface layer (Redox Dark Surface – Hydric Soil Indicator F6). The presence of oxidized rhizospheres along living roots (Wetland Hydrology Indicator C3) provides evidence of hydrology.

Seeps. Several of the seasonal wetlands appear to hold water on an annual basis due to increased groundwater influences. These seeps are areas where groundwater seeps through the top layers of soil, creating hydric conditions in an otherwise xeric area of grassland. Several seeps occur along the intermittent drainages and appear to contribute to the water flow of these systems. Vegetation observed within the seeps includes slough sedge, rushes, and poison hemlock.

Wet Meadow. Wet meadows are areas on site similar to seasonal wetlands and seeps; however, they are generally dominated by wetland grasses and span larger areas than seasonal wetlands and seeps. Similar to seasonal wetlands, wet meadows tend to remain wet during the rainy season and dry out during the dry months of the year. There are two wet meadows (WM) on site: WM-01 and WM-02. WM-01 is a large area dominated by Italian ryegrass just south and east of the barn. WM-02 is an area where water appears to settle between two hill slopes and is dominated by velvet grass and rushes.

Wildlife Corridors and Habitat Linkages

Wildlife corridors are landscape features, usually linear in shape, that facilitate the movement of animals (or plants) over time between two or more patches of otherwise disjunct habitat. Corridors can be small and even man made (e.g., highway underpasses, culverts, bridges), narrow linear habitat areas (e.g., riparian strips, hedgerows), or wider landscape-level extensions of habitat that ultimately connect even larger core habitat areas. Depending on the size and extent, wildlife corridors can be used during animal migration, foraging events, and juvenile dispersal, and ultimately serve to facilitate genetic exchange between core populations, provide avenues for plant seed dispersal, enable increased biodiversity and maintenance of ecosystem integrity within habitat patches, and help offset the negative impacts of habitat fragmentation. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping stones for wildlife dispersal (Hilty et al. 2006).

The California Essential Habitat Connectivity (EHC) Project, developed by CDFW and Caltrans, intends to describe and depict a functional network of connected wildlands that is essential to the continued support of California's diverse natural communities in the face of human

development and climate change (Spencer et al. 2010). The EHC Project identifies large, relatively natural habitat blocks (Natural Landscape Blocks) within the Bay Area Ecoregion that support native biodiversity and depicts the relative permeability of areas to provide some level of ecological connectivity (Essential Connectivity Areas, or ECAs) between these habitat blocks. The EHC Map indicates that the project site is comprised of Natural Landscape Blocks (NLB) that provide connectivity between similar habitats to the north and south (Figure 3.4-4). In particular, the intermittent and seasonal drainages that flow from the uplands in the northern portion of the site to the Estero on the southern boundary of the site are likely used by both special-status and common wildlife species to move between adjacent similar habitat areas. These areas also provide cover, breeding, and foraging habitat for resident species as well as those utilizing the drainages as movement corridors.

Estero Access

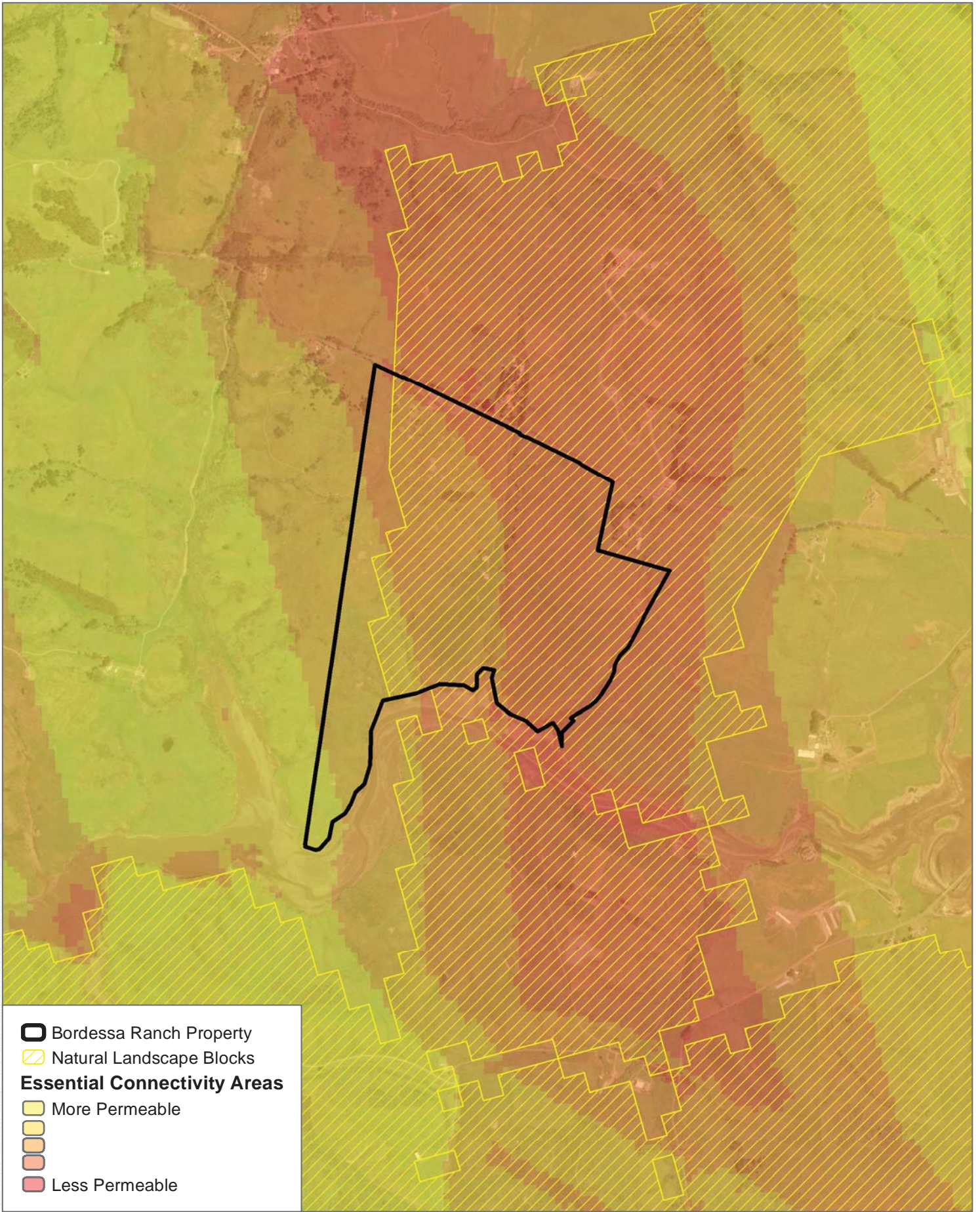
As previously discussed, future uses may also include limited, seasonal access to the Estero for hikers and hand-carried, non-motorized boats. Access to the Estero would be via the East Trail that would begin at the southern staging area the trail would head south to the Estero down the sloped bank to just west of the central property drainage and would cross the existing terrain (primarily mud flats) to the main Estero channel (Figure 3.4-5). Kayakers and boaters using the Estero may also stop and access the East Trail and trail amenities. The County is proposing an open mesh matting (to protect resources and reduce erosion) that would be approximately 5 feet in width and 400 feet in length. The two matting systems under consideration include a series of open mesh or grate-like hard plastic panels (GeoSystems GeoRunner or Geoterra) that snap together and secure with clips as well as anchors, if needed, that secure the mat to the soil surface. This design would allow sunlight to penetrate the ground allowing any vegetation to continue to grow, and would enable the system to be removed and/or relocated before large storm events.

The final location of the matting trail would be determined by the County Regional Parks Department in coordination with a qualified biologist to avoid/minimize impacts on sensitive natural resources. In addition, signage that includes information on the sensitive resources associated with the Estero and requirements to stay within the confines of the access matting would be installed at the beginning of and along the access trail. During the winter months, when storm events can induce flooding along the Estero and precarious conditions for recreational users, access to the Estero would be closed and the matting trail would be removed. The exact timing of winter closures and spring opening would likely vary depending on seasonal conditions, but would be determined by the County Regional Parks Department in consideration of expected weather patterns and forecasts.

While an exact location of this access trail is still to be determined, the general area in which the matting trail would occur is dominated by open, barren mudflats with occasional patches of low lying pickleweed (*Sarcocornia virginica*) vegetation for approximately 150 feet along the bank of the Estero (CES 2018). Pickleweed wetland is considered a special-status vegetation community by the CDFW (Sawyer, et. al. 2009).

The only special-status species that are often associated with pickleweed wetland in the region includes salt marsh harvest mouse (*Reithrodontomys raviventris*) and Ridgway's rail (*Rallus obsoletus*), both of which are state- and federally-listed as Endangered. Optimal habitat for salt marsh harvest mouse (SMHM) is a dense contiguous cover of pickleweed complexly interwoven with other halophytic plants such as fat hen (*Atriplex patula*) and alkali heath (*Frankenia grandifolia*) that retains a mid-range level of salinity (CES 2018). Recurrent, but shallow flooding by saline water is also needed to maintain habitat conditions that favor SMHM. Ridgeway's rail occurs almost exclusively in tidal salt and brackish marshes with unrestricted daily tidal flows, all of which tend to provide adequate invertebrate prey food supply, well-developed tidal channel networks, and suitable nesting habitat. High marsh habitat is also important to this species as shelter during high or storm tides.

Based on field visits conducted at the project site in June 2018, that focused specifically on an assessment of the suitability of habitat to support these two species, neither the planned trail corridors on the project site or the potential seasonal access trail from the site to the main Estero channel (East Trail) provides suitable habitat for these species. The planned trail corridors within the project site are all within upland habitat and the area in which the East Trail would occur is dominated by mudflats and lacks the dense contiguous vegetation required by the SMHM or the marsh habitat characteristics required by the Ridgeway's rail. In addition, no CNDDDB occurrence records for either species exists within 5 miles of the project site in the past 35 years. Because these species are not expected to occur on the project site or within the general area of the proposed Estero access trail, these two species are not addressed further in this document.

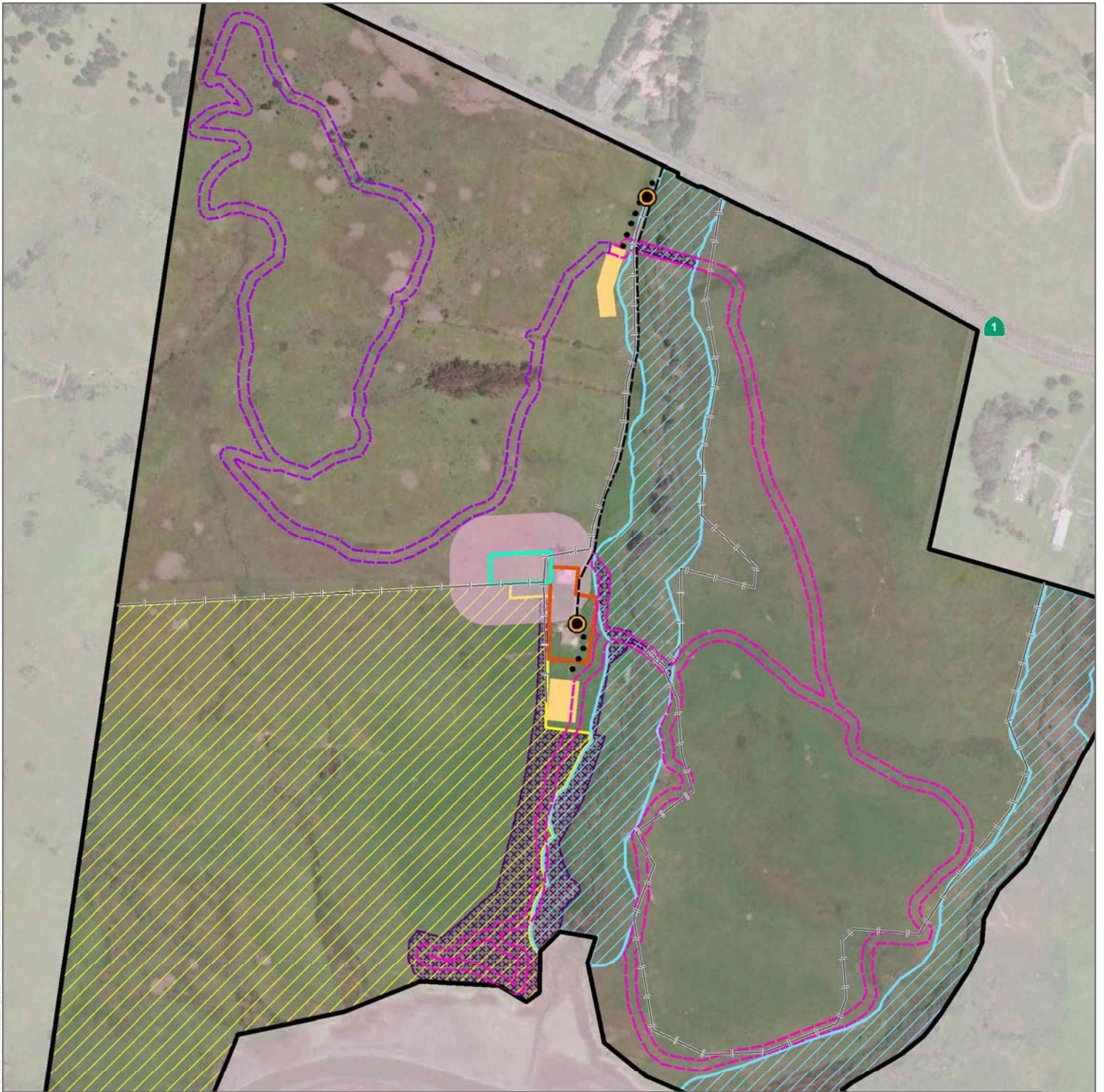


SOURCE: Bing Maps 2018; CDFW 2018

FIGURE 3.4-4

Essential Connectivity Areas

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SOURCE: USDA 2016; Sonoma County 2015

FIGURE 3.4-5

Estero Trail West and East Corridors

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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Regulatory Setting

Federal Regulations

Federal Endangered Species Act

Section 9 of the federal Endangered Species Act (ESA) protects federally-listed endangered and threatened wildlife species from unlawful take (16 U.S.C. § 1538 (a)(1)). “Take” is defined to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 U.S.C. § 1532 (19)). In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under ESA or result in the destruction or adverse modification of critical habitat designated for such species (16 USC 1536[3], [4]). Projects that would result in “take” of any federally-listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either Section 7 (interagency consultation) or section 10(a) (incidental take permit) of ESA, depending on whether the federal government is involved in permitting or funding the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country, and is enforced in the United States by the USFWS. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Federal Clean Water Act (Section 404)

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

Federal Clean Water Act (Section 401)

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the State’s water quality standards and criteria. In California, the authority to either grant

certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. The North Coast Regional Water Quality Control Board (NCRWQCB) has authority for Section 401 compliance in the project site. A request for certification is submitted to the regional board at the same time that an application is filed with the USACE.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of state-listed threatened or endangered species unless an incidental take permit is issued by CDFW pursuant to Section 2081 of the Act. The state definition of take is similar to the federal definition, except that the CESA does not prohibit indirect harm to listed species by way of habitat modification. Pursuant to the requirements of CESA, a State agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present and the extent to which the project could potentially result in take of such species. CDFW also maintains a Special Animals List which includes species considered of “Special Concern” in California. A Species of Special Concern is a species, subspecies, or distinct population of an animal native to California that typically meets the State definition of threatened or endangered but has not formally been listed; is experiencing serious (noncyclical) population declines or range retractions that, if continued or resumed, could qualify it for State threatened or endangered ; or has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.

Fish and Game Code Sections 1940, 3503, 3511, 3513 and 4150

Fish and Game Code Section 1940 requires CDFW to develop and maintain a vegetation mapping standard for the state. Over half the vegetation communities in the state have been mapped through the Vegetation Classification and Mapping Program.

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3511 protects species considered “fully protected”. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

Fish and Game Code Section 4150 states a mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A nongame mammal may not be taken or possessed under this code. All bat species occurring naturally in California are considered nongame mammals and are therefore prohibited from take as stated in Fish and Game Code Section 4150.

CDFW Lake and Streambed Alteration Agreement

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "... bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ..." (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

CDFW Wetlands Protection Regulations

CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each Regional Water Quality Control Board (RWQCB) as the principal state agencies responsible for the protection of water quality in California. As noted above, the NCRWQCB has regulatory authority over the project site.

The Porter-Cologne Water Quality Control Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "...any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The NCRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. As noted above, the NCRWQCB is the appointed authority for Section 401 compliance in the project site.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals, and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would “substantially reduce the number or restrict the range of an endangered, rare, or threatened species.” Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

California Coastal Act and Local Coastal Program

Through the California Coastal Act of 1976, the California Coastal Commission (Commission) became tasked with the protection of coastal resources including shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, hazards, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, power plants, ports, and public works facilities. For further explanation of the Commission’s responsibilities, please see the California Coastal Act, Chapter 3 policies (Sections 30200 - 30265.5). Coastal Act policies encourage the productive maintenance and protection of marine resources and designated Environmentally Sensitive Habitat Areas (ESHAs). They also require that new development be located and designed to minimize risks to life and property from geologic hazards and flooding; and to avoid substantial alteration of natural land forms.

Local Coastal Programs (LCPs) are basic planning tools used by local governments to guide development in the coastal zone, in partnership with the Coastal Commission. LCPs contain the ground rules for future development and protection of coastal resources in coastal cities and counties. The LCPs specify appropriate location, type, and scale of new or changed uses of land and water. Each LCP includes a land use plan and measures to implement the plan (such as zoning ordinances). Prepared by local government, these programs govern decisions that determine the short- and long-term conservation and use of coastal resources. While each LCP reflects unique characteristics of individual local coastal communities, regional and statewide interests and concerns must also be addressed in conformity with Coastal Act goals and policies. Following adoption by a local government, an LCP is submitted to the Coastal Commission for review for consistency with California Coastal Act requirements.

After an LCP has been approved, the Commission’s coastal permitting authority over most new development proposals is transferred to the local government, which applies the requirements of the LCP in reviewing proposed new developments. The Commission retains permanent coastal permit jurisdiction over development proposed on tidelands, submerged lands, and public trust lands, and the Commission also acts on appeals from certain local government coastal permit decisions. The Commission reviews and approves any amendments to previously certified Local Coastal Programs.

State Coastal Conservancy

The State Coastal Conservancy provided funds to the Sonoma County Agricultural Preservation and Open Space District (District) to purchase the conservation easement; the acquisition of the Trail Easement was a requirement of this funding. As part of the agreement with the District, the conservation easement includes provisions to permanently protect the conservation values of the Bordessa Ranch property including sensitive natural resources, habitat connectivity between the Estero and adjacent open grasslands, open space and scenic views, agricultural resources, and recreation and education. The conservation easement designates as “Forever Wild” a 138-acre area that includes sensitive habitat for American badger and burrowing owls, to protect it in perpetuity from potential disturbances caused by grazing, recreation or allowable building on the property. The conservation easement also designates the two north-south drainages on the project site as “Natural Areas” and includes a no disturbance setback extending 150 feet from the top of bank on either side of each drainage. The conservation easement also requires the landowners to complete a rangeland management plan (RMP) that integrates natural resources protection goals with cattle grazing for the remainder of the property. The RMP would be prepared in consultation with a certified rangeland manager, is subject to approval by the District and Conservancy, and will govern the landowners’ management of the property.

Greater Farallones National Marine Sanctuary

Designated in 1981, the Gulf of the Farallones National Marine Sanctuary (GFNMS) overseas 1,279-square-miles (966 square nautical miles) just north and west of San Francisco Bay, and protected open ocean, nearshore tidal flats, rocky intertidal areas, estuarine wetlands, subtidal reefs, and coastal beaches within its boundaries. The NMSA requires that the Office of National Marine Sanctuaries (ONMS) prepare regulations to implement the NMSA and national marine sanctuary management plans (15 CFR Part 922).

The ONMS regulations prohibit specific kinds of activities within the national marine sanctuaries, as set forth in Subpart H of section 922.82 of the Code of Federal Regulations. Prohibited activities within the GFNMS, include “[c]onstructing any structure other than a navigation aid on or in the submerged lands of the Sanctuary; placing or abandoning any structure on or in the submerged lands of the Sanctuary ...”

The GFNMS Management Plan (NOAA 2008) provides comprehensive and coordinated conservation and management of the marine resources. The sanctuary includes Bolinas Bay, Bolinas Lagoon, most of Tomales Bay, Estero Americano, Estero de San Antonio, and Bodega Bay.

In order to be consistent with the guiding legislation established in the NMSA, the GFNMS has identified the following priority goals:

- Improve the conservation, understanding, and wise and sustainable use of marine resources;
- Enhance public awareness, understanding, and stewardship of the marine environment;
- Maintain for future generations the habitat and ecological services of the natural assemblage of living resources that inhabit these areas;
- Maintain the natural biological communities to protect, and where appropriate, restore and enhance natural habitats, populations, and ecological processes;
- Provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities;
- Create models of and incentives for ways to conserve and manage these areas, including the application of innovative management techniques; and
- Cooperate with global programs encouraging conservation of marine resources.

Local Regulations

Local Sonoma County Coastal Plan

In 1981, Sonoma County adopted the Coastal Plan, Coastal Zoning Ordinance, and Coastal Administrative Manual planning documents prepared under specific requirements of State law, and intended to provide an intermediate level of detail between the 1978 General Plan and site development plans submitted to the County for approval. The 1978 General Plan focused on policies of County wide significance and utilized generalized graphics to illustrate land use, open space and other elements.

In 1989, the County adopted an update of the 1978 General Plan. The General Plan update provided parcel-specific information concerning land use and open space. The General Plan update also included "area policies" in an attempt to focus particular attention on a specific area or parcel. Because of this level of specificity in the General Plan update, the Board of Supervisors determined that several of the specific plans, including the Coastal Plan, Coastal Zoning Ordinance, and Coastal Administrative Manual, were either duplicative or conflicted with the updated General Plan. The Board of Supervisors further determined that to the extent the

specific plans and coastal documents provided policy guidance beyond that provided by the General Plan update, that such plans should be reviewed and revised to ensure complete consistency with the General Plan. The General Plan includes a discussion of these specific plans and the Coastal Plan documents in Land Use Element Section 2.1.1 under Policy LU-1a.

The Coastal Plan covers an area which is 55 miles in length and extends inland generally 1,000 yards from the mean tide line. In significant coastal estuarine habitat and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high boundary is generally 3000 to 12,000 feet inland from shoreline, except around Duncan Mills, Willow Creek and Valley Ford, where it extends up to five miles inland.

The Environment Chapter of the Coastal Plan identifies rare and endangered plant locations, bird and animal habitats, wetlands, riparian corridors and other areas which are very sensitive to disturbance are mapped as Sanctuary Preservation or Conservation areas. In Sanctuary Preservation areas, essentially no development other than nature trails is allowed. In Conservation Areas no development is allowed unless an environmental study determines that the project can be accomplished with no adverse effects. Other management recommendations are proposed for each specific resource or habitat area.

Sonoma County General Plan 2020

The Sonoma County General Plan Open Space and Resource Conservation (OSRC) Element provides guidance for the protection of biological resources in Sonoma County as set by its citizens and elected officials (Sonoma County 2016). The plan includes the following goals and policies related to biological resources applicable to the project:

Goal OSRC-7: Protect and enhance the County's natural habitats and diverse plant and animal communities.

Objective OSRC-7.1: Identify and protect native vegetation and wildlife, particularly occurrences of special status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity.

Objective OSRC-7.5: Maintain connectivity between natural habitat areas.

Objective OSRC-7.6: Establish standards and programs to protect native trees and plant communities.

Objective OSRC-7.7: Support use of native plant species and removal of invasive exotic species.

Goal OSRC-8: Protect and enhance Riparian Corridors and functions along streams, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values.

Objective OSRC-8.3: Recognize and protect riparian functions and values of undesignated streams during review of discretionary projects.

Policy OSRC-8d: Allow or consider allowing the following uses within any streamside conservation area:

- (2) Streamside maintenance and restoration
- (4) Road crossings, street crossings, utility line crossings
- (11) Creekside bikeways, trails, and parks within Urban Residential, Commercial, Industrial, or Public-Quasi Public land use categories.

Sonoma County Municipal Code – Riparian Corridor Combining Zone

Article 65, Sec. 26-65-005 (Ordinance No. 6089) of the County’s Municipal Code includes the RC combining zone, which was established by the County to protect biotic resource communities, including critical habitat areas within and along riparian corridors to protect and enhance riparian corridors, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, wildlife habitat and movement, fisheries, water quality, opportunities for recreation, education and aesthetic appreciation and other riparian functions and values. Uses permitted within the RC combining zone include, but is not limited to: stream maintenance and restoration, invasive plant removal, road and utility line crossings in compliance with county road construction standards, grazing and similar agricultural production, fire fuel management in compliance with county fire safe standards, bikeways, trails, and parks on publicly owned land or public use easements, and a temporary seasonal gangway and floating dock of up to one hundred twenty square feet (120' sq.) with encapsulated floatation and grated deck.

Impacts

Methods of Analysis

The analysis of impacts of the proposed project on biological resources is based on a review of special-status species and sensitive habitat occurrence records and literature review, multiple field assessments, and a review of comments provided in response to the NOP and the prior

MND prepared for the project. In addition to the physical environmental impacts resulting from disturbance of the project site, the analysis of impacts on biological resources also evaluates the proposed project's consistency with applicable prohibitions, policies, and goals of the above federal, state, and local regulations. An overview of the site assessments conducted and literature reviewed for the project is provided earlier in this section.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and with policies included in the County's General Plan, a significant impact would potentially occur if development associated with the proposed project 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on state or federally protected wetlands (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 any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The significance of impacts to biological resources was assessed by comparing the potential changes resulting from the proposed project to these significance thresholds. An evaluation of whether or not an effect on biological resources would be "substantial" with respect to the significance thresholds generally considers the following:

- amount and/or extent of the resource (numbers, acres, etc.) to be affected versus preserved;
- the relative biological value (rarity, functions and values) and/or sensitivity status of the resource and its relevance within a specified geographical area;

- the type and severity of impact, (i.e., would the project adversely affect wildlife through mortality, injury, displacement, or habitat loss or adversely impact vegetation through destruction of a sensitive plant population?);
- timing of the impact, (i.e., would the impact occur at a critical time in the life cycle of a special-status plant or animal, such as breeding, nesting, or flowering periods?);
- duration of the impact, (i.e., whether the impact is temporary or permanent).

The analysis of direct and indirect impacts covers construction, operation, and maintenance of the proposed trail system and associated infrastructure. Direct impacts include those that occur immediately as a result of the proposed project on a particular biological resource. Indirect impacts include those that are caused by the proposed project later in time, but that are still reasonably certain to occur.

Significance Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable and therefore, not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

In 2005, the Santa Rosa Plain Conservation Strategy was developed to address recovery of special-status species in Sonoma County, including California tiger salamander (Sonoma population), Burke's goldfields, Sonoma sunshine, Sebastopol meadowfoam, and many-flowered navarretia. To date, local governmental agencies have not yet been able to complete the implementing ordinances and, therefore, the Conservation Strategy has not been approved. No other Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) exists in the County. The project would not conflict with any approved HCP, NCCP, or similar regional conservation plan; therefore, the significance threshold associated with potential conflicts with these plans is not further evaluated in this document. Also, while most impacts discussed below associated with operation of both trail corridors assume the trail users would be those who arrived by vehicle, bicycle, or on foot via the East Trail, it is possible that kayakers or other boaters using the Estero could access the site from the Estero via the proposed East Trail. It is assumed that such individuals would utilize the trails in the same manner as expected use from users accessing the site from SR 1 and that no additional impacts would occur.

Project Impacts and Mitigation Measures

3.4-1: The proposed project could have a substantial adverse effect on 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. This is considered a potentially significant impact.

Several special-status wildlife and plant species have the potential to occur within the project site including the proposed trail corridors. Direct impacts could occur as a result of removal or disturbance of suitable habitat during construction which, in turn, could result in disturbance, injury, or mortality of individual animals or plants. Indirect impacts, which generally include those that occur later in time as a result of maintenance and operation activities but that are reasonably foreseeable, can include disturbance to on-site habitats and wildlife within and in the vicinity of the trail alignments as a result of recreational use of the trail, including from domestic animals. Of note, and as described in Chapter 2, Project Description, domestic dogs, horses and other pets would be prohibited from using the trails or being present anywhere on the Bordessa Ranch property, including in the staging/parking lots and areas in the vicinity of the trails. Signs would be posted at the entrance to each parking lot, at the trailheads and at several locations along each trail to educate trail users about the policy. If users are found to be in non-compliance with this measure, a fine may be imposed by the ranger at any time.

The following describes more specifically the direct and indirect impacts that could potentially occur as a result of construction and/or operation and maintenance of the proposed trails to those special-status plant and wildlife species identified as occurring or potentially occurring within the project site. The discussion below also addresses many comments received in response to the NOP including concerns associated with trail impacts to special-status birds as well as common bird species nesting along the trail route; impacts to roosting bats; impacts to California red-legged frog and western pond turtle; impacts to burrowing owl and American badger and the need for additional surveys for these species; impacts to western dog violet and the need for silverspot butterfly surveys; interpretive signage not being placed within riparian or wetland habitat; and disturbance related to human encroachment on the site.

Special-Status Plant Species

As discussed above, several special-status plant species including golden larkspur, western leatherwood, fragrant fritillary, woolly-headed gilia, Baker's goldfields, Point Reyes checkerbloom, purple-stemmed checkerbloom, two-fork clover, and San Francisco owl's-clover have a moderate or high potential to occur. One species, congested-headed hayfield tarplant was detected during the 2017 protocol-level plant surveys within both of the proposed trail corridors.

Construction-related activities could result in destruction of individual plants or populations of plants that may be located near or within the proposed trails at the time of ground disturbance. There are approximately 4.52 acres of congested-headed hayfield tarplant within the both of the proposed trail corridors (which includes a 50-foot buffer on either side), and staging areas. Furthermore, increased human presence from off-trail use can result in trampling and/or destruction of special-status plant populations. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Special-Status Wildlife Species

American Badger

As previously noted, American badger is known to historically occur on the project site as well as in the vicinity of the project site (approximately 1.5 miles north of the site near the unincorporated community of Bodega), and suitable habitat exists for this species within the site. In addition, a number of badger burrows, some that appeared to be active, were detected in various locations within grassland areas of the site during the County's 2014 surveys. While no badgers or recent evidence of badgers were observed during the site-wide plant and other surveys conducted on the site in 2017, the site could be used in the future for breeding, cover and foraging by this species, and could also be used as a movement corridor between adjacent patches of suitable habitat. If occurring on the project site within proposed ground disturbance areas just prior to or during construction, potential direct impacts include direct harm or mortality to individual animals, loss of active dens, and loss of suitable denning and foraging habitat. Potential indirect impacts include disturbance to active dens as a result of off-trail use by visitors. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Pallid bat and Townsend's big-eared bat

Both pallid bat and Townsend's big-eared bat are known to occur in the vicinity of the project site. As previously discussed, Townsend's big-eared bat is particularly sensitive to human disturbances and activities and therefore is not expected to roost in the on-site barn or adjacent outbuilding because of the ongoing use of the barn in association with ranching activities on the property. The East Trail is proposed to be constructed approximately 50 feet east of the existing barn. A staging area is also proposed to occur approximately 120 feet south of the barn, and the proposed access road to the staging area would be situated approximately 25 feet from the east side of the barn. While surveys for bats were not able to be conducted in the barn due to access issues, for the purposes of this EIR, pallid bat, which has a higher tolerance for human disturbances, is assumed to be potentially using the barn and/or adjacent outbuilding (though such use may be limited due to ongoing human activity associated with these structures) as roosting habitat.

While the barn and outbuilding would not be directly affected by trail construction, pallid bats utilizing these structures could be adversely affected by construction noise. Potential direct effects with respect to general construction-related noise on bats include acute acoustic trauma, degradation of physiological condition and social order, avoidance of foraging areas, and disturbance from and/or abandonment of roost sites (Caltrans 2016). In particular, loud ultrasonic noise (i.e., those having frequencies above the range of human hearing >20 kilohertz [kHz]) can deter bats from accessing and using known roosts (Caltrans 2016). Depending on noise attenuation rates and other factors, construction equipment such as graders, dozers and diesel engines can produce sound at a dBA that is high enough to disturb roosting bats. Similarly, studies have shown that high frequency laser survey tools inaudible to the human ear, but within range of bat auditory capabilities (19-28 kHz), can also disturb active roosts (Johnston et. al. 2004).

As noted in Chapter 2, Project Description, construction of the trails would be done by hand tools and in some areas with the use of small equipment. Use of such tools in constructing the portion of the East Trail closest to the barn is not expected to generate noise levels that would adversely affect any roosting bats within the barn. However, some heavy equipment is expected to be used in the construction of the staging area proposed to occur approximately 120 feet south of the barn and in association with the road and drainage improvements to the access road to the staging area which would be situated approximately 25 feet from the east side of the barn. As noted in Chapter 2, development of the staging area, East Trail, and improvements to the access road near the barn structure would primarily occur during the drier spring and summer months when pallid bats, if utilizing the barn, would likely be present.

As previously noted, the barn and outbuilding are currently used in the ongoing ranching operations of the property and, as such, human and cattle activity within and around these structures regularly occur. If pallid bats are utilizing the barn or outbuilding as a daytime roost site, it is assumed that these bats are fairly adapted to human activities and disturbances given the ongoing use of the facilities for cattle ranching activities. Consequently, noise levels and human activity associated with construction of the staging area and access road improvements, particularly because they are temporary in nature and only expected to last approximately four weeks, are not expected to adversely affect individual bats that are using the barn as a roost site. However, if a maternity roost was within the barn or outbuilding at the time of construction activities, particularly if such activities generated noise and disturbance levels above that normally incurred by ongoing ranching activities, the potential for adverse noise and disturbance impacts to the roost cannot be entirely ruled out and would be considered a significant impact pursuant to the CEQA significance threshold identified above. Furthermore, if the barn and/or outbuilding were to be removed or upgraded/remodeled as part of future development within the ABE or RBE which is not included as part of the project and outside of the scope of this EIR, any active daytime roosts or maternity roosts would be adversely affect and could result in injury and/or mortality of bats.

With respect to future recreational use of the trail corridor near the barn, very little research, if any, has been conducted regarding the type, extent, and frequency of recreational trail use that could adversely affect roosting bats. It would likely depend on the number of visitors to the site, the level, frequency, timing, and extent of trail use activities, as well as any such activities off-trail and in close proximity to the barn. It is also presumed that most recreational use of the trails would occur in the spring and summer months when these two bat species, if present, would be using the barn. However, and as noted above, it is assumed that any bats roosting or otherwise using the barn or outbuilding, if at all, are fairly adapted to human activities and disturbances and any off-trail activity near these structures by hikers or other recreationists are not expected to result in adverse impacts to roosting bats. In addition, because the property is in a somewhat remote area, overall use of the trails would not be expected to be as high and as frequent as other trail systems in the region. Furthermore, and as noted above, domestic dogs, horses and other pets would be prohibited from using the trails or being present anywhere on the Bordessa Ranch property.

As noted in Chapter 2, interpretive and wayfinding signage in the staging areas, at the trailheads, at vista points along the trails, and at the Estero would be erected. In addition to providing information on where to park, ranch management and seasonal activities, allowable uses, hours of operation, and trail access and maps, specific signage with information on the flora and fauna (including bats) along and adjacent to the trails, the sensitivity and ecological value of specific areas and habitat types, and the need to restrict all recreational activity to the trails, would be provided at key locations along the trails, particularly in close proximity to sensitive resource areas. Therefore, potential direct and indirect impacts associated with trail operations are not expected to significantly impact pallid bats that may be using the barn or outbuilding as roost habitat.

Burrowing owl

As previously noted, there has only been one documented occurrence of burrowing owls breeding within Sonoma County in over 20 years. However, the project site provides suitable nesting and foraging habitat for burrowing owl and this species could utilize any ground squirrel burrow along the proposed trail corridors. The avian report compiled by Heaton in 2012 did not document burrowing owl nesting on the site, although one individual was observed during the nesting season on March 4, 2011. Several burrows that appeared to be used by burrowing owls for shelter were observed in the winter months during the 2011 and 2012 surveys. No individual burrowing owls or apparent active burrows were observed by the County in surveys conducted in 2014, although what appeared to be old/abandoned burrows were detected. No burrowing owls or owl burrows (either active or abandoned) were identified during the site visits conducted in 2017. However, as previously discussed, because this species has been observed on the site in the past and because suitable nesting and foraging habitat occurs on the project site, the potential for nesting by this species on the site in the future cannot be entirely ruled out.

Therefore, in the remote chance that burrowing owls are breeding on the site prior to project initiation, construction-related activities could potentially result in injury or mortality to individual burrowing owls and/or active nest burrows (including eggs and/or chicks) as a result of equipment or vehicles collapsing an active burrow. Construction activities could also cause an adult owl to abandon an active nest that is in close proximity to the ground disturbance area and therefore leave eggs or chicks vulnerable to predation or without provisions. Increased human activity immediately adjacent to an active nest burrow due to trail use after construction, or due to off-trail use by visitors in an area containing active owl burrows, could also cause adult owls to abandon an active burrow resulting in likely mortality of any eggs or young. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Short-eared owl

A Short-eared owl was observed on the property during surveys in the winter of 2011-2012, as noted in the Heaton (2012) report. However, there were no observations of short-eared owls on the property during the spring and summer surveys conducted in 2014 or 2017, and there are no documented CNDDDB occurrences of short-eared owl in the vicinity of the project site. However, because of the suitability of onsite grasslands as potential nesting habitat for this species, the potential for this species to nest on the site in the future cannot be entirely ruled out. Short-eared owl nests on the ground and could use any grassy area along both of the proposed trail corridors for nesting. Should this species nest on the project site prior to project implementation, potential impacts would essentially be identical to those described above for burrowing owl. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Northern harrier

Individual northern harriers were observed on the property in 2011 and 2012 by Heaton (2012) and in 2017 by Dudek; however, no active nests have been observed on the property. The avian report compiled by Heaton in 2012 states “at least one Northern Harrier [was] detected during the breeding season” and “In January 2012, a possible Northern Harrier roost-site was found in tall, dense grasses on the hillside to the northwest of the barn complex”. Should this ground-nesting species nest on the site prior to project implementation, potential impacts would essentially be identical to those described above for burrowing owl. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

White-tailed kite

White-tailed kites were observed on the property during the Heaton surveys, although no evidence of nesting was detected. No white-tailed kites were observed during the County's 2014 surveys nor the Dudek 2017 surveys. The grassland and marsh areas on the site represent suitable foraging and wintering habitat for the species. In general, tree nesting habitat is somewhat limited on the property; however, nesting within the few trees that do occur along the drainages cannot be entirely ruled out. Should this species nest on the site prior to construction activities associated with project implementation, construction activities could cause an adult kite to abandon an active nest that is in close proximity to the ground disturbance area and therefore leave eggs or chicks vulnerable to predation and inclement weather conditions, and without provisions. Increased human activity immediately adjacent to an active nest due to trail use after construction, or due to off-trail use by visitors in an area containing an active nest, could also cause adult kites to abandon an active nest resulting in likely mortality of any eggs or young. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Yellow warbler, Bryant's savannah sparrow, grasshopper sparrow, salt-marsh common yellowthroat

A Yellow warbler was observed in drainage ID-01 on the property during surveys conducted in 2017 by Dudek, but not observed during the Heaton 2011/2012 surveys or the County's 2014 surveys. Bryant's savannah sparrow was observed during the Heaton 2011/2012 surveys and during the County's 2014 surveys within both in grazed and ungrazed grassland in various locations on the site. Grasshopper sparrow was observed during the Heaton surveys on the flat ridge southwest of the barn and on the slopes of the surrounding drainages; this species was not observed during the 2014 or 2017 surveys. Saltmarsh common yellowthroat was not observed during any of the avian surveys conducted on the site. Suitable nesting and foraging habitat for all four of these species occurs on the project site.

Should any of these species be nesting on the site prior to project implementation, impacts in the form of direct harm or mortality to individual animals during vegetation removal and construction of the creek crossing, loss of active nest sites due to vegetation removal, or abandonment of active nest sites during construction and possibly due to increased human presence associated with off-trail use could occur. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

California red-legged frog

As previously noted, a juvenile and adult CRF were observed in drainage ID-01 and two juvenile CRF were observed in drainage ID-02 during the surveys conducted in September 2017. The proposed trails would avoid those ponds on site that provide aquatic habitat for CRF. However, portions of the proposed East Trail corridor occur along drainages ID-01 and ID-02, and at one point the trail crosses over drainage ID-01, in which CRF were observed in 2017. Construction-related impacts to CRF can include direct harm or mortality to individual animals as a result of construction of creek crossings; bridge construction can also result in temporary erosion and siltation that can adversely affect egg masses. Destruction of suitable upland refugia habitat that is adjacent to these drainages can occur in the form of grading or laying gravel for parking or equipment staging areas. Indirect impacts from trail users can include disturbance of CRF by trail users at creek crossings, disturbance of eggs, tadpoles or adult frogs by users that go off trail and into the drainages or along edges of drainages, and siltation of drainages by users that go off-trail and wander along edges of drainages. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Western pond turtle

As previously noted, one WPT adult was observed in an isolated pool in drainage ID-02 in the 2017 Dudek surveys and one WPT was observed during the County's 2014 surveys at the mouth of the central drainage near the confluence with the Estero. This species could also potentially occur within other pools along ID-02 or in ID-01. Portions of each of these drainages are adjacent to proposed trail alignments. The trail design would avoid ponds on site that provide aquatic habitat for WPT. Construction-related impacts to WPT can include direct harm or mortality of individual turtles during construction of creek crossings and of turtles that may be seeking shelter within suitable upland refugia habitat adjacent to the drainages in the form of grading or laying gravel for staging areas. Intermittent drainages ID-01 and ID-02 have been classified as Natural Areas in the Conservation Easement and include setbacks on either side of each drainage of 150 feet from the top of the bank of the drainage. The proposed trail corridors would be constructed outside of these setbacks. Indirect impacts can include disturbance of WPT by trail users at creek crossings, disturbance of juvenile and adult WPT by users that go off trail and into the drainages or along edges of drainages, and siltation of drainages by users that go off-trail and wander along edges of drainages. Additionally, users that go off-trail could disturb or damage nests of WPT within 325-feet of suitable aquatic habitat. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Myrtle's silverspot butterfly

Suitable habitat and larval host plants (western dog violet) for Myrtle's silverspot butterfly are present on the project site and this species has been historically documented south of the site near the Estero (CDFW 2018). While no Myrtle's silverspot butterfly were documented on the site during rare plant surveys conducted in 2017, several populations of the host plant were observed. Should this species occur on the site during project implementation, impacts to this species could include destruction of suitable host plants or injury or mortality to individual butterflies (or larva) during grading activities. Impacts associated with trail use can include injury/mortality of butterflies or larva and trampling of host plants by recreational users who deviate off-trail. These potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts.

Common native nesting birds

In addition to the special-status species bird species discussed above, all common native birds and their active nests (nests that are in the process of being constructed, or that contain eggs, hatchlings, or young) in California are protected by regulations in the California Fish and Game Code as well as the federal MBTA. Should common native birds be nesting on the site prior to project implementation, potential adverse impacts can include direct harm or mortality to individuals due to construction equipment, abandonment of an active nest by adults due to construction noise and activity in close proximity to the nest leaving eggs and young vulnerable to predation and/or inclement weather, and destruction of an active nest due to vegetation removal or grading activities. These potential direct and indirect impacts associated with construction of the project could potentially be in violation of the California Fish and Game Code as well as the federal MBTA and are considered substantial effects on a special-status species and, therefore, would be considered a significant impact.

Conclusion

Construction and implementation of the proposed project could result in impacts to special-status plant species including congested-headed hayfield tarplant and special-status wildlife including American badger, burrowing owl, short-eared owl, Northern harrier, White-tailed kite, Yellow warbler, Bryant's Savannah sparrow, salt-marsh common yellow throat, California red-legged frog, Western pond turtle, Myrtle's silverspot butterfly and nesting birds resulting in a **significant impact**.

Mitigation Measures

Measures to mitigate potentially significant impacts on special-status plant and wildlife species, known to occur or potentially occurring on the project site, are described below. The level of significance after mitigation is included immediately following each mitigation measure.

BIO-1 Worker Environmental Awareness Training

All construction workers shall receive a worker environmental awareness training (WEAT) to be conducted by a qualified biologist. The WEAT may also be conducted through a video or Powerpoint presentation created by a qualified biologist specifically for this project. The WEAT shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project site, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities including the name/contact information of the monitoring biologist, and the nature and purpose of protective measures including best management practices (BMPs) and other required mitigation measures. They shall also be instructed as to sensitive resource areas, including wetlands and waters of the U.S., to avoid within the project site other than where impacts have been authorized, and relevant laws and regulations for each resource.

Conducting WEAT training has proven very effective in ensuring construction workers understand how to recognize and avoid special-status species. Compliance with this measure would help to ensure impacts to special-status species would be reduced to less than significant.

BIO-2 Trail Alignment Fencing and Interpretive Signage

To minimize the potential for direct and indirect impacts to sensitive biological resources occurring on the project site by recreational users venturing off-trail, and to help keep visitors contained within the trail alignments, exclusionary fencing may be used in strategic areas to protect sensitive resources. Specifically, the purpose of the fencing shall be to avoid/minimize the following associated with off-trail use by visitors: (1) trampling and disturbance to on-site special-status plant populations; (2) harassment, disturbance, injury and/or mortality to on-site special-status wildlife species; (3) sedimentation, erosion, or other degradation to the on-site ponds, drainages, and other aquatic/riparian features; and (4) disturbances to nesting native bird species.

As stated in Chapter 2, Project Description, new or re-located fencing and gates would also be designed to accommodate cattle grazing as well as to minimize conflicts between trail users, cattle grazing, and ranch activities. To accommodate the ability of cattle to access various areas within the Bordessa property, fencing shall not extend the

entire length of the trail alignments, but would focus on areas of the trails adjacent to sensitive biological habitats or areas where special-status plant and/or wildlife species are known to occur.

The fencing design (including openings to accommodate cattle), extent, location, and overall construction of the fence shall be at the discretion of County Regional Parks Department in coordination with the Bordessa Ranch landowners, the Sonoma County Agricultural and Preservation Open Space District (District), and a qualified biologist. The fence shall be visually appealing and harmonize with the general landscape (e.g., wooden buck or post/rail type fences) and not detract from the overall visitor experience while discouraging off-trail use. The fence design shall also provide for the ability of wildlife species to move through or over the fencing such that movement perpendicular to the fencing would not be adversely inhibited. A fencing design plan that addresses the design and location factors discussed above shall be prepared prior to project construction and shall be approved by the County Regional Parks Department with review by the Bordessa Ranch landowners, the District, and a qualified biologist with expertise on the species and ecosystems on the property.

As discussed in Chapter 2, Project Description, interpretive signage would be provided in the staging areas, at the trailheads, at vista points along the trails, and at the Estero; additional interpretive signage providing information about sensitive plant and wildlife species would also be provided at key locations along the trails. Signage content addressing sensitive plant and wildlife species shall be prepared by the County Regional Parks Department in coordination with a qualified biologist.

Installation of fencing to protect special-status species as well as interpretative signage would help ensure inform trail users of the various protected species on the site and would protect sensitive areas if trail users venture off site. Compliance with this measure would ensure impacts to protected species are reduced to less than significant.

BIO-3 American Badger

To avoid/minimize direct and indirect impacts on American badger as a result of project implementation, the following measures shall be implemented:

1. Protocol-level surveys for American badger shall be completed within 30 days prior to construction to determine the locations of any active dens within 200 feet of proposed ground disturbance areas. Surveys shall consist of presence/absence surveys to determine if any winter or natal American badger dens occur within the project site. Potential badger burrows/dens located during the survey shall be evaluated (typically with remote cameras) to determine activity status. Surveys shall

- be performed by a qualified biologist familiar with badger life history and that possesses experience with identification of active badger burrows and badger activity patterns.
2. Any natal dens determined to be used by American badger, as identified from the surveys, shall be avoided and a 100-foot buffer shall be established around the dens during ground disturbance activities until it is determined by the qualified biologist that the den is no longer active and the young are no longer dependent upon the den for survival.
 3. If construction occurs during the non-breeding period (typically from June through February) and an active non-natal den is found to be within or immediately adjacent to the construction footprint, an attempt can be made by a qualified biologist to trap or flush the individual and relocate it to designated open space on the site. Trapping can only be conducted by a qualified biologist with the appropriate permits and credentials. After a trapping or flushing effort is completed, and/or after it is confirmed that a natal den is no longer active, the vacated den can be excavated and upon confirmation that the den is not occupied, the den can be collapsed and construction can proceed.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2, and BIO-3 would avoid/minimize direct and indirect impacts to American badger by ensuring any active natal badger dens are avoided, that badgers are out of dens that need to be excavated, and by restricting visitors to the established trails, such that the potentially significant impacts to this species would be reduced to a less-than-significant level.

BIO-4 Special-Status Bats

As described in Chapter 2, Project Description, all trail construction would be done by hand or with the use of small equipment. Construction of the access road and staging areas adjacent to the barn facility and outbuilding would require the use of heavy equipment such as graders. To ensure that the noise of such equipment would not adversely affect any maternity roosts that could occur within the barn or outbuilding, a pre-construction survey shall be conducted by a qualified bat biologist to determine if active maternity roosts exist within the barn or outbuilding. If maternity roosts are observed, and construction of the access road and/or staging areas adjacent to the barn or outbuilding would occur at the time the roosts are active, equipment emitting ultrasonic noise (i.e., those having frequencies above the range of human hearing >20 kilohertz [kHz]) shall be prohibited from the construction area until the maternity roost is no longer active, as determined by the qualified bat biologist. Alternatively, equipment that emits noise with frequencies <20 kHz can be used to grade and prepare the access

road and staging areas adjacent to the barn and outbuilding. As previously noted, signage describing the sensitivity of biological resources shall be located at various key points along the trails. One located at the southern staging area might include interpretation of importance of bats and protected species and penalties for disturbance of species and habitat, reminding users of the importance of staying on designated trails. Fencing may also be used as necessary to keep users on trail and away from the barn, roosting bats, and ranching activities.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-4 would avoid/minimize direct and indirect impacts to potential roosts of pallid bats in the adjacent barn structure by ensuring potential noise levels associated with construction in proximity to the barn and outbuildings are below levels that would potentially disturb any maternity roosts and by ensuring that visitors are restricted to the established trails, such that the potentially significant impacts to these species would be reduced to a less-than-significant level.

BIO-5 Burrowing Owl

To avoid/minimize direct and indirect impacts on burrowing owls as a result of project implementation, the following measures shall be implemented:

1. Protocol-level surveys for burrowing owls shall be conducted 30 days prior to scheduled construction activity that is conducted during the breeding season (March through August) to determine whether burrowing owls are present on site and, if so, their breeding status. Surveys shall be conducted by a qualified biologist with experience conducting such surveys.
2. If during the surveys burrows are observed being used by non-nesting burrowing owls within the construction footprint, construction work shall cease until owls are evacuated from any such burrow using a California Department of Fish and Wildlife-approved burrow closure procedure in accordance with the California Department of Fish and Game “Staff Report on Burrowing Owl Mitigation” (CDFW 2012) and by a qualified biologist. Once owls from any such burrow have been successfully evacuated, the burrow can be collapsed and construction work can proceed.
3. If nesting burrowing owls are observed during these surveys, construction work within 300 feet of active nest burrows shall be delayed until young have fledged and are independent of the nest burrow, as determined by a qualified biologist. The qualified biologist may reduce the 300-foot setback based on the type, timing, extent, and intensity of the construction activity and other factors such as site topography and vegetation cover between the construction activity and the burrow. Once any young have fledged and are no longer dependent upon the nest burrow, the same

burrow closure procedure described above shall be used to confirm the burrow is inactive before ground disturbance activities can continue near the burrow.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-5 would avoid/minimize direct and indirect impacts to burrowing owls potentially breeding on the site by ensuring that any active owl nest burrows are avoided until any young have fledged, ensuring no owls within non-breeding burrows are harmed, and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to this species would be reduced to a less-than-significant level.

BIO-6 Native Nesting Birds

To avoid/minimize direct and indirect impacts on nesting birds within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:

1. A nesting bird survey shall be completed by a qualified biologist no earlier than two weeks prior to construction of the trails and associated infrastructure during the nesting season for most bird species in this region (March 1-August 30) to determine if any native birds are nesting within 300 feet of the proposed disturbance area (500 feet for raptors).
2. If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined by the qualified biologist. The avoidance buffer distance shall consider such factors as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.
3. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. Any woody vegetation (shrubs and trees) needing removal for trail construction shall be removed, as feasible, outside of the bird nesting season (Sept. 1 - Feb. 31) to avoid impacts to nesting birds.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2, and BIO-6 would avoid/minimize direct and indirect impacts to native bird species potentially nesting on the project site by ensuring that any active bird nests are avoided until young have fledged and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to native bird nests would be reduced to a less-than-significant level.

BIO-7 Short-eared owl, Northern Harrier, White-tailed kite, Yellow Warbler, Bryant's savannah sparrow, Grasshopper sparrow, Saltmarsh common yellow-throat

To avoid/minimize direct and indirect impacts on these special-status bird species within or adjacent to the proposed trail corridors as a result of project implementation, the following measure shall be implemented:

1. The nesting bird survey described in Mitigation Measure BIO-6 shall include searches for short-eared owl, northern harrier, white-tailed kite, yellow warbler, Bryant's savannah sparrow, grasshopper sparrow, and saltmarsh common yellow-throat if construction and ground disturbance activities shall occur during the nesting season of these species. If active nests are located during the surveys, the same avoidance/minimization measures described in this measure shall also be implemented.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-6 would avoid/minimize direct and indirect impacts to these special-status bird species potentially nesting on the site by ensuring that any active nests are avoided until young have fledged and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to active nests of these bird species would be reduced to a less-than-significant level.

BIO-8 California Red-legged Frog

To avoid/minimize direct and indirect impacts to California red-legged frog (CRLF) within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:

1. Exclusion fencing shall be installed around any trail construction and associated work areas that occur within 100 feet of suitable CRLF aquatic habitat (including Ponds 1-4 and ID-01 and ID-02) to prevent CRLF from entering the work area. In addition, siltation fences shall be installed along the aquatic features to minimize siltation and/or erosion into the features during construction.
2. During any construction work conducted within 100 feet of suitable CRLF habitat, a qualified biologist shall be on site to monitor the work effort and conduct regular surveys within the 100-foot setback area, including potential upland refugia habitat, in search of individual CRLF. If CRLF are observed within the buffer areas, work shall be postponed until either (1) the frogs move away from that location on their own, or (2) the frogs are removed and relocated to a safe location by a qualified biologist that possesses a 10(a)1(a) Recovery permit and has approval from USFWS.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-8 would avoid/minimize direct and indirect impacts to CRLF potentially occurring within the pond and drainage aquatic features during construction activities by ensuring that frogs cannot enter into active work areas, by ensuring that aquatic habitat areas are protected from siltation and erosion, and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to CRLF and associated aquatic habitat would be reduced to a less-than-significant level.

BIO-9 Western Pond Turtle

To avoid/minimize direct and indirect impacts to western pond turtle within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:

1. Exclusion fencing shall be installed around any trail construction and associated work areas that occur within 100 feet of suitable western pond turtle (WPT) aquatic habitat (including Ponds 1-4 and ID-01 and ID-02) to prevent WPT from entering the work area. In addition, siltation fences shall be installed along the aquatic features to minimize siltation and/or erosion into the features during construction.
2. During any construction work occurring within 100 feet of suitable WPT habitat, a qualified biologist shall be on site to monitor the work effort and conduct regular surveys within the 100-foot setback area in search of individual CRLF. If WPT are present within the buffer areas, work shall be postponed until either (1) the turtles move away from that location on their own, or (2) the turtles are removed and relocated to a safe location within the project site by a qualified biologist.
3. Because WPT use upland grassland habitat near aquatic habitat (typically within 325 feet of aquatic sites) for nesting and aestivation, a pre-construction survey for WPT shall be conducted by a qualified biologist prior to any ground disturbance activities occurring within suitable nesting/aestivation habitat (as determined by the biologist) within 325 feet of these aquatic sites. If active nesting and/or aestivation sites are identified, these areas shall be avoided during construction activities. If avoidance is not possible, the nest and/or turtle shall be removed by a qualified biologist and relocated to an appropriate location within the project site.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-9 would avoid/minimize direct and indirect impacts to WPT potentially utilizing on-site aquatic features or adjacent grassland habitat by ensuring that turtles cannot enter work areas, by ensuring that aquatic habitat areas are protected from siltation and erosion, that turtles nesting or aestivating

in upland areas adjacent to aquatic sites are not harmed, and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to WPT and associated aquatic habitats would be reduced to a less-than-significant level.

BIO-10 Myrtle's Silverspot Butterfly

To avoid/minimize direct and indirect impacts to Myrtle's silverspot butterfly, in particular its host plant western dog violet, within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:

1. To avoid/minimize impacts to Myrtle's silverspot butterfly, a pre-construction survey shall be performed no sooner than 30 days prior to the onset of construction to identify the presence of western dog violet along both trail corridors, and staging areas.
2. If any western dog violet plants are observed within areas proposed for ground disturbance, they shall be marked with pin flags and surveyed to determine if any silverspot butterfly eggs, larva or pupa are attached to the plants. If any of these life stages of the butterfly are observed attached to the plants, the plants shall be avoided until the pupa has metamorphosized into adult butterflies and are no longer attached to the host plants.

If avoidance of host plants is not considered possible, a qualified botanist shall be consulted to prepare a translocation plan to transplant the plants, once any pre-adult life stages of the butterfly are determined not to be present, to a suitable location on the project site. The plan shall contain, at a minimum, the following: (a) goals and objectives of the transplantation; (b) methods of collection and transplantation; (c) location of the area(s) on site in which the plants will be transplanted; (d) monitoring methods and timing; (e) success criteria; and (f) measures to be taken in the event that the transplantation is not successful. In addition, the plan shall be approved by the County and by the USFWS since this butterfly species is federally-listed as endangered.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-10 would avoid/minimize direct and indirect impacts to Myrtle's silverspot butterfly and its host plant by ensuring that any host plants within proposed ground disturbance areas are avoided to the extent possible, that any pre-adult life stages of this species are protected while it is attached to a host plant, by preserving through transplantation populations of the host plant that otherwise would be removed, and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to the Myrtle's silverspot butterfly would be reduced to a less-than-significant level.

BIO-11 Special-Status Plants

To avoid/minimize direct and indirect impacts to special-status plant populations within or adjacent to the proposed trail corridors as a result of project implementation, the following measures shall be implemented:

1. Prior to construction of the trails, a qualified botanist shall conduct surveys during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. Special-status plant populations identified during the pre-construction survey shall be mapped using a hand-held GPS unit and the final trail design shall be modified, where possible, to avoid these plant populations. Plant populations including a 10-foot buffer shall be temporarily fenced during construction activities with high-visibility fencing or prominently flagged. If complete avoidance of populations is infeasible, further measures, as described below, shall be necessary.
2. If avoidance of special-status plant species is not feasible, and to mitigate for 0.27 acres of occupied congested-headed hayfield tarplant habitat within areas of proposed disturbance, prior to ground disturbance, a Rare Plant Salvage and Translocation Plan shall be prepared by a qualified botanist and approved by the County prior to implementation. Because congested-headed hayfield tarplants are an annual species that reproduce from seed on an annual basis, recommended salvage methods include seed collection and/or top soil salvage. The Rare Plant Salvage and Translocation Plan shall include, at a minimum, the following:
 - a) Identification of occupied habitat to be preserved and removed;
 - b) Identification of on-site or off-site preservation, restoration, or enhancement locations;
 - c) Methods for preservation, restoration, enhancement, and/or translocation;
 - d) Goals and objectives;
 - e) Replacement ratio and success standard of 1:1 for impacted to established acreage;
 - f) A monitoring program to ensure mitigation success;
 - g) Adaptive management and remedial measures in the event that the performance standards are not achieved; and
 - h) Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

If any other special-status plant species are located on the project site (as a result of additional plant surveys that may be conducted) in areas to be disturbed by the

proposed project, a similar salvage and translocation plan shall be developed and implemented by a qualified botanist. However, if golden larkspur and/or two-fork clover, both federally-listed endangered species, are observed on the site during any future pre-construction surveys and are within areas to be disturbed, consultation with the USFWS may be required before any transplantation could occur.

Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-11 would avoid/minimize direct and indirect impacts to special-status plant species by ensuring that any plants within proposed ground disturbance areas are avoided to the extent possible, by preserving through transplantation populations of plants that otherwise would be removed, and by ensuring that visitors to the site are restricted to the established trails such that the potentially significant impacts to special-status plant species would be reduced to a less-than-significant level.

3.4-2: The proposed project could have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. This is considered a potentially significant impact.

The following describes the direct and indirect impacts that could potentially occur as a result of construction and/or operation and maintenance of the proposed trail system to sensitive natural communities identified as occurring within the project site. The discussion below also addresses comments received in response to the NOP and prior Mitigated Negative Declaration including concerns associated with trail impacts to streams and riparian habitat and to salt marsh habitat adjacent to the site (Estero area).

Three CDFW sensitive natural communities, riparian, slough sedge swards and purple needlegrass grasslands (within the California annual grasslands), were documented within the project site. In addition, pickleweed vegetation, also considered sensitive by the CDFW, occurs in areas between the southern property boundary and the main Estero channel.

Direct adverse impacts to the three sensitive communities within the project site include removal or disturbance of these habitats during construction, including impacts associated with a proposed bridge crossing over the northern portion of the central on-site drainage which supports riparian vegetation. Removal of vegetation within riparian areas, or any disturbance to the bed, bank, and/or channel of the drainages would require authorization from the CDFW in the form of a Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code. The proposed trail alignments would be constructed beyond the 150-foot Conservation Easement setback on either side of both on-site drainages, except in the location of the proposed crossing on the central drainage and a small location south of the barn. No

construction, staging areas, or other ground disturbance activities would be allowed within this setback area. Therefore, no direct removal or disturbance of riparian vegetation, or to the bed, bank, or channel of the drainages, is expected to occur as a result of the project except potentially associated with the proposed bridge crossing on the central drainage.

Indirect impacts to these sensitive natural communities include runoff and siltation during and immediately after construction, as well as the potential for increased off-trail human disturbance within these areas after the trail is completed.

As previously noted, the general location of the proposed seasonal access trail from the southern end of the project site to the Estero channel (East Trail) is dominated by mudflats with occasional small patches of pickleweed. Direct impacts to pickleweed include laydown of the trail matting over patches of pickleweed vegetation that do occur within the selected access alignment. However, due to the open mesh nature of the matting that would continue to allow plants access to moisture and sunlight, and because the trail matting would be removed during storm events and generally during the winter season, this impact is not expected to result in destruction or other substantial adverse impacts to this vegetation. However, indirect impacts to more dense and contiguous patches of pickleweed adjacent to the access trail could occur as a result of off trail use by recreational visitors. These impacts primarily include trampling, cutting, and/or removal of individual plants or plant populations.

Ground disturbance and construction activities within the project could result in the disturbance and/or destruction of vegetation and wildlife habitat within sensitive natural communities, causing a reduction in the ecological functions and values of these communities. Off-trail use by visitors could result in trampling and degradation of these communities within the project site and associated with the Estero access trail (East Trail), reducing their overall ecological functions and values. Should such direct and indirect impacts occur, they would be considered a substantial effect on sensitive natural communities and, therefore, a **significant impact**.

Mitigation Measures

To avoid/minimize direct and indirect impacts to sensitive natural communities within or adjacent to the proposed trail alignments and associated infrastructure as a result of project implementation, the following measures shall be implemented. Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-12 would avoid/minimize direct and indirect impacts to sensitive natural communities by ensuring that any communities within proposed ground disturbance areas are avoided to the extent possible. By mitigating communities that would be removed/disturbed through the implementation of a compensatory mitigation plan would result in no net loss of community functions and values, and by ensuring that visitors to the site are restricted to the established

trails such that the potentially significant impacts to sensitive natural communities would be reduced to a less-than-significant level.

BIO-12 Arroyo Willow Riparian Habitat, Slough Sedge Sward, Purple Needlegrass, and Pickleweed Communities

1. The proposed trails and bridge crossings shall avoid all mapped riparian vegetation along the two on-site drainages. No ground disturbance activities shall occur within 100 feet of riparian habitat. Drainage crossings shall be elevated such that no riparian vegetation shall be removed or disturbed. Prior to the initiation of ground disturbance activities upslope and within 100 feet of riparian habitat areas, sediment and erosion control measures shall be utilized that can include, but are not limited to, biodegradable straw wattles free from weed seed, silt fencing, hydroseeding, or biodegradable erosion control mats/blankets.
2. If riparian vegetation removal and/or disturbance to the bed, bank, or channel of the central drainage is necessary in order to install the drainage crossing, a Streambed Alteration Agreement (SAA), pursuant to Section 1602 of the California Fish and Game Code, shall be procured from the California Department of Fish and Wildlife (CDFW) prior to any disturbances to these areas. As part of the SAA, compensatory mitigation may be required to offset the loss of riparian habitat. If so, a mitigation plan shall be drafted by a qualified biologist to address implementation and monitoring requirements under the SAA to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, performance criteria, monitoring methods, and actions to be taken in the event that the mitigation is not successful. The plan shall be approved by the County, the District, and CDFW and compensatory mitigation shall take place either on site or at an appropriate off-site location as approved by the CDFW and the County at a ratio directed by the SAA.
3. A pre-construction survey shall be completed prior to the onset of construction to identify and quantify the number of slough sedge swards or purple needlegrass plants along or immediately adjacent to the proposed trail corridors that could be potentially removed or disturbed. If removal or disturbance of any of these plant communities would occur, a qualified botanist shall prepare a propagation and planting plan to offset the loss of any vegetation/plants to be removed or disturbed. The plan shall contain, at a minimum the following components: (a) goals and objectives; (b) a description of the extent of plants/vegetation to be removed or disturbed; (c) plant collection, propagation, and planting methods; (d) locations on the project site in which the plants will be transplanted; (e) monitoring methods, timing, and performance criteria; (f)

measures to be taken in the event that the propagation and planting is not successful; and (g) reporting requirements. The plan shall be approved by the County. Propagation and planting outside of the trail corridor(s) shall occur on a 1:1 basis to ensure no net loss of these sensitive natural communities.

4. The final installation/placement of the Estero access trail (East Trail) shall be determined by the County Regional Parks Department in coordination with a qualified biologist to avoid/minimize the placement of the matting over patches of pickleweed vegetation. Prior to installation, appropriate signage shall be placed at the beginning of the access trail and at appropriate locations along the trail prohibiting off trail use beyond the mudflat areas adjacent to the trail. The signage shall also include information on the sensitivity of pickleweed and marsh habitat areas and their ecological and biological value.
5. Implement Mitigation Measures BIO-1 and BIO-2.

3.4-3: The proposed project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. This is a potentially significant impact.

The following describes the direct and indirect impacts that could potentially occur as a result of construction and/or operation and maintenance of the proposed trail system on federally protected wetlands occurring within the project site. The discussion below also addresses comments received in response to the NOP and prior MND including concerns associated with trail impacts to wetlands.

The project site supports 3.705 acres of wetlands (including swales, seasonal wetlands, and wetland meadows) and 2,971.814 linear feet of other waters, primarily in the form of ephemeral and intermittent drainages, as shown on Figure 3.4-3. These features are anticipated to meet the criteria for jurisdictional waters of the United States based on the jurisdictional delineation conducted on the project site in May and September 2017, on an analysis of the three parameters for wetlands (soils, hydrology, and vegetation), and connectivity/proximity to known waters of the United States in the site vicinity. An additional 1.078 acres of seasonally mesic areas do not meet the three-parameter test for wetlands under the ACOE definition, but do meet one-parameter requirements to be considered a sensitive wetland habitat pursuant to the California Coastal Commission.

The project site does not support Traditional Navigable Waters, interstate waters, or waters that support interstate commerce (33 CFR 328.3(a)(1–4)); therefore, potential ACOE jurisdiction on this classification of waters was determined based on connectivity or adjacency to off-site waters of the United States (CFR 328.3(a)(5)). The Estero is a permanent water tributary to the Pacific Ocean and is thus considered a water of the United States under the jurisdiction of ACOE. Therefore, tributaries to the Estero, including the two on-site intermittent drainages, can

be considered potentially jurisdictional (the ACOE has not yet formally reviewed and certified the 2017 on-site jurisdictional delineation) due to this hydrological connection, and all adjacent wetlands to these drainages within the project site are also potentially jurisdictional.

At least one crossing over the northern portion of the central drainage on the project site is proposed. Any fill or dredging of the drainage, which is assumed to be a jurisdictional waters of the U.S., associated with the installation of the crossing would require prior authorization from the ACOE in the form of permits pursuant to Section 404 of the Clean Water Act. Several foot bridge crossings are also proposed over various swales and ephemeral drainages on the project site. Any fill or removal of these features, if confirmed to be jurisdictional by the ACOE, would also be subject to regulatory permitting by the ACOE. The proposed trail corridors would be constructed outside the Conservation Easement's established 150-foot setbacks on either side of the two on-site intermittent drainages, except in the location of the proposed crossing on the central drainage and a small area south of the barn. No construction, staging areas, or other ground disturbance activities would be allowed within this buffer area. Therefore, no fill, removal, or other adverse impacts, other than the potential for impacts associated with the crossing, are expected to occur to either of the on-site jurisdictional drainages.

The Regional Water Quality Control Board's (RWQCB) jurisdiction corresponds with the wetland and non-wetland waters of the United States as described in the discussion of ACOE jurisdiction above, with the addition of jurisdiction between the OHWM and the top of bank of any watercourses. The intermittent and ephemeral drainages within the site would all fall within the jurisdiction of the RWQCB under Section 401 of the Clean Water Act; therefore, any work below the top of bank of any linear feature within the project site would require authorization from the RWQCB in the form of a Water Quality Certification.

Indirect impacts to the jurisdictional features on the project site include runoff and siltation as a result of construction vehicles and heavy equipment during and immediately after trail construction activities and construction upslope of these features, as well as the potential for disturbance, erosion, and other adverse effects due to the potential for increased off-trail human activities within and adjacent to these areas after the trails are completed.

While the 150-foot protected setback would be incorporated along each side of the two intermittent drainages on the site, construction of the bridge crossing over the northern portion of the central drainage as well as proposed crossings over several of the on-site swales and ephemeral drainages on site could result in fill of ACOE jurisdictional wetlands and waters causing a reduction in the ecological functions and values of these features. Off-trail use by visitors could result in trampling erosion, siltation, and degradation of these resources, reducing their overall ecological functions and values. Should such direct and indirect impacts occur, they would be considered a substantial effect on federally-protected wetlands and waters and, therefore, a **significant impact**.

Mitigation Measures

To avoid/minimize direct and indirect impacts to state or federally protected wetlands within or adjacent to the proposed trail corridors and associated infrastructure as a result of project implementation, the following measures shall be implemented. Implementation of the actions and measures described in Mitigation Measures BIO-1, BIO-2 and BIO-13 would avoid/minimize direct and indirect impacts to wetlands and non-wetland waters of the U.S. by ensuring that any such areas within proposed ground disturbance areas are avoided to the extent possible. By mitigating areas that would be adversely affected through the implementation of a compensatory mitigation plan resulting in no net loss of wetland and waters functions and values, and by ensuring that visitors to the site are restricted to the established trails potentially significant impacts to wetland and non-wetland waters of the U.S. would be reduced to a less-than-significant level.

BIO-13 Wetlands

1. The proposed trails and bridge crossings shall avoid all mapped jurisdictional wetland areas and waters of the U.S. Drainage crossings shall be elevated such that no wetland vegetation shall be removed or disturbed and no removal or fill of jurisdictional areas shall occur. Prior to the initiation of ground disturbance activities upslope and within 100 feet of wetland habitat areas, sediment and erosion control measures shall be utilized that can include, but are not limited to, biodegradable straw wattles free from weed seed, silt fencing, hydroseeding, or biodegradable erosion control mats/blankets.
2. If wetland areas or other waters of the U.S. under the jurisdiction of the ACOE shall be removed or filled in order to install drainage crossings, an individual or Nationwide permit from the ACOE shall be obtained prior to any ground disturbance that could result in fill or removal of wetlands or waters of the U.S. As part of the ACOE permit, compensatory mitigation may be required, at a ratio to be determined by the ACOE, to offset the loss of wetland/waters habitat. If so, and as part of the permit application process, a mitigation and monitoring plan (MMP) shall be drafted by a qualified biologist to address implementation and monitoring requirements under the permit to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, monitoring methods and performance criteria, extent of monitoring to be conducted, actions to be taken in the event that the mitigation is not successful, and reporting requirements. The plan shall be approved by the County, District, and ACOE and compensatory mitigation shall take place either on site or at an appropriate off-site location as approved by the ACOE and the County. Concurrent with the 404 permit,

that County shall also obtain a Water Quality Certification from the RWQCB, subject to the same mitigation plan requirements stated above.

3. Implement Mitigation Measures BIO-1 and BIO-2.

3.4-4: The proposed project could interfere with the movement of 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. This is considered a less-than-significant impact.

As discussed in the Environmental Setting section above, the open and unobstructed habitat on the project site provides some level of connectivity between similar habitats to the north and south (Figure 3.4-4). In particular, the intermittent and seasonal drainages that flow from the uplands in the northern portion of the site to the Estero south of the site are likely used by wildlife species as corridors for both local and regional movement events. However, and as previously discussed, the Conservation Easement's established 150-foot wide setback zone along both sides of the two major north-south drainages on the site and the one proposed bridge crossing across the northern portion of the central creek drainage would span the drainage such that wildlife movement up and down the drainage would not be inhibited. In addition, pursuant to Mitigation Measure BIO-2 above, the design of any fencing along the trails would be such that wildlife movement perpendicular to the fencing would not be adversely inhibited. Therefore, no substantial direct impacts to local or regional wildlife movement is expected to occur as a result of the trails.

While visitor use of the trails may periodically inhibit daytime movement of some wildlife species on the site, most wildlife species in the region tend to be more active at night and would, therefore, not be harassed or inhibited by visitors as the trail system would be closed to visitors at night. Trail construction would occur during daylight hours such that, for the same reason, wildlife movement is not expected to be substantially affected. For those species that are also active, or more active, during daylight hours, the fencing that would be installed along the trails that is intended to keep visitors on trails would also minimize the potential for harassment and disturbance associated with off-trail use that could more directly inhibit wildlife movement and activity during the daytime. Because trail construction would be temporary in nature and generally limited to the proposed corridor and the area immediately adjacent to the trail, disturbance associated with trail construction would not substantially affect daytime wildlife movement.

Construction and ground disturbance associated with the trails would occur at a minimum of 100 feet on either side of the on-site intermittent drainages. Most wildlife movement and activity occurs during the nighttime hours when visitors would not be using the trails; therefore, because trail construction would be temporary in nature; visitors would be restricted to the trails; and fencing along the trails or around sensitive resources would be of a design that does not inhibit

wildlife species movement, impacts to wildlife movement would not be considered a substantial effect. Therefore impacts would be **less than significant**. Potential effects on pallid bat maternity roosts are addressed under Impact 3.4-1, above.

Mitigation Measures

No mitigation measures are required.

3.4-5: The proposed project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This is considered a less-than-significant impact.

The Sonoma County Coastal Plan, Coastal Zoning Ordinance, and Coastal Administrative Manual along with the 2013 General Plan policies encourage the productive maintenance and protection of marine resources and Environmentally Sensitive Habitat Areas (ESHAs). An ESHA is any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments (California Coastal Act 2010, Section 30107.5). Within an ESHA, any significant disruption of (1) CDFG rare plant communities; (2) Federal and State listed species; (3) CNPS 1B listed plant species; (4) habitats that support listed species is prohibited.

Pursuant to Sections 30231 and 30233 of the California Coastal Act, the California Coastal Commission (CCC) requires that most development avoid and buffer wetland resources. Policies require the maintenance and restoration of the biological productivity and quality of wetlands, as well as limit the filling of wetlands. The filling of wetlands is generally limited to high priority uses, and must be avoided unless there “is no feasible less environmentally damaging alternative, and authorized fill must be fully mitigated.”

The Sonoma County General Plan Open Space and Resource Conservation Element provides guidance for the protection of biological resources in Sonoma County as set by its citizens and elected officials. The proposed project is consistent with the protection standards and criteria of this element including overall protection of the following: natural habitats; occurrences of special status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity; riparian corridors and their functions and values while allowing the potential for road crossings over, and trails along, such corridors. The Conservation Easement prohibits the harvesting, cutting, removal, or destruction of native trees on the project site except as necessary to control insects and disease, to prevent personal injury or property damage, or for the purposes of fire management or natural resource management.

Neither the project site nor the portion of the Estero in which the access trail is proposed is within an identified ESHA. In addition, Mitigation Measures BIO-1 through BIO-13 include avoidance or mitigation of direct impacts to special-status plant and wildlife species, sensitive plant communities, federal- and state-protected wetlands, and also avoid and/or minimize the potential for indirect impacts on these resources primarily due of off-trail use by visitors. No known heritage or landmark trees occur on the project site and, in particular, within the areas of proposed ground disturbance associated with parking/staging areas and the trail alignments. No native trees are proposed to be removed in association with the parking or staging areas or in association with the proposed trail alignments.

Because of the relatively low impact associated with construction and operation of the proposed trails and associated staging/parking areas, and with implementation of Mitigation Measures BIO-1 through BIO-13 that avoid and/or minimize the potential for direct and indirect impacts on sensitive biological resources impacts, along with compliance with local policies or ordinances protecting these resources. Potential project conflicts with applicable policies and ordinances would not be considered a substantial effect, and therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographical cumulative context for the evaluation of cumulative impacts on biological resources includes Sonoma County, and more specifically the coastal areas within Sonoma County. Regional development includes buildout of the County's General Plan and other approved development throughout the County.

3.4-6: The proposed project could contribute to the cumulative loss of protected species and/or their habitats within Sonoma County. The project's contribution would not be considerable.

Over the past few decades, tens of thousands of acres of grasslands have been developed or designated for agricultural development in the form of vineyards in Sonoma County. Future development within the County would result in the further decline of native plant communities, wetlands and vernal pool habitat. Increased human presence and traffic within these areas would also contribute to the distribution of non-native plant and wildlife species, which would further degrade the habitat and available niches for native species in the surrounding region.

Coastal development within the County has been minimal in recent years. However, increasing populations in Sonoma County and the Bay Area will contribute to an increase in recreational activities

within coastal areas of the County. Increases in authorized trail uses, as well as potential unauthorized recreational uses beyond trails could contribute to a decline in abundance of special-status wildlife species due to avoidance of heavily populated areas. Construction and implementation of the proposed project would potentially contribute to increased use of the coastal areas within Sonoma County, and several special-status plant and wildlife species are present or could potentially be present within the site. However, mitigation requiring pre-construction surveys for special-status plants and animals and avoidance of these resources during construction activities, avoidance of sensitive habitats and required mitigation if such habitats cannot be avoided, buffers between sensitive biological resources and construction areas, fencing to restrict visitors to designated paths, a requirement for creation or preservation of wetland resources that cannot be avoided within the site, and a required environmental awareness program for all workers conducting ground disturbance activities associated with construction of the trail alignments would reduce the project's contribution to loss of biological diversity and special status resources within the project region. Therefore, the project's contribution to this cumulative impact is not considerable resulting in a less-than- significant cumulative impact.

Mitigation Measures

No mitigation measures are required.

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3.5 Cultural and Tribal Cultural Resources

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential cultural and tribal cultural resource impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Trail Amenities project (proposed project). Analysis of the proposed project is based on review of the Cultural Resources Inventory Report prepared by Dudek in August 2018 (see Appendix D). This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

No comments were received that raised concerns regarding cultural or tribal cultural resources in response to the Notice of Preparation (NOP). In response to the prior Mitigated Negative Declaration released in October 2016, the California Department of Transportation (Caltrans) recommended conducting Native American consultation with tribes, groups, and individuals interested in the project area. The County has conducted outreach to the local Native American tribes consistent with Assembly Bill (AB) 52. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

Cultural Context

Fredrickson (1974, 1994) developed a prehistoric chronology for human history in this region that used sociopolitical complexity, trade networks, population, and the introduction and variation of artifact types to differentiate between cultural groups. Three periods are presented in Fredrickson's prehistoric sequence: Paleoindian, Archaic, and Emergent. Fredrickson's Paleoindian period marked the initial human migration (10,000–6,000 BC) into California with most known sites found on the edge of former lakeshores and waterways. Groups were small and highly mobile, occupying broad geographic areas.

Fredrickson's Archaic period was characterized by three subdivisions based on developmental trends in subsistence strategies, settlement, technology, and social organization. A more diverse range of resources for groups to exploit proliferated during the Archaic period's substantial climate change to warmer and drier conditions. The diversification of the food base required more complex geographic mobility and expansion into surrounding environments, and

the settlement strategies increased correspondingly. Archaic period social organization consisted of small-scale, semi-nomadic, socially egalitarian societies shifting from a foraging to a collecting way of life. Archaic cultures retained the use of large projectile points, but acorn and seed processing technology, consisting of the milling slab and handstone, was developed; this was eventually replaced by the bowl mortar and pestle. Trade systems and sustained exchanges between groups grew from the new diffuse economies. Shell beads gained significance as trade items.

In the Emergent period (Fredrickson 1974, 1994), which lasted from the end of the Upper Archaic (ca. AD 1000) until European contact, there was an increase in the use of plant food resources in addition to an increase in terrestrial and fish game. There was a concurrent increase in the diversity and complexity of material culture during the Emergent period, as demonstrated by more classes of artifacts, higher frequencies of artifacts, and more formal or ornate artifacts. The recovery of a greater number of small, finely chipped projectile points, often stemless with convex or concave bases, suggests an increased usage of the bow and arrow rather than the atlatl (spear throwing technology) and dart for hunting. During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages.

The project area was occupied during the Ethnohistoric period and prior to European contact by the Coast Miwok (Milliken 2009). The Coast Miwok territory went northward to Duncan's Point on the coast eastward to between the Sonoma and Napa Rivers, and south to approximately Sausalito. Ethnographers infer that accounts from two sixteenth-century voyages, Drake in 1579 and Sebastian Rodriguez Cermeño in 1595, were the first European contacts with what was contemporary Coast Miwok culture (Kroeber 1925). It wasn't until the latter part of the eighteenth century, with the founding of the mission at San Francisco in 1776, and later, the missions at San Rafael (1817) and Solano-Sonoma (1823), that Europeans colonized Coast Miwok territory with forced evangelization (Kelly 1978).

Miwok was one of the California Penutian languages (Kroeber 1925). Coast Miwok had a considerable territory, though it has been suggested that the population may have been relatively small, totaling 2,000 individuals (Kroeber 1925). Coast Miwok terrain was diverse with marshlands, valleys, forests, and coast all contributing to an environmental setting well suited to an economy based on fishing, hunting, and gathering. Villages were predominantly found adjacent to shores; however, summers were spent hunting and gathering in the hills. Food sources were seasonal; during times of shortage in winter and spring, dried acorns, seeds, and kelp were the mainstay; in other months, salmon, mudhens, geese, fish, deer, crab, and other small and large mammals and marine animals were available. Men indulged in tobacco, and datura was also consumed. Basketry techniques included both coiled and twined forms, often with the use of multicolored motifs and patterns. Coast Miwok had grass-covered conical dwellings that contained a central hearth and accommodated 6 to 10 persons. Large villages

had sizable semi-subterranean circular sweathouses and, if the population size warranted, a dance house. There was no overall tribal organization; each Coast Miwok village had a chief and two female leaders. Clamshell disk beads were used as currency to trade with Wappo country, South Pomo territory, Santa Rosa, and Healdsburg.

Missionaries had detrimental effects on well-established cultural network of Coast Miwok communities throughout the region. By the time of California's initial integration into the United States in the 1840s, the Coast Miwok population was reportedly reduced from approximately 2,000 individuals to one-eighth of its size before European contact (Kelly 1978). Coast Miwok individuals entered both urban centers and throughout the region, often employed locally as farmhands. In 1920, the Bureau of Indian Affairs bought a 15-acre tract near Graton, providing the tribal reservation for the Miwok and neighboring groups now listed by the Native American Heritage Commission as the Federated Indians of Graton Rancheria.

Following the initial reported discovery by Sir Francis Drake, Sebastian Rodriguez Cermeno anchored off the Coast of Marin County in 1595. Cermeno, a Portuguese explorer sailing for Spain, wrecked his ship, the *San Augustin*, at Drakes Bay during this same journey. During the period of time in which a new vessel was being prepared, he and a support crew took part in limited exploration of the Marin County area (Heizer 1941). Sebastian Vizcaino later anchored in Drake's Bay in 1603 (Chapman, 1920). Spanish missionization of Alta California was initiated in San Diego (1769). A total of 21 missions were constructed by the Dominican and Franciscan orders between 1769 and 1823. Missions in the region included San Francisco de Asís (1776), Santa Clara de Asís (1776), San José de Guadalupe (1797 in Alameda County), San Rafael Arcángel (1817 in Marin County), and San Francisco Solano (1823 in Sonoma County; Grunsky 1989).

Mexico's separation from the Spanish empire in 1821 and the secularization of the California missions in the 1830s caused further disruptions to native populations. Following the establishment of the Mexican republic, the government seized many of the lands belonging to Native Americans, providing them as parts of larger Land Grants to affluent Mexican citizens and rancheros. The 1833 Secularization Act passed by the Mexican Congress ordered half of all mission lands to be transferred to Native Americans, and the other half to remain in trust and managed by an appointed administrator. These orders were never implemented due to several factors that conspired to prevent Native Americans from regaining their patrimony.

California was officially ceded to the United States in 1848, which led to the continued appropriation of Native American Lands by ranchers, prospectors, and an increasing number of settlers. The United States Government did little to dissuade these trespasses. From 1850, with the passage of California's Indian Act, until legislative reforms in the late 1880s, state laws promoted conditions that amounted to indentured servitude for much of the Native American population throughout California. The Gold Rush resulted in an increase in population and

industry, and saw mills were constructed and operated to process local Redwood. Cattle ranching, fisheries, and dairies sparked the eventual arrival of the North Pacific Railroad. By the late 1850s many of the prominent towns now present were fully established (Koenig 2009).

Existing Site

The project site is located immediately to the south of State Route 1 (SR 1), approximately one-mile south of the community of Bodega, and approximately 2.5-miles west of the community of Valley Ford, at 17000 Valley Ford Cutoff in unincorporated Sonoma County, California (see Figure 2-1, Regional Location in Chapter 2, Project Description). The project site is undeveloped and is dominated by annual grassland habitat within the approximately 500-acre Bordessa Ranch property that currently is and historically has been used for grazing. A large barn and some smaller outbuildings associated with the ranch are located on the project site, but there are no residences present on the site, however under the Conservation Easement, the landowners retain the right to construct one residence. The topography of the Bordessa Ranch property consists of rolling hills with a central valley created by a drainage that drains into the Estero at the southern end of the site. Riparian and marsh vegetation dominate larger drainages with several smaller drainages, seasonal wetlands, wet meadows, and small ponds present within the property. A gravel/dirt road with access from SR 1 runs north to south through the center of the property ending at the barn. On-site elevations range from sea level at the Estero Americano (Estero) to about 400 feet at the highest knoll on the northwestern corner of the property.

Records Search

The Cultural Resources Inventory Report (Appendix D) prepared for the proposed project included a California Historical Resources Information System (CHRIS) records search, which was conducted at the Northwest Information Center (NWIC) on October 25, 2017, for the proposed project site and surrounding 0.5-mile radius. The NWIC records indicate that four cultural resource investigations have been conducted within the 0.5-mile search radius of the proposed project site, of which one study entirely overlaps the project site (see Appendix D). These studies are listed in Table 3.5-1, below.

**Table 3.5-1
Previous Technical Studies within a Half-Mile Radius of the Project Site**

Report ID	Author	Year	Title	Relative to APE*
S-009573	Marcia K. Kelly and Margaret L. Buss	1987	Negative Archaeological Survey Report, proposed replacement or realignment of 54 culverts, 04-SON-1 P.M. 2.14/54.56, 04-MRN-1 P.M. 13.82/48.32, 4232-120390.	Within a half-mile
S-018458	Jonathan Legare	1996	A Cultural Resources Study of the Griffin Property, Bodega, Sonoma County, California.	Within a half-mile

Table 3.5-1
Previous Technical Studies within a Half-Mile Radius of the Project Site

Report ID	Author	Year	Title	Relative to APE*
S-035051	Nelson B. Thompson	2008	Review of Cultural Resources Surveys Conducted of the 04-SON-01 Right of Way in Sonoma County For Maintenance Planning by Caltrans District 04 and Anthropological Studies Center, SSU Personnel Between 1997 and 2001 (PM 0.0/58.53) (letter report).	Within a half-mile
S-045445	Eileen Barrow and Tom Origer	2014	A Cultural Resources Survey of a Portion of the Bordessa Ranch, 17000 Highway 1, Valley Ford, Sonoma County, California.	Included entire APE

Source: Appendix D

Note:

* Area of Potential Effect.

The most recent investigation, which included the entire APE, was completed by Eileen Barrow of Tom Origer and Associates in 2014. The investigation was requested and authorized by Karen Davis-Brown of Sonoma County Regional Parks. Work included an intensive-level pedestrian survey of the APE, applying 15-meter transects in areas with the highest potential for cultural resources and 30-meter transects in areas where more extreme topography was present. The study resulted in the identification of one prehistoric obsidian flake. No archaeological features, deposits, or sites were observed. Review of photographs of the structures on the property by architectural historian Vikki R. Beard resulted in the observation that the barn/residence, while greater than 45 years in age, did not appear to meet eligibility criteria for inclusion on the CRHR or NRHP. Based on these findings, investigators recommended no additional cultural resources investigation or monitoring to be necessary.

Pedestrian Survey

An intensive pedestrian survey was conducted by a Dudek archaeologist on June 19, 2018. During the survey, all areas of the proposed 50-foot-wide trail corridors were inspected. No archaeological or historic-era built-environment artifacts or features were identified as a result of this investigation. Approximately one-fifth of the ground surface was directly visible due to the presence of grasses that characterizes a majority of the project site. Subsurface exposures were thoroughly inspected along the banks of drainages intersecting the proposed trail corridors at a number of locations. The historic-age barn, located approximately 80-feet outside of the project boundary, was observed to be present as reported by previous cultural resources investigations. With the exception of limited movement of surface soils caused by cattle grazing, the project site remains largely undisturbed. While no archaeological resources were observed, portions of the project site do intersect depositional environments such as low-slope drainages, terraces, and knolls suitable to support the presence of cultural deposits.

Tribal Consultation

On October 13, 2017, a sacred lands file search request and a request for the Native American contact list for the area was sent to the Native American Heritage Commission (NAHC). On October 25, 2017 the NAHC responded with results from the sacred lands file search request. The sacred lands search failed to indicate the presence of Native American cultural resources on the project site or in the vicinity. The NAHC additionally provided a list of Native American tribes and individuals/organizations that might have knowledge of cultural resources in this area.

The County sent letters to all Native American tribes that have requested notification, per Assembly Bill (AB) 52. The County reports that to-date, it has not received any information from consulted tribes identifying any tribal cultural resources or cultural resources that may be affected by the project, or a request for consultation. Consultation is considered closed.

Regulatory Setting

The treatment of cultural resources is governed by federal, state, and local laws and guidelines. There are specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. Federal and state significance criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some resources that do not meet federal significance criteria may be considered significant by state criteria. The laws and regulations seek to mitigate impacts on significant prehistoric or historic resources. The federal, state, and local laws and guidelines for protecting historic resources are summarized below.

Federal Regulations

Historical Resources

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) as the official federal list of cultural resources that have been nominated by state offices for their historical significance at the local, state, or national level. Properties listed in the NRHP, or determined eligible for listing, must meet certain criteria for historical significance and possess integrity of form, location, and setting. Under Section 106 of the act and its implementing regulations, federal agencies are required to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or that are listed in the NRHP. The regulations in 36 CFR 60.4 describe the criteria to evaluate cultural

resources for inclusion in the NRHP. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and they:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;
- C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

These factors are known as “Criteria A, B, C, and D.”

In addition, the resource must be at least 50 years old, except in exceptional circumstances. Eligible properties must meet at least one of the criteria and exhibit integrity, which is measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of the changes to the property. Archaeological sites are generally evaluated under Criterion D, which concerns the potential to yield information important in prehistory or history.

The Section 106 review process is typically undertaken between the U.S. Army Corps of Engineers as part of issuing a Section 404 permit and the State Historic Preservation Officer, involves a four-step procedure:

- Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).
- Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation, if necessary, to develop an agreement that addresses the treatment of historic properties.

The Department of the Interior has set forth Standards and Guidelines for Archaeology and Historic Preservation. These standards and guidelines are not regulatory and do not set or interpret agency policy. A project that follows the standards and guidelines generally shall be considered mitigated to a less-than-significant level, according to Section 15064.5(b)(3) of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.).

State Regulations

Historical and Archaeological Resources and Human Remains

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to California Public Resources Code (PRC) Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” PRC 21083.2 requires agencies to determine whether proposed projects would have effects on “unique archaeological resources.”

“Historical resource” is a term of art with a defined statutory meaning (see PRC 21084.1 and CEQA Guidelines, Sections 15064.5(a) and 15064.5(b)). The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be “historical resources” for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC 5024.1 and 14 CCR 4850). Unless a resource listed in a survey has been demolished or has lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource potentially eligible for the CRHR. The project would not remove, modify, or otherwise affect any existing buildings, nor would it introduce elements that would change the historic setting of the ranch.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project’s impacts to historical resources (PRC 21084.1 and CEQA Guidelines, Section 15064.5(a)(3)). In general, a historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

Is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and

A. Meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history (CEQA Guidelines, Section 15064.5(a)(3)).

These factors are known as “Criteria 1, 2, 3, and 4” and parallel Criteria A, B, C, and D under the National Historic Preservation Act. The fact that a resource is not listed or determined to be eligible for listing does not preclude a lead agency from determining that it may be a historical resource (PRC 21084.1 and CEQA Guidelines, Section 15064.5(a)(4)).

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described above, and “unique archaeological resources.” Under CEQA, an archaeological resource is considered “unique” if it:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC 21083.2(g)).

CEQA states that if a proposed project would result in an impact that might cause a substantial adverse change in the significance of a historical resource, then an EIR must be prepared and mitigation measures and alternatives must be considered. A “substantial adverse change” in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)).

The CEQA Guidelines (Section 15064.5(c)) also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological resource. If the site meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC 21083.2.

CEQA Guidelines section 15126.4(b) sets forth principles relevant to means of mitigating impacts on historical resources. It provides as follows:

- (1) Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.
- (2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.
- (3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:
 - (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
 - (B) Preservation in place may be accomplished by, but is not limited to, the following:
 1. Planning construction to avoid archaeological sites;
 2. Incorporation of sites within parks, greenspace, or other open space;
 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
 4. Deeding the site into a permanent conservation easement.
 - (C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must

be removed during project excavation or testing, curation may be an appropriate mitigation.

- (D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.

CEQA and the California Public Records Act restrict the amount of information regarding cultural resources that can be disclosed in an EIR in order to avoid the possibility that such resources could be subject to vandalism or other damage (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 219). The State CEQA Guidelines prohibit an EIR from including “information about the location of archaeological sites and sacred lands, or any other information that is subject to the disclosure restrictions of Section 6254 of the Government Code [(part of the California Public Records Act)].” (State CEQA Guidelines, § 15120, subd. (d)). In turn, California Government Code section 2654 of the California Public Records Act lists as exempt from public disclosure any records “of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in Sections 5097.9 and 5097.933 of the [California] Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency.” (Cal. Gov. Code, § 6254, subd. (r)).

Public Resources Code sections 5097.9 and 5097.993 list the Native American places, features, and objects, the records of which are not to be publically disclosed under the California Public Records Act: “any Native American sanctified cemetery, places of worship, religious or ceremonial site, or sacred shrine located on public property (§ 5097.9) and any “Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources..., including any historic or prehistoric ruins, any burial ground, any archaeological or historic site, any inscriptions made by Native Americans at such a site, any archaeological or historic Native American rock art, or any archaeological or historic feature of a Native American historic, cultural, or sacred site ...” (§5097.993, subd. (a)(1)).

The Public Resources Act also generally prohibits disclosure of archaeological records. Government Code section 6254.10 provides: “Nothing in [the California Public Records Act] requires disclosure of records that relate to archaeological site information and reports maintained by, or in the possession of ... a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency.”

CEQA Guidelines, Section 15064.5(e), require that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified in a timely manner by the Native American Heritage Commission. Section 15064.5 of the CEQA Guidelines directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Senate Bill 297

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains (SB 297). It has been incorporated into Section 15064.5(e) of the CEQA Guidelines.

Assembly Bill 52

Assembly Bill (AB) 52 requires consultation with Native American tribes traditionally and culturally affiliated with the geographic area in which a project requiring CEQA review is proposed if those tribes have requested to be informed of such proposed projects. The intention of such consultation is to avoid adverse impacts to tribal cultural resources. This law is in addition to existing legislature protecting archaeological resources associated with California Native American tribes. AB 52 applies to all projects initiating environmental review in or after July 2015. As discussed previously, the County conducted tribal outreach consistent with AB 52 and received no responses from the Tribes contacted.

California Health and Safety Code

Section 7050.5(b) of the California Health and Safety Code specifies protocols to address any human remains that may be discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government

Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

Public Resources Code Section 5097.5

Section 5097.5 of the California Public Code Section protects historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological sites, or any other archaeological, paleontological, or historical feature that is situated on land owned by, or in the jurisdiction of, the State of California, or any city, county, district, authority, or public corporation, or any agency thereof.

Local Regulations

The following local/regional regulations pertaining to cultural resources would apply to the proposed project.

Sonoma County General Plan 2020

The Open Space and Resource Conservation Element of the Sonoma County General Plan 2020 (Sonoma County 2016) provide objectives, policies, and programs regarding cultural resources, including the following:

Open Space and Resource Conservation Element

Goal OSRC-19: Protect and preserve significant archaeological and historical sites that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. Preserve unique or historically significant heritage or landmark trees.

Objective OSRC-19.5: Encourage the identification, preservation, and protection of Native American cultural resources, sacred sites, places, features, and objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites. Ensure appropriate treatment of Native American and other human remains discovered during a project.

Objective OSRC-19.6: Develop and employ procedures to protect the confidentiality and prevent inappropriate public exposure of sensitive archaeological resources and Native American cultural resources, sacred sites, places, features, or objects.

Policy OSRC-19k: Refer applications for discretionary permits to the Northwest Information Center to determine if the project site might contain archaeological or historical resources. If a site is likely to have these resources, require a field survey and preparation of an archaeological report containing the results of the survey and include mitigation measures if needed.

Policy OSRC-19l: If a project site is determined to contain Native American cultural resources, such as sacred sites, places, features, or objects, including historic or prehistoric ruins, burial grounds, cemeteries, and ceremonial sites, notify and offer to consult with the tribe or tribes that have been identified as having cultural ties and affiliation with that geographic area.

Impacts

Methods of Analysis

As described above, a Cultural Resources Inventory Report was prepared for the Bordessa Ranch property in August 2018 (see Appendix D). The inventory included a review of the CHRIS records search provided by the NWIC, NAHC sacred lands file search, Native American coordination, historic research, and an intensive pedestrian survey of the site. The study also reviewed historical aerials (available since 1952) and topographic maps (available since 1935). The CHRIS records search included a review of their collection of mapped prehistoric, historical and built-environment resources, Department of Parks and Recreation (DPR) Site Records, technical reports, archival resources, and ethnographic references. Additional consulted sources included the National Register of Historic Places (NRHP), California Inventory of Historical Resources/CRHR and listed OHP Archaeological Determinations of Eligibility, California Points of Historical Interest, California Historical Landmarks, and Caltrans Bridge Survey information.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural

landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Significance Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable and therefore, are not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

The background literature and document search identified no previously recorded historic building resources within or in the immediate vicinity of the project site. Although the existing barn on the Bordessa Ranch property is greater than 45 years in age, it would be located outside of the proposed project APE. No buildings, including this barn, would be affected by the project. Therefore, the project would have no impact related to historical building resources and this issue is not further addressed.

Project Impacts and Mitigation Measures

3.5-1: Implementation of the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. This impact is potentially significant.

The records search prepared for the project site and the pedestrian survey found no evidence of archaeological resources on the project site or in immediate vicinity. One unmapped prehistoric obsidian flake was identified during a previous archaeological survey (Origer and Barrow 2014); however, this resource was not identified in the survey conducted for the proposed project, and can be assumed to be outside the proposed project footprint or area of disturbance. The proposed trails and staging/parking area construction would be relatively limited in its level of disturbance and would not require any below-ground excavation. Work would include grading the access road and the two parking/staging areas to apply a gravel base. The trails would be constructed either by hand or using small equipment to grade and level a pathway and to install small wooden foot bridges. As described previously, portions of the project site intersect depositional environments such as low-slope drainages, terraces, and knolls suitable to support the presence of cultural deposits.

While no archaeological resources were identified during the records search or pedestrian survey, it is always possible to inadvertently uncover additional cultural resources during ground disturbing activities. An inadvertent archaeological discovery would be considered **potentially significant**.

Mitigation Measures

Implementation of Mitigation Measure CUL-1 would reduce impacts to archaeological resources to a less-than-significant level by requiring project work to stop in the vicinity of the resource and appropriate measures to be implemented to evaluate the significance of the find.

CUL-1 Discovery of Archaeological Resources. All construction crews shall be alerted to the potential to encounter archaeological material. This may be implemented through a pre-construction meeting attended by a qualified archaeologist, as part of a Worker Environmental Awareness Program (WEAP), and/or providing appropriate cultural resources training handouts to personnel prior to initiating work. In the event that cultural resources (sites, features, artifacts, or fossilized material) are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. Prior to any potentially destructive evaluation efforts such as excavation, the feasibility of resource avoidance should be first considered and discussed with the County. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

3.5-2: Implementation of the proposed project could disturb human remains, including those interred outside of formal cemeteries. This impact is considered less than significant.

No previously identified human remains were identified during the records search or Native American consultation. The pedestrian survey also found no indication of human remains. Nevertheless, it is possible to inadvertently uncover human remains during ground disturbing project activity, such as grading. If human remains or human bones are unearthed during construction activities the county and/or their contractor is required to comply with Section 5097.98 of the California Public Resources Code and Section 7050.5 of the California Health and Safety Code, as well as California Environmental Quality Act Guidelines Section 15064.5(e), which all required that in the event of the discovery of human remains, work shall be suspended within 100 feet of the find, and the Sonoma County Coroner shall be immediately notified and no further excavation or disturbance of the site can occur until the county coroner

has determined the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American consistent with Section 5097.98, the NAHC would immediately notify those persons it believes to be the most likely descendant from the deceased Native American. Compliance with existing laws would ensure if there is an inadvertent discovery of human remains or human bone the impact would be reduced to **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.5-3: Implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, or a resource determined by the lead agency to be significant. This impact is considered potentially significant.

Dudek contacted the NAHC to request a review of the SLF. The NAHC responded to Dudek's request, stating that the SLF search was conducted with "negative results." The County sent letters to all California Native American tribes traditionally and culturally affiliated with the project area requesting notification pursuant to AB 52. None of the tribes contacted requested consultation pursuant to Public Resources Code Section 21080.3.1.

Based on a review of the Cultural Resources evaluation conducted for the project site there are no known tribal cultural resources present, as defined in Public Resources Code Section 21074, on the project site or in its immediate vicinity. The Bordessa Ranch property has historically been used for cattle grazing operations and is largely undeveloped. The CHRIS records search conducted for the project area did not identify any previously recorded tribal cultural resources on the project site (Appendix D).

As previously stated, no archaeological sites were found on the project site or in the immediate vicinity during the records search or the intensive pedestrian survey conducted for the project site. Furthermore, no resource that is significant according to Public Resources Code Section 5024.1 was identified on the project site through archival research or visual historical inventory.

Despite this, the potential for unknown tribal cultural resources to be encountered during project ground-disturbing activities still exists. This is considered a **potentially significant impact**.

Mitigation Measures

While no tribal cultural resources have been identified that may be affected by the project, the following approach for the inadvertent discovery of TCRs has been prepared to ensure there are

no impacts to unanticipated resources. Implementation of Mitigation Measure CUL-2 would require project work to stop if any TCRs are unearthed and appropriate measures to be implemented to evaluate the significance of the find. This would ensure potential impacts would be less than significant.

CUL-2 Tribal Cultural Resources. Should a potential tribal cultural resource (TCR) be inadvertently encountered, construction activities near the encounter shall be temporarily halted and the County notified. The County shall notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in mitigation measure CUL-1. If the County determines that the potential resource appears to be a TCR, any affected tribe shall be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered tribal cultural resources. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations shall be made based on the determination of the County that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements.

Cumulative Impacts

This cumulative impact analysis relies on buildout of the County's 2020 General Plan and does not use a list of specific pending or reasonably foreseeable development proposals in the general vicinity of the proposed project.

The geographic scope or cumulative context for the evaluation of potential cumulative impacts on cultural resources is Sonoma County. While the project-specific impact analysis for cultural resources necessarily includes separate analyses for prehistoric resources, historic-period resources, tribal cultural resources, and human remains, the cumulative analysis combines these resources into a single, non-renewable resource base and considers the additive effect of project-specific impacts to significant regional impacts on cultural resources.

3.5-5: The proposed project could contribute to cumulative losses of prehistoric and historic-period resources, human remains, and tribal cultural resources within Sonoma County. This is a potentially considerable contribution to an existing cumulative impact.

The Sonoma County General Plan EIR identified that development under the County's General Plan could result in significant impacts to historic, archaeological, and human remains. The

General Plan EIR determined that impacts resulting from disturbance of subsurface archaeological and human remains would be significant and unavoidable. Although policies set forth in the General Plan would reduce impacts to cultural resources, development within the County could still result in cumulative impacts to cultural resources because some land uses and development are not subject to County review and mitigation (Sonoma County 2006).

Numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect cultural resources. These would apply to development within and outside the county. In addition, the County's 2020 General Plan provides local policies that safeguard cultural resources from unnecessary impacts. These policies include Policy OSRC-19k, which requires that applications for discretionary permits are referred to the Northwest Information Center to determine if the project site may contain archaeological or historical resources and an archaeological survey and mitigation measures if the site is determined to have potential for cultural resources, and Policy OSRC-19l, which requires that tribes with cultural affiliation to the geographic area be notified and consulted if Native American cultural resources are found on a project site. Because all significant cultural resources and human remains are unique and non-renewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Although unlikely, there is the potential the proposed project could adversely affect significant cultural resources that are unique and non-renewable members of finite classes if discovered contributing to a potentially considerable contribution. Therefore, the project's incremental contribution to the cumulative loss of cultural resources is considered **potentially significant**.

Mitigation Measures

Implementation of Mitigation Measures CUL-1 and CUL-2 provide specific procedures to follow in the event a resource is identified. The procedures require work to stop in the event a resource is discovered and an archaeologist and/or Native American representative contacted to determine the appropriate course of action depending on the resource. Compliance with this measure, along with Section 5097.98 of the California Public Resources Code, Section 7050.5 of the California Health and Safety Code, and Section 15064.5(e) of the CEQA Guidelines, would ensure that potential impacts to previously unidentified subsurface resources are mitigated to a less-than-significant level and the project's incremental contribution would be reduced to less than significant.

CUL-3 Implement Mitigation Measures CUL-1 and CUL-2.

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3.6 Geology and Soils

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential impacts to geology and soils of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

No comments were received that raised concerns regarding geology and soils in response to the Notice of Preparation (NOP) or on the prior Mitigated Negative Declaration prepared for the project in October 2016. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

The project site is located in the northwestern portion of the Coast Ranges Geomorphic Province. The Coast Ranges span from northern to southern California along the state's coastline, subparallel to the active San Andreas Fault. Low mountain ranges and associated valleys characterize the Coast Ranges, and elevations typically range between 2,000 and 4,000 feet above sea level. The Coast Ranges primarily consist of thick late Mesozoic and Cenozoic sedimentary rocks. In some areas, the topography of the Coast Ranges is subject to the irregular, knobby outcrops of the landslide-prone rocks of the Franciscan Complex (CGS 2002).

Topography

Elevations within the project site range from sea level at the Estero American (Estero) to about 400 feet at the highest knoll on the northwestern corner of the site. The topography is characterized as rolling hills with a central valley created by a drainage that drains into the Estero at the southern end of the site.

Geology

The geologic units present on site—from youngest to oldest—are (CGS 2008):

- ***Alluvial Fan and Fluvial Deposits (Qal)***: This is a Holocene-age geologic unit mapped along downstream ends of the stream channels and along Estero Americano. It consists

of medium to dark gray, dense, sandy to silty clay. Lenses of coarser material (silt, sand, and pebbles) may be locally present.

- **Wilson Grove Formation (Twg):** This is a late Pliocene to late Miocene geologic unit mapped on most of the elevated and flatter portions of the site. It consists of mostly massive or thick-bedded, buff weathering, light-gray, fine-grained quartz-lithic arenite. It also locally includes beds of mollusk- and gastropodshell hash, pebble to boulder conglomerate, and tuff. Fossils from the Wilson Grove Formation range in age from late Miocene to late Pliocene.
- **Graywacke and mélange (KJfs):** This is a Cretaceous- to Jurassic-age unit mapped in a narrow band along the steeper hillslopes descending toward Estero Americano. It consists of massive to distinctly bedded, brown-, orange-, and white-weathering, green to gray, lithic wacke and dark-gray or black siltstone, shale, and slate, grading into mélange consisting of sheared argillite and greywacke matrix enclosing blocks and lenses of sedimentary, metamorphic, and volcanic rocks.

Soils

Overlying the geologic units described above (aside from rock outcrops and portions of active floodplains) is a mantle of soil that varies in thickness and character. In general, soil characteristics are strongly governed by slope, relief, climate, vegetation, and the geologic unit upon which they form. Soil types are important in describing engineering constraints such as erosion and runoff potential, corrosion risks, and various behaviors that affect structures, such as expansion and settlement.

Expansive soils increase in volume when they absorb water and shrink when they dry out. Expansion often occurs in soils that have clay minerals, primarily montmorillonite and illite (a non-expanding clay mineral). Damage from expansive soils can impact roadways, pavements, and other flat construction.

Table 3.6-1 lists the soil units mapped on the proposed project site, and their key physical characteristics. The soil map units on site are generally comprised of sandy loams, loams, and clayey loams with erosion and runoff characteristics that are neither very rapid nor very slow. Absorption of water and runoff is moderate or slow. Slopes of the soil map units range from near 0 to 50%.

**Table 3.6-1
Soil Types Underlying the Project Site**

Soil Type	Association	Shrink/ Swell Potential ^a	Erosion Hazard ^b	Runoff Potential ^c	Hydro Group ^d
Blucher fine sandy loam, overwash, 0 to 2 percent slopes	Pajaro Association	M	S	S	C

**Table 3.6-1
Soil Types Underlying the Project Site**

Soil Type	Association	Shrink/ Swell Potential ^a	Erosion Hazard ^b	Runoff Potential ^c	Hydro Group ^d
Kneeland sandy loam, sandy variant, 2 to 15 percent slopes	Kneeland-Rohnerville-Kinman Association	M	M	M	C
Kneeland rocky sandy loam, sandy variant, 9 to 30 percent slopes	Kneeland-Rohnerville-Kinman Association	M	M,H	R,M	C
Los Osos clay loam, thin solum, 30 to 50 percent slopes	Steinbeck-Los Osos Association	H,M	H	R	C
Steinbeck loam, 2 to 9 percent slopes	Steinbeck-Los Osos Association	M	M,S	M,S	B
Steinbeck loam, 9 to 15 percent slopes	Steinbeck-Los Osos Association	M	M	M	B
Steinbeck loam, 9 to 15 percent slopes, eroded	Steinbeck-Los Osos Association	M	M	M	B
Steinbeck loam, 15 to 30 percent slopes, eroded	Steinbeck-Los Osos Association	M	M	M	B
Steinbeck loam, 30 to 50 percent slopes, eroded	Steinbeck-Los Osos Association	M	H	R	B

Notes:

^a H = High, M=Moderate, L=Low

^b VH= Very High, H=High, M=Moderate, S=Slight

^c VR= Very Rapid, R=Rapid, M=Moderate, S=Slight

^d A=Absorbs water rapidly, low runoff potential, B= Absorbs water moderately; moderate runoff potential,

C= Absorbs water slowly; moderate runoff potential, D= Absorbs water very slowly; high runoff potential

Source: USDA 2017, Sonoma County 2006, USDA 1972.

Faults and Seismicity

Sonoma County is located at the active plate margin between the North American Plate and Pacific Plate, which is defined by the San Andreas Fault system. The San Andreas Fault system is a zone of active, dormant, and inactive faults surrounding and including the San Andreas Fault, which occurs along most of the western boundary of California. The San Andreas Fault is the only fault within the County with known surface displacement during historic times (Sonoma County 2006). In 1906, a magnitude 8.3 earthquake occurred along this fault and resulted in an average 15 feet horizontal displacement and fault rupture throughout Sonoma County from the

Gualala area to the Bodega Bay area. In addition, the Healdsburg, Rodgers Creek, and Mayacamas faults have had surface displacement within the past 11,000 years and are considered active faults (Sonoma County 2006). The County's General Plan considers the San Andreas and Rodgers Creek faults the two most important faults within Sonoma County for planning purposes (Sonoma County 2014a).

Figure PS-1b of the Sonoma County General Plan 2020 depicts major fault hazard zones within the County. The project site is not located within a major fault hazard zone (Sonoma County 2014a, Figure PS-1b).

Fault Rupture

The Alquist Priolo (AP) Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the state geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults and published maps showing these zones. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. A review of the AP Earthquake Fault maps shows that the project site is not located within an AP fault zone (DOC 1974). The closest edge of an AP fault zone is an on-shore strand of the San Andreas Fault Zone, located approximately just over 1 mile to the southwest of the site (DOC 1972).

Seismic Ground Shaking

The primary tool that seismologists use to evaluate ground shaking hazard and characterize statewide earthquake risks is a probabilistic seismic hazard assessment (PSHA). The PSHA for the State of California takes into consideration the range of possible earthquake sources and estimates their characteristic magnitudes to generate a probability map for ground shaking. The PSHA maps depict values of peak ground acceleration (PGA) that have a 10% probability of being exceeded in 50 years (or a 1 in 475 chance). This probability level allows engineers to design structures for ground motions that have a 90% chance of not occurring in the next 50 years, making structures safer than if they were simply designed for the most likely events. Although the project proposes no habitable structures, the PGA still provides a useful estimate of ground shaking that can be reasonably expected to occur on the project site.

Based on the California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion Page, there is a 10% probability of earthquake ground motion exceeding 0.48 g at the project site over a 50-year period (DOC 2008). According to the County's General Plan Environmental Impact Report (EIR), the County has a 70% probability of experiencing ground shaking from at least one major earthquake (magnitude 6.7 or greater) by 2030 (Sonoma County 2006). Bay and valley margin areas are most susceptible to ground shaking from earthquakes (Sonoma County 2006).

Figure PS-1a of the Sonoma County General Plan 2020 depicts areas within the County that are subject to strong, very strong, or violent ground shaking hazards based on the projected relative intensity of ground shaking and damage during a potential earthquake magnitude of 8.0 on the Northern San Andreas fault and a potential earthquake magnitude of 7.3 on the Hayward/Rodgers Creek fault. The project site is characterized on this map as being within an area of very strong to violent ground shaking probability (Modified Mercalli Intensity Scale VIII to IX) (Sonoma County 2014b, Figure PS-1a).

Landslides

According to the Sonoma County General Plan 2020, the most common type of ground failure within the County is landsliding. Due to the varied topography of the County, and the area's seismicity, most parts of the County are susceptible to damaging landslides. Earthquake-induced landslides can occur due to ground deformation and secondary ground cracks after seismic activity. Seismic lurching occurs when soil or a rock mass moves toward features such as a sea cliff, road cut, or steep natural hillside, and can result in landslides. Heavy rainfall, human activities, or earthquakes can trigger or intensify landslides.

Figure PS-1d of the Sonoma County General Plan depicts the landslide susceptibility of areas within the County based on regional estimates of rock strength and slope steepness. The project site is characterized on this map as including areas that have very high landslide susceptibility intermingled with areas of low landslide susceptibility. Areas of very high landslide susceptibility include very steep slopes in hard rock and moderate to very steep slopes in weak rock (Sonoma County 2014c, Figure PS-1d).

Liquefaction

Liquefaction is a soil condition in which earthquake-induced ground motion causes an increase in soil water pressure in saturated, loose, sandy soils, resulting in loss of soil shear strength. Liquefaction can lead to near-surface ground failure, which may result in loss of foundation support and/or differential ground settlement.

The Sonoma County General Plan EIR specifies that the areas within the County that are most susceptible to liquefaction are the silty "Bay muds" south of Petaluma and Sonoma and near Bodega Bay (Sonoma County 2006). Because areas that contain saturated unconsolidated alluvium with a fairly uniform grain size are also susceptible to liquefaction, alluvial basins within Sonoma County have the potential for liquefaction, especially during winter and spring when the ground water table is higher due to precipitation (Sonoma County 2006).

Figure PS-1c of the Sonoma County General Plan 2020 depicts the liquefaction susceptibility of areas within the County. The project site is not designated as having a very high, high, or medium

liquefaction hazard by the County (Sonoma County 2014d, Figure PS-1c). Due to the coarse scale of the map, it does not distinguish small scale features like streams and/or narrow estuaries. Based on the geology and soils present on site, it is possible that the lower sections of the streams where they meet the Estero could be subject to liquefaction in a regionally significant earthquake.

Paleontological Resources

The project site is located in central Sonoma County, near the community of Valley Ford. In this area, surface-mapped sedimentary deposits include unnamed Quaternary (Holocene age) alluvial deposits and late Pliocene to late Miocene age (approximately to 11.63 to 2.58 million years ago [Ma]) Wilson Grove Formation (CGS 2008; Cohen et al. 2013). The Quaternary alluvium is associated with drainages and consists of fan- and fluvial-derived deposits according to published mapping by CGS. These surficial, Holocene age (less than approximately 11,700 years old) alluvial deposits have low paleontological resource sensitivity due to their young age (Cohen et al. 2013). However, the older deposits assigned to the Wilson Grove Formation in this area have produced scientifically significant fossils and has high paleontological resource sensitivity (Powell et al. 2004).

Past excavation and trenching activities in the area surrounding the project site have encountered paleontological resources within the Wilson Grove Formation. This formation represents a shallow marine and terrestrial depositional environment from Pliocene and Miocene time and has produced important invertebrate fossils elsewhere in Sonoma County (Powell et al. 2004).

Regulatory Setting

Federal Regulations

Paleontological Resources Protection Act

The Paleontological Resources Protection Act (PRPA) of 2009 requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land. The Federal Highway Act of 1935 (20 United State Code [USC] 78) addresses paleontological resources. Section 305 of the Act (20 USC 78, 78a) gives authority to use federal funds to salvage archaeological and paleontological sites that are impacted by highway projects. There are several other laws and regulations that also address paleontological resources either directly or indirectly, such as the Antiquities Act of 1906 (16 USC 431-433), Archeological and Paleontological Salvage (23 USC 305), and the National Environmental Policy Act of 1969 (42 USC 138; 49 USC 1653).

State Regulations

Alquist Priolo Earthquake Fault Zoning Act

Surface rupture is the most easily avoided seismic hazard. The Alquist Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the state geologist established regulatory zones, called “earthquake fault zones,” around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. This statute is not applicable to the project because it does not involve structures for human occupancy and is not crossed by an earthquake fault zone as defined in the Act.

Seismic Hazards Mapping Act

The California Geological Survey, CGS, provides guidance with regard to seismic hazards. Under the CGS Seismic Hazards Mapping Act, seismic hazard zones are to be identified and mapped to assist local governments for planning and development purposes. The intent of the Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other types of ground failure, and other hazards caused by earthquakes. CGS Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations. This statute is not applicable to the project because it does not involve structures for human occupancy and because seismic hazards mapping has not been conducted in the area.

Paleontological Resources

Paleontological resources are afforded consideration under CEQA (Title 14, Division 6, Chapter 3, California Code of Regulations: 15000 et seq.). Public Resources Code (PRC) Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for damage to or removal of paleontological resources.

Local Regulations

The following local/regional regulations pertaining to geology and soils would apply to the proposed project.

Sonoma County General Plan 2020

The Public Safety Element of the Sonoma County General Plan provide objectives, policies, and programs regarding Geology and Soils, including the following:

Goal PS-1: Prevent unnecessary exposure of people and property to risks of damage or injury from earthquakes, landslides, and other geologic hazards.

Policy PS-1b: Continue to use studies of geologic hazards prepared during the development review process.

Policy PS-1f: Require and review geologic reports prior to decisions on any project which would subject property or persons to significant risks from the geologic hazards areas shown on Public Safety Element hazard maps and related file maps and source documents. Geologic reports shall describe the hazards and include mitigation measures to reduce risks to acceptable levels. Where appropriate, require an engineer's or geologist's certification that risks have been mitigated to an acceptable level and, if indicated, obtain indemnification or insurance from the engineer, geologist, or developer to minimize County exposure to liability.

Impacts

Methods of Analysis

The project setting was developed by reviewing available information on geology and soils in the project vicinity, including the County's General Plan, Sonoma County General Plan 2020 EIR, Sonoma County Soil Survey, and Natural Resources Conservation Service Web Soil Survey. Records of on-site geologic and soil characteristics from CGS were used to classify geologic hazards associated with the project site.

It is important to note impacts of the environment on a project or plan (as opposed to impacts of a project or plan on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project" (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473 and *California Building Industry Association v. Bay area Air Quality Management District* (2015) Cal.App 4th.). However, information pertaining to potential impacts associated with the environment on the project are included for informational purposes.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Directly or indirectly cause 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? Refer to Division of Mines and Geology Special Publication 42;
- Strong seismic ground shaking;
- Seismic-related ground failure, including liquefaction;
- 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 direct or indirect 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.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Significance Criteria Not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable to the proposed project and therefore, are not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

The proposed project does not include any residences or buildings that would require water or sewer services. No septic tanks or alternative wastewater disposal systems are included in the proposed project. Restrooms would consist of a portable unit serviced weekly or as frequently as necessary to maintain sanitary conditions. Therefore, the project would have no impact related to septic tanks or alternative wastewater disposal systems and these issues are not further evaluated.

Project Impacts and Mitigation Measures

3.6-1: Implementation of the proposed project would not directly or indirectly cause 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. This is a less-than-significant impact.

As described above, the closest known active fault traces are those of the San Andreas Fault, approximately 1 mile southwest of the project site (DOC 1974). Because the project site is not located on the trace of an Alquist-Priolo Fault Zone or any other potentially active fault, fault-line surface rupture would not be a hazard within the project area. In addition, the project does not include any buildings that could be impacted in the event of an earthquake. Therefore, impacts related to fault rupture potential would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-2: Implementation of the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. This is a less-than-significant impact.

The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. As described previously, the Sonoma County General Plan 2020 determined that the project site is located within an area of very strong to violent ground shaking (Sonoma County 2016). Visitors to the project site could be exposed to strong ground-shaking during an earthquake on the San Andreas fault. However, the proposed project would not construct any buildings, and the project site would largely remain open and free of structures that could pose hazards during an earthquake. The use of the project site for low-intensity recreational uses would result in a low risk of loss, injury, or death involving seismic ground shaking. Therefore, impacts related to exposing people to seismic risks would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-3: Implementation of the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. This is a less-than-significant impact.

Soil liquefaction most commonly occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits, uncompacted fill and other Holocene materials

deposited by sedimentation in rivers and lakes (fluvial or alluvial deposits), and debris or eroded material (colluvial deposits) are the most susceptible to liquefaction.

The project site is not designated as having a very high, high, or medium liquefaction hazard by the County (Sonoma County 2014). The proposed project does not include constructing any buildings that could be impacted if liquefaction were to occur. Construction of trails and staging or parking areas would not expose people to significant safety hazards associated with liquefaction, and the use of the project site for low-intensity recreational uses would result in a very low risk of loss, injury, or death involving liquefaction. Therefore, the impact is considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-4: Implementation of the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. This is a less-than-significant impact.

The highly fractured rock formations, steep topography, long coastline, and seismic activity within the County make it especially susceptible to landsliding (Sonoma County 2006). Landslides are especially likely to occur along coastal bluffs and steep streams or riverbanks, and in hilly terrain. Figure PS-1d of the Sonoma County General Plan depicts the landslide susceptibility of areas within the County based on regional estimates of rock strength and slope steepness. Landslide areas designated as high to very high landslide susceptibility on these maps have the potential for adverse impacts.

The project site is characterized on this map as including areas that have a low to moderate landslide susceptibility intermingled with areas of very high landslide susceptibility (Sonoma County 2014). The landslide susceptibility map included in the general plan is based solely on slope and geology, and is prepared at a statewide scale. However, based on a geologic map at a 1:24,000 scale, there are no existing landslides mapped on the project site (CGS 2008), but the areas underlain by Wilson Grove Formation with a slope of more than 30% are likely to be mapped in the very high susceptibility category. A portion of the Trail Easement would cross Figure PS-1b these areas.

The proposed project would construct two 5-foot-wide pedestrian-only trails, two associated staging areas for parking lots and trailhead access, and would improve the access road within the designated Trail Easement. The main access road on the site would be widened to 12-foot wide and re-graded with a gravel base. The bridge would be replaced and paved with asphalt or concrete. The bridge would be designed to span from bank to bank to eliminate disturbance or construction in the channel. The future development of the staging areas would likely include

relocation and extension of the existing access road to both staging areas. Excavations for these improvements are expected to be minimal.

Typical trail building and construction techniques, consistent with County Regional Park's standards, would be sufficient to avoid or minimize exposure of people to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Though construction of trails, approximately 5-feet in width, would require cuts into the hillside, these would be minor in depth and insufficient to affect the global stability of the hillside. Periodic monitoring of the site by County staff would take note of any issues associated with soil sloughing or soil creep, especially following intense rain events, and if necessary, would stabilize such areas in accordance with Regional Parks' standard practice. Therefore, impacts related to landslides would remain **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-5: Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. This is a less-than-significant impact.

As shown in Table 3.6-1, the project site possesses soils with a varying degree of erosion hazard and permeability. Soils with high erosion hazards are primarily located in the southern portion of the site, near the Estero, with Steinbeck loam (30-50% slopes, eroded) occurring in the northwestern portion of the site (USDA 2017). Construction and use of proposed trail corridors and staging areas, and widening, relocation, extension, and use of the access road, has the potential to result in erosion. However, to address potential erosion issues and to provide access through the tidal or mud flat area near the Estero during project operation the County is proposing to use a roll-out surface protection mat that would be approximately 5-feet wide and 400-feet long. The protection mat would begin at the bottom of the slope and would cross the mud flats to allow access to the Estero, if the County decides to provide access to the Estero. Two systems are under consideration which are similar in style and performance; both are open mesh or grate-like hard plastic panels that snap together and secure with clips as well as anchors that secure the mats to the soil.

GeoSystems provides the GeoRunner (a harder plastic grate-like mat), and the GeoTerra (a more flexible mat). Both allow sunlight to penetrate beneath the mat to allow vegetation to continue to grow-further allowing stabilization of the soil under the mats.

Construction activities, such as grading, is expected to result in land disturbance of less than five acres; which includes construction of five-foot wide trails and two small staging areas. However, short-term temporary construction-related disturbance could occur within the 50-foot-wide trail corridors which includes approximately 30.3 acres, plus the 1.5 acres for the staging areas for a total area of 31.8 acres. Because implementation of the project would collectively require construction activities resulting in a land disturbance of more than one acre, the County is

required to obtain coverage under the Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended), which pertains to pollution from grading and project construction. Coverage under the Construction General Permit requires a qualified individual to prepare a Stormwater Pollution Prevention Plan (SWPPP), which would address the potential for construction-related activities to contribute to pollutants within the project's receiving waterways, including contaminants produced from construction-related soil erosion or loss of topsoil. The SWPPP must demonstrate that a combination of best management practices (BMPs) would be implemented that are adequate to meet the discharge prohibitions, effluent standards, and receiving water limitations contained in Construction General Permit. BMP's include erosion control measures such as dust controls, stockpile containment and exposed soil stabilization structures (e.g., visqueen, fiber rolls, gravel bags and/or hydroseed). In addition, all earthwork, grading, trenching, backfilling and compaction operations would be conducted in accordance with the County's erosion control provisions of the Grading, Drainage, and Vineyard and Site Development Regulations (Chapter 11, Sonoma County Code), and Stormwater Quality Ordinance (Chapter 11A, Sonoma County Code). The BMPs required for coverage under the Construction General Permit and the County's erosion control provisions of the Grading and Stormwater Quality Ordinances would prevent soil erosion and topsoil impacts during project construction.

An acceptable degree of soil stability can be achieved by the required incorporation of soil treatment programs (e.g., compaction, drainage control, lime treatment) in the excavation and construction plans to address site-specific soil conditions. Furthermore, widening of the access road and construction of the staging areas would include a gravel base and trail access to the Estero would use the GeoSystems technology, which would reduce operational soil erosion from use of these features. Periodic inspections would reveal areas of erosion, if any, and would implement fixes as necessary. Such fixes may include placement of root wads or woody debris, placement of sandbags or gravel, and/or revegetation, as necessary.

As the project would implement BMP's to reduce erosion, comply with the County's erosion control requirements, and incorporate soil stabilization measures, impacts to soil erosion and loss of topsoil would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-6: The proposed project would not 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. This is a less-than-significant impact.

As stated previously, the project site is located in an area of low liquefaction potential, though landslide hazards vary across the project site (Sonoma County 2014d). The project does not

include the construction of any buildings that could be impacted by unstable soils including lateral spreading, subsidence, liquefaction or collapse. The use of the project site for low-intensity recreational uses would result in a low risk of loss, injury, or death involving unstable geology or soils. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-7: The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. This is a less-than-significant impact.

Expansive soils shrink and swell as a result of moisture change. These volume changes can result in damage over time to building foundations, underground utilities, and other subsurface facilities and infrastructure if they are not designed and constructed appropriately to resist the damage associated with changing soil conditions. As shown in table 3.6-1, a review of USDA soil survey data indicates that the project area is composed of ten soil types which are characterized as having moderate shrink-swell potential (USDA 2017).

As mentioned previously, the project does not include construction of any buildings or structures that could be impacted by expansive soils. Should expansive soils affect trails, creek crossings, or staging areas, issues would be slow to develop, be detected by periodic monitoring of the site, and would be rectified, as needed. Expansive soils, if present, would be more of a site maintenance and repair issue, and would not have adverse impacts on public safety or the environment. Impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6-8: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No impact would occur.

As described previously, the project area contains surficial Holocene age alluvial deposits and late Pliocene to late Miocene age deposits of the Wilson Grove Formation (CGS 2008; Cohen et al. 2013). These surficial Holocene age alluvial deposits are considered to have low paleontological resource sensitivity due to their young age (Cohen et al. 2013). However, the older deposits assigned to the Wilson Grove Formation in this area have produced scientifically significant fossils and has high paleontological resource sensitivity (Powell et al. 2004).

While the project site has been heavily disturbed by grazing activities over the years, any excavation activities required to construct the trails, staging areas, and roadway widening is anticipated to be relatively shallow (less than three to five feet in depth). As such, any excavation activity is not anticipated to impact geological units with paleontological resource sensitivity (e.g., Wilson Grove Formation). Due to the limited ground disturbance required to construct this project (less than five feet of excavation) and the disturbed nature of the ground surface due to existing grazing activities, **no impacts** to paleontological resources are anticipated.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic context considered for cumulative geology and soils impacts is the project site and immediate surroundings. As described above, all impacts related to geologic hazards and soils would be less than significant with implementation of the proposed project. The project would not increase geologic hazards on the project site or within the surrounding area.

3.6-9: The proposed project would not contribute to cumulatively significant impacts related to geology and soils. The project's contribution to an existing significant impact would not be considerable.

The General Plan EIR found that development under the General Plan would result in significant and unavoidable impacts related to risk of loss, injury, or death from seismic-related ground failures, landsliding, subsidence and settlement, soil erosion, and tsunamis and seiches. The proposed project involves development of two trail corridors and staging areas. No buildings or structures would be constructed. Therefore, although the General Plan EIR identifies cumulatively significant impacts related to geology and soils, the proposed project would not contribute to the cumulative impacts. The project's contribution would not be cumulatively considerable resulting in a less than significant contribution.

Mitigation Measures

No mitigation measures are required.

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3.7 Greenhouse Gas Emissions

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential impacts regarding greenhouse gas (GHG) emissions of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

No comments were received that raised concerns regarding GHG emissions in response to the Notice of Preparation (NOP) or the prior Mitigated Negative Declaration that was prepared for the project in October 2016. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

Climate Change Overview

Climate change refers to any significant change in measures of Earth's climate, such as temperature, precipitation, and wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human-caused, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process, as follows: Short-wave radiation emitted by the sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales, and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-20th century, and is the most significant driver of observed climate change (EPA 2017a; IPCC 2013). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further later in Potential Effects of Climate Change.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) (see also CEQA Guidelines Section 15364.5).¹ Some GHGs, such as CO₂, CH₄, and N₂O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. For GHGs included in manufacturing and/or industrial processes, please refer to Appendix B for further details. The following paragraphs provide a summary of the most common GHGs and their sources.²

Carbon Dioxide. CO₂ is a naturally occurring gas and a by-product of human activities, and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO₂ include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO₂ are the combustion of fuels such as coal, oil, natural gas, and wood, and changes in land use.

Methane. CH₄ is produced through both natural and human activities. CH₄ is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without

¹ Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in California Health and Safety Code Section 38505, so impacts associated with other climate-forcing substances are not evaluated herein.

² The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change's (IPCC) Second Assessment Report (1995), IPCC's Fourth Assessment Report (2007), California Air Resources Board's "Glossary of Terms Used in GHG Inventories" (CARB 2017a), and U.S. Environmental Protection Agency's "Glossary of Climate Change Terms" (EPA 2016).

oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N₂O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N₂O. Sources of N₂O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N₂O as a propellant (such as in rockets, racecars, and aerosol sprays).

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere, and maintains a climate that is necessary for life.

Ozone. Tropospheric ozone, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric ozone, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O₂), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric ozone due to chemical reactions that may be enhanced by climate change results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat, and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo (i.e., the reflection of radiation)) (EPA 2016). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of carbon dioxide equivalent (CO₂e).

Sources of GHG Emissions

According to California’s 2000–2017 GHG emissions inventory (2019 edition), California emitted 424.09 MMT CO₂e in 2017, including emissions resulting from out-of-state electrical generation (California Air Resources Board [CARB] 2019). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high GWP substances, and recycling and waste. The California GHG emissions source categories (as defined in CARB’s 2008 Climate Change Scoping Plan: A Framework for Change (Scoping Plan) (CARB 2008)) and their relative contributions in 2017 are presented in Table 3.7-1.

**Table 3.7-1
Greenhouse Gas Emissions Sources in California**

Source Category	Annual GHG Emissions (MMT CO ₂ e)	Percent of Total ^a
Transportation	169.86	40%
Industrial uses	89.40	21%
Electricity generation ^b	62.39	15%
Residential and commercial uses	41.14	10%
Agriculture	32.42	8%
High GWP substances	19.99	5%
Recycling and waste	169.86	2%
Total	424.09	100%

Source: CARB 2019.

Notes: GHG = greenhouse gas; MMT CO₂e = million metric tons of carbon dioxide equivalent; GWP = global warming potential. Emissions reflect 2017 California GHG inventory.

^a Percentage of total has been rounded and total may not sum due to rounding.

^b Includes emissions associated with imported electricity, which account for 23.94 MMT CO₂e.

Between 2000 and 2017, per capita GHG emissions in California have dropped from a peak of 14.1 MT per person in 2001 to 10.7 MT per person in 2017, representing a 24% decrease. In addition, total GHG emissions in 2017 were approximately 5 MMT CO₂e less than 2016 emissions. The declining trend in GHG emissions, coupled with programs that will continue to provide additional GHG reductions going forward, demonstrates that California will continue to reduce emissions below the 2020 target of 431 MT CO₂e (CARB 2019).

Total GHG emissions for all of Sonoma County in 2010 (the most recent year available) were estimated at approximately 1,004,500 MT CO₂e. Transportation emissions constituted 59% of the GHG emissions while building energy accounts for 35%. Other sources including solid waste, off-road transportation equipment, wastewater treatment, and water conveyance account for 3%, 2%, 1.1%, and 1% respectively. Total per capita GHG emissions from the County in 2010 were 12.1 MT CO₂e per person (Sonoma County 2016).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a 0.2°C (0.36°F) rise in average global tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. A warming of approximately 0.2°C per decade is projected, and there are identifiable signs that global warming could take place.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights. Shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year. Sea levels have risen, and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

Model projections for precipitation over California continue to show the Mediterranean pattern of wet winters and dry summers, with seasonal, year-to-year, and decade-to-decade variability. For the first time, however, several of the improved climate models shift toward drier conditions by the mid- to late 21st century in central, and most notably, Southern California. By the late century, all projections show drying, and half of them suggest that 30-year average precipitation will decline by more than 10% below the historical average (CCCC 2012). Additional information is included in Appendix B.

Regulatory Setting

Federal Regulations

Massachusetts v. EPA.

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too

uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The administrator found that elevated concentrations of GHGs—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The administrator further found the combined emissions of GHGs—CO₂, CH₄, N₂O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel by 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and directs the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ by model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021. On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of phase two of the program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

State Regulations

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes executive orders, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. For state regulations not included in the following text, please refer to Appendix B for further details.

State Climate Change Targets

Executive Order S-3-05

EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

AB 32 and CARB's Climate Change Scoping Plan

In furtherance of the goals established in EO S-3-05, the Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emissions limitation, emissions reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for 2020, consistent with the determined 1990 baseline (427 MMT CO₂e). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan) in accordance with Health and Safety Code Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan are the following (CARB 2008):

- Expanding and strengthening existing energy efficiency programs and building and appliance standards.
- Achieving a statewide renewable energy mix of 33%.

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California’s GHG emissions.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state’s long-term commitment to AB 32 implementation.

In the Scoping Plan, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020 absent GHG-reducing laws and regulations, referred to as “business-as-usual”). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, that no further regulatory action would impact vehicle fuel efficiency, and that building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the Scoping Plan’s Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the business-as-usual conditions (CARB 2011). When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (RPS) (12% to 20%) (CPUC 2015), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the business-as-usual conditions.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update). The stated purpose of the First Update is to “highlight California’s success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050” (CARB 2014). The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050, if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the state’s economy to evaluate and describe the larger transformative actions that will be needed to meet the state’s more expansive emission reduction needs by 2050” (CARB 2014). Those six areas are energy, transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), agriculture, water, waste management, natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05’s 2050 reduction goal.

CARB’s research efforts presented in the First Update indicate that it has a “strong sense of the mix of technologies needed to reduce emissions through 2050” (CARB 2014). Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the First Update, CARB recalculated the state’s 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO₂e) and the revised 2020 emissions level projection identified in the 2011 Final Supplement (CARB 2011), CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the business-as-usual conditions (CARB 2014).

On January 20, 2017, CARB released its 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017b). This update presents CARB’s strategy for achieving the state’s 2030 GHG target as established in Senate Bill (SB) 32 (discussed below), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017), acknowledges the need for reducing emissions in agriculture, and highlights the work underway to ensure that California’s natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the natural and working lands, agriculture, energy, and transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2018). When discussing project-level GHG emissions reduction actions and thresholds, the Second Update states, “achieving no net increase in GHG emissions is the correct overall objective, but it may not be appropriate or feasible for every development project. An inability to mitigate a project’s GHG emissions to zero does not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA” (CARB 2017b). The Second Update was approved by CARB’s Governing Board on December 14, 2017.

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050, as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO₂e. The executive order also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32 and AB 197. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets, make changes to CARB's membership, increase legislative oversight of CARB's climate-change-based activities, and expand dissemination of GHG and other air-quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

Other State Regulations and Goals

SB 97. SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines in the California Code of Regulations (CCR), a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4(a)). The CEQA Guidelines require a lead agency to consider the extent to

which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through implementation of project features or off-site measures. The adopted amendments do not establish a GHG emissions threshold, but allow a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the CEQA Guidelines state in CCR Section 15064.4(a) that lead agencies should “make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a “model or methodology” to quantify the emissions, or by relying on “qualitative analysis or other performance based standards” (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: the extent a project may increase or reduce GHG emissions compared to the existing environmental setting; whether project emissions exceed a threshold of significance that the lead agency determines applies to the project; and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

Local Regulations

Sonoma County General Plan 2020

The Open Space and Resource Element of the Sonoma County General Plan (Sonoma County 2016) provides objectives, policies, and programs regarding Air Quality, including the following that are applicable to the project:

Goal OSRC-14.4: Reduce greenhouse gas emissions by 25% below 1990 levels by 2015.

Policy OSRC-14g: Develop a Greenhouse Gas Emissions Reduction Program, as a high priority, to include the following:

1. A methodology to measure baseline and the future VMT and greenhouse gas emissions
2. Targets for various sectors including existing development and potential future development of commercial, industrial, residential, transportation, and utility sources

3. Collaboration with local, regional, and State agencies and other community groups to identify effective greenhouse gas reduction policies and programs in compliance with new State and Federal standards
4. Adoption of development policies or standards that substantially reduce emissions for new development
5. Creation of a task force of key department and agency staff to develop action plans, including identified capital improvements and other programs to reduce greenhouse gases and a funding mechanism for implementation

Goal OSRC-16: Preserve and maintain good air quality and provide for an air quality standard that will protect human health and preclude crop, plant, and property damage in accordance with the requirements of the Federal and State Clean Air Acts.

Objective OSRC-16.1: Minimize air pollution and greenhouse gas emissions.

Policy OSRC-16c: Refer projects to the local air quality districts for their review.

Sonoma County Climate Action 2020 and Beyond Regional Climate Action Plan

In 2016, Sonoma County adopted the Climate Action 2020 and Beyond Regional Climate Action Plan (CAP) which establishes the County GHG reduction goals below 1990 levels: 25% by 2020, 40% by 2030, and 80% by 2050, consistent with the state requirements. The CAP outlines the reduction efforts in six major GHG source areas, including building energy, transportation and land use, solid waste, water and wastewater, livestock and fertilizer, and advanced climate initiatives. Notably, based on projections from the 2010 GHG inventory, Sonoma County is not expected to meet the 2015 goal of 25% below 1990 levels. Furthermore, the County's population is projected to increase by 5% between 2010 and 2020, and employment is projected to increase by 13% over the same period. The two main factors which influence the growth of GHG emissions in the County are from population and economic growth.

In addition, Appendix A of the County's CAP includes a consistency checklist in which projects can identify all applicable mandatory local or regional measures in the CAP in order to demonstrate consistency. Projects that implement all applicable mandatory CAP measures can conclude that their impacts related to GHG emissions would be less than significant under CEQA. However, since the CAP checklist is intended for residential, commercial, and mixed-use projects, the proposed project is not a type of project addressed within the CAP. Thus, the County's CAP does not apply to the proposed project.

Impacts

Methods of Analysis

GHG emissions from construction of the proposed project were calculated using CalEEMod Version 2016.3.2. The current version of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2) assumes that the GWP for CH₄ is 25 (so emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the proposed project.

Construction model inputs are described in more detail in Section 3.3, Air Quality. In summary, the proposed project was assumed to be constructed over a 4-year period, in which construction activities would take place within the months of May and October each year beginning in 2020. Appendix B includes the model output data.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, Bay Area Air Quality Management District thresholds, and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Regarding impacts from GHGs, both Bay Area Air Quality Management District (BAAQMD) and the California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts (BAAQMD 2017; CAPCOA 2008); therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. This analysis uses both a quantitative and a qualitative approach. The quantitative approach is used to address the first significance criterion: "Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?" This analysis considers that, because the quantifiable thresholds developed by BAAQMD were formulated based on AB 32 and California Climate Change Scoping Plan reduction targets for which its set of strategies were developed to reduce GHG emissions statewide, a project cannot exceed a numeric BAAQMD threshold without also conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, if a project exceeds a numeric threshold and results in a significant cumulative impact, it would also result in a significant cumulative impact with respect to plan, policy, or regulation consistency, even though the project may incorporate measures and have features that would reduce its contribution to cumulative GHG emissions.

Separate thresholds of significance have been established by the BAAQMD for operational emissions from stationary sources (such as generators, furnaces, and boilers) and nonstationary sources (such as on-road vehicles) (BAAQMD 2017). The threshold for stationary sources is 10,000 MT CO₂e per year (i.e., emissions above this level may be considered significant). For nonstationary sources, the following three separate thresholds have been established:

- Compliance with a Qualified Greenhouse Gas Reduction Strategy (i.e., if a project is found to be out of compliance with a Qualified Greenhouse Gas Reduction Strategy, its GHG emissions may be considered significant).
- 1,100 MT CO₂e per year (i.e., emissions above this level may be considered significant).
- 4.6 MT CO₂e per service population per year (i.e., emissions above this level may be considered significant). (Service population is the sum of residents plus employees expected for a development project.)

The quantitative threshold of 1,100 MT CO₂e annually adopted by BAAQMD is applied to this analysis. If the project GHG emissions would exceed this threshold then, consistent with BAAQMD Guidelines, it would be considered to have a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact on climate change.

Project Impacts and Mitigation Measures

3.7-1: Implementation of the proposed project may generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This would be a less-than-significant impact.

Construction

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor trucks, and worker vehicles. Since the BAAQMD has not established construction-phase GHG thresholds, construction GHG emissions were amortized assuming a 30-year development life after completion of construction and were compared to the BAAQMD operational GHG threshold. Amortized GHG emissions associated with project construction would result in annualized generation of 5.2 MT CO₂e.

A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Appendix B. The estimated project-generated GHG emissions from construction activities are shown in Table 3.7-2.

**Table 3.7-2
Estimated Annual Greenhouse Gas Emissions**

Emission Source/Year	CO ₂ e (MT/yr)
2020	52.3
2021	44.7
2022	43.8
2023	15.4
Total	157.3
Amortized Construction Emissions	5.2
<i>BAAQMD GHG Threshold</i>	<i>1,100</i>
<i>Significant (Yes or No)?</i>	No

Source: See Appendix B for detailed results.

Note: Total emissions may not sum due to rounding.

CO₂e = carbon dioxide-equivalent; MT/year = metric tons per year

Operation

Once operational, the proposed project would consist of a pedestrian-only trail along with two staging areas. Long-term operation of the proposed project would require minimal upkeep and maintenance. The main source of emissions from operation of the proposed project would include motor vehicle emissions generated by visitors to the site and County maintenance vehicles. As presented in Section 3.13, Transportation and Circulation, because the standard trip generation rates published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 10th Edition, 2017 for a public park would overestimate vehicle trips for the proposed project, surveys were conducted to establish vehicle trip rates for trailhead parking lots in Sonoma County (W-Trans 2018). The surveys were conducted at three separate County Parks and based on the data collected, the average of these three surveyed parks were used to estimate project trips. The proposed project was estimated to generate approximately 26 weekday p.m. peak hour trips and 43 weekend midday peak hour trips (W-Trans 2018). This volume of project trips would be minimal and would result in a negligible increase in GHGs. Furthermore, amortized GHG emissions associated with proposed project construction would result in annualized generation of approximately 5.2 MT CO₂e, which is less than the 1,100 MT CO₂e threshold. Accordingly, operational emissions are anticipated to be minimal and would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.7-2: Implementation of the proposed project may conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This would be a less-than-significant impact.

As discussed in the Regulatory Setting section, the County adopted a CAP in 2016, which includes a consistency checklist for project's to implement applicable GHG reduction measures. However, because the CAP checklist is intended for residential, commercial, and mixed use projects and in some cases industrial projects, the proposed project is not a type of project which is addressed within the CAP. Thus, the County's CAP does not apply to the proposed project.

Consistency with CARB's Scoping Plan

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the Natural Resources Agency observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. To the extent that these regulations are applicable to the proposed project, the project would comply with all regulations adopted in furtherance of the Scoping Plan, to the extent required by law.

Consistency with SB 32 and EO S-3-05. Regarding consistency with SB 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and EO S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), which states, "This Plan draws from the experiences in developing and implementing previous plans to present a path to reaching California's 2030 GHG reduction target. The 2017 Scoping Plan also states that although "the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80% below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals" (CARB 2017b).

The project would not interfere with implementation of any of the above-described GHG reduction goals for 2030 or 2050 because the project would not exceed the BAAQMD's GHG threshold of 1,100 MT CO₂e per year, which was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the proposed project would not exceed the threshold, this analysis provides support for the conclusion that the proposed project would not impede the state's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050.

Based on the above considerations, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic context for evaluating GHGs is future development occurring within the region including Sonoma County and Marin County.

3.7-3: The proposed project could contribute to cumulative GHG emissions within the region. The project's contribution would not be considerable.

GHG impacts are cumulative impacts (BAAQMD 2017; CAPCOA 2008); therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. If a project exceeds the identified significance thresholds, its contribution of GHG emissions would be cumulatively considerable, resulting in a cumulatively significant impact on climate change. As discussed in Impact 3.7-1, the proposed project would not result in GHG emissions in exceedance of the BAAQMD significance threshold. Therefore, the proposed project's GHG emissions would not be cumulatively considerable and the impact is less than significant.

Mitigation Measures

No mitigation measures are required.

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3.8 Hydrology and Water Quality

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential hydrology and water quality impacts of implementation of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

In response to the Notice of Preparation (NOP), the California Department of Transportation (Caltrans) emphasized the necessity of hydrological studies to study whether project level activities would affect riparian flow patterns upstream of bridges, trestles, culverts, or other structures. The Greater Farallones National Marine Sanctuary (GFNMS) expressed concern for possible construction material that could be discharged or deposited into the Estero Americano (Estero) and cause harm. Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included concerns associated with the potential adverse effects on wetlands. The comments note that wetlands provide flood control, water quality maintenance and purification, and are important for recharging aquifers. The California Coastal Commission stressed that public access does not supersede wetland protection. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period. These concerns are addressed in this section.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

The U.S. Geological Survey (USGS) Watershed Boundary Dataset delineates watersheds according to hydrologic units, which are nested within one another according to the scale of interest. USGS identifies hydrologic units by name and by hydrologic unit code (HUC), which gets longer as the watershed boundaries get more detailed. At the highest level of detail for the USGS Watershed Boundary Dataset, the proposed project is within the 38-square-mile Estero Americano sub-watershed (HUC 180500050302), which includes the entirety of Americano Creek's headwaters that flows into the Estero Americano, thence into the Pacific Ocean to the west. Tributaries to the Estero Americano include streams and other surface waters from both Marin and Sonoma County (USGS 2018). This sub-watershed is within the larger 160-square-mile Tomales Bay-Bodega Bay watershed (HUC 1805000503) (USGS 2018).

In managing water resources, the State Water Resources Control Board (SWRCB) and the local governments classify watersheds in a hierarchical system similar to the USGS Watershed Boundary Dataset, but with somewhat different watershed names and boundaries. These geographic boundaries are likewise watershed based, but are typically referred to as hydrologic basins and are defined in the *Water Quality Control Plan for the North Coast Region* (NCRWQCB 2018). These generally constitute the geographic basis around which many surface water quality problems and goals/objectives are defined. The proposed project is within the Bodega hydrologic unit (HU No. 115.00), and the Estero Americano hydrologic area (HA No. 114.22) (NCRWQCB 2018).

The Estero is a scenic and biologically rich coastal estuary along the boundary of Sonoma and Marin counties. The Estero is part of the Gulf of the Farallones National Marine Sanctuary, part of the California Marine Protected Area network, and designated as a State Marine Recreational Management Area by the National Marine Sanctuary Foundation (NMSF) (NMSF 2018; NOAA 2018a). It is also within areas designated as critical habitat for steelhead trout by the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service, and is identified by the California Department of Fish and Wildlife (CDFW) as containing some of the most significant habitat areas in the State (NOAA 2005; CDFW 2008). It is currently listed as an impaired water body by the SWRCB due to historic land uses further described below.

Surface Water Hydrology

Surface waters are categorized by their characteristics as rivers, streams, reservoirs, lakes, and wetlands. Streams are further categorized into ephemeral, intermittent, perennial, and/or headwater. Streams that flow briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the local groundwater table are considered ephemeral. Streams where portions flow continuously only at certain times of the year or seasonally are referred to as intermittent. Streams which flow year-round are considered a permanent (perennial) stream. Generally, perennial stream flow outside of the rainy season is maintained by groundwater seeps and springs located along the streambank or higher up in the watershed. Headwaters are usually small streams at the top of a watershed.

The project site is crossed by two intermittent drainages (one transects the central portion and the other transects the eastern portion), two ephemeral drainages on the western portion of the project site, one vegetated roadside swale parallel to the access roadway, and four ponds/wetland areas mainly associated with the central intermittent drainage and the western portion of the project site (Dudek 2018). The unnamed intermittent drainage in the central portion of the project site (also referred to as the central creek drainage) drains rainwater runoff south into the Estero, ultimately flowing into the Pacific Ocean west of the project site. Several ephemeral drainages channel water from the hills in the western portion of the project site into the central

intermittent drainage (see Figure 3.4-3 in Section 3.4, Biological Resources for the location of these drainage features). The intermittent drainage that transects the project site on the east also flows south into the Estero. A constructed roadside ditch parallels the access road through the center of the project site before also draining into the central intermittent drainage. Construction of the current access road and the subsequent channelization into the roadside ditch has somewhat altered hydrology of the western hillslope down to the unnamed intermittent drainage, although none of the project site appears to be significantly altered as a result of human activities.

Soil Types

The United States Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS) online Web Soil Survey system provides soil data and information produced by the National Cooperative Soil Survey (NCSS). Data available includes soil properties, qualities, erosion susceptibility, groundwater sources, vegetation data, and other physical and chemical soil properties. The project site consists of four major soil types (ten subtypes) which are listed in Table 3.6-1 in Section 3.6, Geology and Soils (NRCS 2018).

Soil types and vegetation determine the susceptibility of erosion and sedimentation potential that future development would have on a site. The proposed project site is entirely covered by California annual grassland, common velvet grass, perennial ryegrass fields, slough sedge swards, purple needle grass grasslands, coyote brush scrub, arroyo willow thickets, eucalyptus groves, and Baltic and Mexican rush marshes (Dudek 2017 Biological Resources Assessment for the Estero Trail Project). The majority of the site is covered in vegetation. Vegetation cover reduces the potential for stormwater erosion from rainfall as the soil is not exposed to the kinetic energy of the rain. Soils on the project site related to erosion hazards range from slight (approximately 54 percent) to severe (approximately 32%) with the severe erosion areas mainly located on the southwestern portion of the project site within steep slopes, on the southeastern portion of the project site within steep slopes, and in portions of the northwestern corner of the project site, also on steep sloped areas (NRCS 2018).

Hydrologic soil groups are based on estimates of runoff potential that each soil type has based on physical and chemical attributes. Soils are assigned a group (A through D) according to their rate of water infiltration within the protection of vegetation, completely saturated, and receive long-term precipitation durations. Hydrologic soil groups A through D (and dual classes of A/D, B/D, and C/D) are defined as follows:

- Group A: Soils having high infiltration rates (or a low runoff potential). These are typical to sands or gravelly sands.
- Group B: Soils having a moderate infiltration rate. These soils can consist of moderately fine to moderately coarse physical soil particles.

- Group C: Soils having a slow infiltration rate. These soils consist of moderately fine to fine particles that do not allow water to be easily transmitted through.
- Group D: Soils in this group have a very slow infiltration rate (high runoff potential). Soils in this group consist of clay-type soils, high shrink-swell potential, areas with a high water table, claypan near the surface, and soils that are shallow over impervious surfaces (like bedrock).

The majority of the project site consists of group B and C soils in areas on the project site that do not contain steep-sloped hillsides. Near the southwestern and southeastern portions of the project site, where steep slopes against the Estero occur, hydrologic soil group D is located and consists of approximately 17% of the project site's land base (NRCS 2018).

Surface Water Quality

The Americano Creek borders the southern edge of the Bordessa Ranch property and is currently recorded on the 2012 California Integrated Report (Clean Water Act Section 303(d) List/ 305(b) Report) (SWRCB 2010). The nutrient and sediment/siltation impairments within Americano Creek and estuary is likely due to agricultural activities such as dairies, pasture grazing-riparian, intensive animal feeding operations, range grazing-upland, and manure lagoons. Being impaired (also referred to as "water quality limited") means that a water body is "not reasonably expected to attain or maintain water quality standards" without additional regulation. The law requires that the California Environmental Protection Agency (EPA) develop total maximum daily loads (TMDLs) for each impaired water body in the nation, which specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards. A TMDL is required, but has not yet been developed for this surface water body for nutrient impairments (SWRCB 2010).

Flood Hazards

The Federal Emergency Management Agency (FEMA) is responsible for coordinating the federal government's response to disasters. FEMA provides help to local and state governments and residents. Flood plan management is one branch of the agency's services for state and local governments. Flood hazard areas identified on the Flood Insurance Rate Map (FIRM) are identified as Special Flood Hazard Area (SFHA). A SFHA is defined as the area that would be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood, or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded) (FEMA 2018).

The project site is in an area of “Undetermined Flood Hazard” Zone D (FEMA 2018). Flood Zone D designation is used for areas where there are possible but undetermined flood hazards, as no analysis of flood hazards has been conducted or recorded.

Due to the project site’s topography, on-site surface waters, and location in relation to the Estero, it is likely that the southern portions and low-lying portions of the project site near the Estero could be exposed to potential flooding hazards.

Tsunami and Seiche

The California Department of Conservation (DOC) and California Office of Emergency Services (OES) partner to identify and record areas of California that may be affected by tsunami and seiche hazards in worst-case scenarios. Areas affected include bays, estuaries, coves, and areas of low-lying lands near the Pacific Ocean. According to the DOC’s OES online mapping database, the project site is not within an area prone to tsunami or seiche hazards (DOC 2018). The closest area within the tsunami hazards area is located along the Estero, west of the project site approximately 1.3 miles. Due to the meandering characteristics of the Estero, steep hillsides, and change in elevation, tsunami inundation areas are not likely to reach the project site.

Groundwater Resources

The project site is located within groundwater basin 1-059: Wilson Grove Formation Highlands. The Wilson Grove Formations Highlands groundwater basin is categorized as having a very low prioritization according to the California Statewide Groundwater Elevation Monitoring (CASGEM) program online system regulated and updated by the state Department of Water Resources (DWR) (DWR 2018a). The nearest recorded active groundwater voluntary well data available through CASGEM includes a residential well (No. 48839) located in Bloomfield, CA, east of the project site approximately 7.0 miles (DWR 2018b). Monitoring for this well started in December 2011 and continued through October 2017. Data indicated that groundwater levels have been steady or risen over the past five years, even though drought conditions were present after the first year of monitoring (DWR 2018b). The well is monitored through a voluntary program where well owners or agencies can enter data into the online CASGEM system. The well is located adjacent to Americano Creek and is likely affected by the creek’s water levels due to its proximity.

Regulatory Setting

Federal Regulations

The Clean Water Act (CWA), which established the basic structure for regulating discharges of pollutants to “waters of the U.S.”, is a 1977 amendment to the federal Water Pollution Control

Act of 1972. Section 202 of CWA requires states to adopt water quality standards. Water quality standards are part of the National Pollutant Discharge Elimination System (NPDES) stormwater discharge permits. Title 33 of the CFR, Section 328.3, waters of the U.S. include all waters subject to interstate or foreign commerce, including tidal waters, interstate waters and wetlands, many intrastate waters, impoundments, tributaries, the territorial seas, and adjacent wetlands. Section 32.8.3 defines waters of the U.S. as:

- a. For purposes of the CWA, 33 U.S.C 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this sections, the term “waters of the United States” means:
 - 1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - 2) All interstate waters, including interstate wetlands;
 - 3) The territorial seas;
 - 4) All impoundments of waters otherwise identified as waters of the United States under this section;
 - 5) All tributaries, as defined in paragraph ©(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;
 - 6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.
- b. The following are not “waters of the United States” even where they otherwise meet the terms in paragraphs (a)(4) through (8) of this section.
 - 1) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.
 - 2) Prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

The U.S. Army Corps of Engineers (USACE) regulates the placement of fill or dredged materials that affect water of the U.S. which includes stream courses and jurisdictional wetlands. USACE regulates these activities under the authority of Section 404 of the CWA. USACE would regulate any development within the project that affects jurisdictional wetlands.

The NPDES program was developed by the U.S. EPA in accordance with Section 303 of CWA. This program regulates all discharges to waters of the U.S. including stormwater discharges

associated with municipal drainage systems, construction activities, industrial operations, and “point sources” (such as wastewater treatment plant discharges direct to a water body).

State Regulations

The SWRCB and each of the nine Regional Water Quality Control Boards (RWQCBs) regulate activities and discharges in waters of the U.S. through CWA Section 404. A 401 certification is required to obtain a 404 permit for construction of wetlands/habitat where waters of the U.S. are impacted. NPDES program is administered by the SWRCB and implemented and enforced by the RWQCBs. The project site is within the North Coast Regional Water Quality Control Board (NCRWQCB) jurisdiction.

Designated beneficial uses for the Estero and Americano Creek that may be impacted by water quality impairments include: municipal (MUN) and domestic, agricultural (AG), industrial service (IND), groundwater recharge (GWR), navigation (NAV), water contact recreation (REC1), non-contact recreation (REC2), commercial and sport fishing (COMM), cold freshwater habitat (COLD), estuarine habitat (EST), marine habitat (MAR), wildlife habitat (WILD), migration of aquatic organisms (MIGR), spawning (SPWN), reproduction and/or early development, and rare/threatened/ or endangered species (RARE) (Gold Ridge Resource Conservation District, 2007; Chapter 3).

Water quality objectives of the NCRWQCB are considered necessary to protect those present and probably beneficial uses listed above, and to protect existing high quality waters within the State (NCRWQCB, 2018). Objectives for inland surface waters, enclosed bays, and estuaries are outlined in Table 3.8-1 below. Only those objectives relevant to potential project-related pollutants of concern are included.

Table 3.8-1
North Coast Basin Plan’s Water Quality Objectives Applicable to Inland Surface Waters, Enclosed Bays, and Estuaries

Constituent	North Coast Basin Plan Narrative Objective
Color	Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.
Floating Material	Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
Suspended Material	Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
Settleable Material	Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.
Oil and Grease	Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on object in the water that cause nuisance or that otherwise adversely affect beneficial uses.
Sediment	The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Table 3.8-1
North Coast Basin Plan’s Water Quality Objectives Applicable to Inland Surface Waters, Enclosed Bays, and Estuaries

Constituent	North Coast Basin Plan Narrative Objective
Turbidity	Turbidity shall not be increased more than 20% above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver therefor.
Chemical Constituents	Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Division 4, Article 4, Section 64435 (Tables 2 and 3), and Section 64444.5 (Table 5), and listed in Table 3-2 of this Plan. Waters designated for use as agricultural supply (AGR) shall not contain concentrations of chemical constituents in amounts which adversely affect such beneficial use.

Source: NCRWQCB 2018.

The Porter-Cologne Water Quality Control Act (Porter-Cologne) is the principal law regulating water quality in California. This statute established enforcement and implementation measures for the SWRCB and the nine RWQCBs, which are charged with implementing this law. Porter-Cologne establishes a comprehensive program for the protection of water quality and the beneficial uses of water. It applies to surface waters, wetlands, and groundwater, and to both point- and nonpoint-sources.

Porter-Cologne also incorporates many provisions of the Clean Water Act, such as delegating the NPDES permitting program to the SWRCB and the RWQCBs.

California Coastal Commission

Pursuant to Sections 30231 and 30233 of the California Coastal Act, the California Coastal Commission (CCC) requires that most development avoid and buffer wetland resources. Policies require the maintenance and restoration of the biological productivity and quality of wetlands, as well as limit the filling of wetlands. The filling of wetlands is generally limited to high priority uses, and must be avoided unless there “is no feasible less environmentally damaging alternative, and authorized fill must be fully mitigated.”

The 1976 Coastal Act Section 30121 defines the term “wetland” as: “[L]ands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.” Further, The Coastal Commission’s Wetlands Briefing Background Information Handout 3 regulations (California Code of Regulations Title 14 (14 CCR)) establish a “one parameter definition” that only requires evidence of a single parameter to establish wetland conditions:

Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes,

and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats (14 CCR Section 13577).

The CCC's one parameter definition states that wetlands must have one or more of the following three attributes: "(1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year."

The CCC provides further guidance on analyzing wetlands and wetland impacts in the Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone (CCC 1994).

Local Regulations

Sonoma County General Plan 2020

The goals and policies listed in the following text summarize the priorities of the Sonoma County General Plan Water Resources Element (Sonoma County 2008) related to hydrology and water quality.

Goal WR-1: Protect, restore and enhance the quality of surface and groundwater resources to meet the needs of all reasonable beneficial uses.

Objective WR-1.2: Work with the RWQCB and interested parties in the development and implementation of RWQCB requirements.

Objective WR-1.2: Avoid pollution of stormwater, water bodies and groundwater.

Policy WR-1c: Prioritize stormwater management measures in coordination with the RWQCB direction, focusing first upon watershed areas that are urbanizing and watersheds with impaired water bodies. Work cooperatively with the RWQCBs to manage the quality and quantity of stormwater runoff from new development and redevelopment in order to:

- (1) Prevent, to the maximum extent practicable, pollutants from reaching stormwater conveyance systems.
- (2) Ensure, to the maximum extent practicable, that discharges from regulated municipal storm drains comply with water quality objectives.

- (3) Limit, to the maximum extent practicable, stormwater from post development sites to pre-development quantities.
- (4) Conserve and protect natural areas to the maximum extent practicable.

The County would obtain all federal, state and local permits, as required by law. The following agencies have been identified as having potential discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- North Coast Regional Water Quality Control Board will require either a Section 401 Water Quality Certification, Waiver of Waste Discharge Requirements for impacts to on-site wetlands.
- California Coastal Commission may require a Coastal Development Permit to construct the proposed project.
- California Coastal Conservancy (Project Funding).
- State Lands Commission is a trustee agency under CEQA with regard to state-owned "sovereign" lands, such as the beds of navigable waters including the Estero Americano.
- The U. S. Army Corps of Engineers (Corps) will require a Nationwide Permit/or Individual Permit under Section 404 of the Clean Water Act for impacts to on-site wetlands.
- Greater Farallones National Marine Sanctuary oversees construction activity adjacent to the Estero Americano.

Impacts

Methods of Analysis

A detailed and thorough review of the Clean Water Act, FEMA flood zones and hazards, Sonoma County General Plan's Water Resource Element, DWR's CASGEM online system, NCRWQCB's Water Quality Control Plan, and the California Coastal Commission were conducted to establish the existing surface water supply and quality, as well as groundwater supply and quality to determine potential impacts to water resources. In addition to regulatory review, a site visit and a Preliminary Jurisdictional Delineation (JD) of on-site wetlands and waters of the U.S. was prepared in March 2018 for the Sonoma County Agricultural Preservation and Open Space District (see Appendix C).

The Preliminary JD study indicates the site supports approximately 3.7 acres of wetlands and approximately 2,971.8 linear feet of other waters that are anticipated to meet the criteria for jurisdictional waters of the U.S., including wetlands based on analysis of the three parameters for wetlands (hydric soils, hydrology, and hydrophytic vegetation) and connectivity/proximity to

known waters of the U.S. (Dudek 2018). Approximately 1.08 acres of seasonally mesic areas do not meet all of the wetland parameters, however, they do meet one parameter to be considered sensitive wetland habitat under the CCC definitions (Dudek 2018). No Traditional Navigable Waters (TNWs), interstate waters, or waters that support interstate commerce, are located within the project site (Dudek 2018).

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i) result in substantial erosion or siltation on- or off-site;
 - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii) 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; or
 - iv) impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Significance Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable and therefore, are not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

The project site is not located within an area that has the potential to be inundated by a tsunami or seiche mapped by the California Conservation Corps (CCC 2009). Tsunami inundation areas are

identified by physical location and features that would cause the potential for a tsunami or seiche to occur based on the relative distance from the Ocean and elevation or topography of the surrounding areas between the Ocean and the area being analyzed. The inundation areas closest to the project site are approximately 0.6 mile west within the Estero. Therefore, this issue is not further addressed.

Project Impacts and Mitigation Measures

3.8-1: Implementation of the proposed project could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality. This is a less-than-significant impact.

Impacts to water quality through exceedance of water quality standards or waste discharge requirements would be minimal from the short-term effects of construction activities on stormwater runoff. No long term or operational effects to water quality or waste discharge requirements would occur as part of the proposed project.

Construction

During construction of the proposed project, construction activities may degrade surface water quality due to stormwater runoff and potential erosion on hillsides. Project components, including construction of the trails and staging (parking) areas would not significantly contribute to stormwater runoff or water quality degradation due to their limited impervious surface as well as compatibility with the existing topography and drainage patterns of the project site.

Construction activities, such as grading, is expected to result in land disturbance of approximately five acres or less; including trails and staging areas and improvements to the access road. Within the two 50-foot-wide trail corridors there could be a temporary disturbance associated with construction equipment accessing the area to construct the trails to approximately 30.3 acres. The County has indicated the trails would be designed to follow existing topography to the greatest extent feasible, and would be designed to outslope¹ onto adjacent hillsides, thereby encouraging sheet flow, as opposed to capturing and concentrating flow from upslope areas (which can promote erosion). Pollutants typically present on construction sites include petroleum products and heavy metals from vehicles and equipment, and construction-related debris and/or litter, which could contain hazardous constituents. Without proper management of construction activities, they could result in water quality degradation if runoff containing sediment and/or other pollutants of concern (i.e., fuels and/or litter) entered receiving waters in sufficient quantities to exceed water quality objectives. Impacts from construction-related activities would generally be short term and of limited duration.

¹ Design that slopes towards the downhill side of the trail to better match the natural drainage patterns and minimize the potential for diversion/erosion to occur.

Because implementation of the project would collectively require construction activities resulting in a land disturbance of more than 1 acre, the County is required to obtain coverage under the Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended), which pertains to pollution from grading and project construction. Coverage under the Construction General Permit requires a qualified individual (as defined by the SWRCB) to prepare a SWPPP to address the potential for construction-related activities to contribute to pollutants within the project's receiving waterways. The SWPPP must describe the type, location and function of stormwater BMPs to be implemented, and must demonstrate that the combination of BMPs selected are adequate to meet the discharge prohibitions, effluent standards, and receiving water limitations contained in Construction General Permit.

The following list includes examples of construction water quality BMPs that are standard for most construction sites subject to the Construction General Permit:

- Silt fences or fiber rolls installed along limits of work or the project construction site
- Stockpile containment and exposed soil stabilization structures (e.g., visqueen, fiber rolls, gravel bags and/or hydroseed)
- Runoff control devices (e.g., fiber rolls, gravel bag barriers/chevrons, etc.) used during construction phases conducted during the rainy season
- Wind erosion (dust) controls
- Tracking controls at the site entrance, including regular street sweeping and tire washes for equipment
- Prevention of fluid leaks (inspections and drip pans) from construction vehicles
- Materials pollution management
- Proper waste/trash management
- Regular inspections and maintenance of BMPs.

These BMPs would be refined or added to as necessary by a qualified SWPPP professional to meet the performance standards in the Construction General Permit.

To obtain coverage under the Construction General Permit, the County must submit to the SWRCB a Notice of Intent and associated permit registration documents, including a SWPPP and site plan, and must obtain a Waste Discharge Identification Number. As a condition of grading permit approval, the County requires water quality BMPs are included on all construction plans and drawings. In addition, all earthwork, grading, trenching, backfilling and compaction operations must be conducted in accordance with the County's erosion control provisions of the Grading, Drainage, and Vineyard and Site Development Regulations (Chapter 11, Sonoma County Code), and Stormwater Quality Ordinance (Chapter 11A, Sonoma County Code).

The BMPs required for coverage under the Construction General Permit and the County's erosion control provisions of the Grading and Stormwater Quality Ordinances would prevent construction-related contaminants from reaching impaired surface waters and contributing to water quality impacts within applicable receiving waters. This would be a **less-than-significant impact**.

Operation and Maintenance

Operation and maintenance of the trails and staging areas would have minimal impact on water quality because the trails would be designed to follow existing topography, be narrow and outloped for minimal impact on drainage patterns, and the site access / trailhead area would be designed to minimize erosion and sedimentation. Design features for trail access to the Estero includes GeoSystems products (such as the GeoRunner or GeoTerra mesh or grate-like plastic mats) that snap together to form a permeable yet structurally sound surface for to allow access through the mud flats to the Estero. The GeoSystems products allow sunlight to penetrate the mats which promote vegetation growth, reducing runoff potential. There would be no non-stormwater discharges because the restroom at the trailhead would consist of a potable unit serviced by an outside contractor and thus would not require a septic tank or leach field. Periodic inspections by County staff would reveal areas of erosion, if any, and would implement fixes as necessary. Such fixes may include placement of root wads or woody debris, placement of sandbags or gravel, and/or revegetation, as necessary. Given the minor watershed area encompassed by the proposed project, and the overall goal of the project to protect natural resources and encourage low-intensity recreation, the impact of operation and maintenance of the project on receiving water quality would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.8-2: Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This is a less-than-significant impact.

The proposed project does not include the use of groundwater for irrigation or drinking water for visitors. No groundwater wells would be drilled to support the proposed project. Proposed project components would not add significant amounts of impervious surfaces that would impede groundwater recharge of the project site, nor would project components contribute to stormwater runoff. This would be a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

3.8-3: Implementation of the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces resulting in substantial erosion, flooding, exceed the capacity of stormwater drainage systems, or impede or redirect flood flows. This is a less-than-significant impact.

As discussed within the project description in Chapter 2, project design and project components were intended to coincide with the natural topography of the project site, to reduce any potential impacts to erosion or siltation on- or off-site. Project components, such as foot-bridges to cross any on-site drainage and slightly sloped trail pathways, have been designed to mimic the natural topography and follow existing contours of the project site to minimize impacts to drainage patterns. No drainage patterns are anticipated to be altered by the natural designs of the crossings at the ephemeral drainages. All crossings would be designed to be consistent with the federal Architectural Barriers Act Accessibility Guidelines for backcountry trails and all footbridges would span the stream and not require any work in the channel so no permits would be needed.

The project site is located in a rural area in Sonoma County, consisting of low density rural residences or ranches, and is not served by public, planned, or engineered stormwater drainage systems. Runoff from the site would either infiltrate on site, collect within one of the four on-site ponds, or flow to the on-site drainages, ultimately discharging into Americano Creek and the Estero and into the Pacific Ocean. As stated in Chapter 2, Project Description, and under Impact 3.8-1, the project would slightly increase impervious surfaces with the development of trailheads/parking lots not to exceed 1.5 acres in size in total combined area and approximately 5 miles in trails. The trail(s) would be considered semi-pervious because while the trails would not be paved, it would be compacted to such a degree that it acts similar to impervious surface. However, given the trail(s) would be narrow and outsloped, this design would avoid problems with accelerated erosion or gulying, because outsloping trails promote sheet flow rather than erosive (i.e., concentrated/channelized) flows. As described further in Impact 3.8-1, the proposed project would not significantly contribute to an excessive increase in rate or volume of runoff compared to existing conditions. Stormwater runoff would not exceed the capacity of existing or planned stormwater drainage systems because none exist on-site or downstream. In addition, the proposed project does not include significant impervious surfaces (i.e., paved parking lots, buildings) that would contribute to the addition of substantial polluted runoff. This would be a less-than-significant impact.

Mitigation Measures

No mitigation measures are required.

3.8-4: Implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This is a less-than-significant impact.

As discussed under Impact 3.9-1, the proposed project would comply with applicable regulations and permits designed to comply with the Water Quality Control Plan for the North Coast Region (NCRWQCB 2018). The SWPPP to be developed and implemented in compliance with the statewide Construction General Permit would be effective at meeting water quality objectives of the Basin Plan. As discussed in the Environmental Setting, the project is within the Wilson Grove Formation Highland groundwater basin (DWR Basin No. 1-059), which has been designated by DWR as having a very low priority. Under the Sustainable Groundwater Management Act, groundwater sustainability plans are only required for basins having a medium or high priority ranking, and there are no plans to develop a groundwater sustainability plan for the Wilson Ground Formation Highland groundwater basin. Because the project would be developed consistent with the Water Quality Control Plan for the North Coast Region, and because there is no sustainable groundwater management plan applicable to the project site, the impact of the project on water quality and groundwater management plans would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context to evaluate potential cumulative effects of the project includes the area within the Tomales Bay-Bodega Bay watershed, the Wilson Grove Formations Highlands groundwater basin, development within Sonoma County, the North Coast Region of DWR, and tributaries to and of Estero Americano and Americano Creek.

3.8-5: Implementation of the proposed project would not result in a cumulative contribution related to impacts to hydrology and water quality. The project's contribution would not be considerable.

Past land uses within the Tomales Bay-Bodega Bay watershed have contributed to surface water quality impairments as described above. Existing impairments include nutrient levels and sedimentation (from erosion, agriculture, and development). As discussed above, stormwater impacts from construction would be minimized through compliance with NPDES measures that

address cumulative impacts during construction activities. Stormwater impacts from operation of the proposed project would not contribute significantly to water quality impacts and would not degrade surface water quality further. The proposed project, in addition to other projects, would not impact groundwater resources as no groundwater would be used, and no significant amount of impervious surfaces would be created to hinder groundwater recharge. Water quality standards would not be exceeded as part of the proposed project, because the project would have minimal impact on the water quality of the Estero and Americano creeks. Drainage patterns would not be altered significantly to change the course of potential sediment loads to surface waters.

The project's contribution to an existing hydrology or water quality cumulative impact would be negligible and not considerable. Therefore, the project's contribution would not be considerable resulting in a less-than-significant cumulative impact.

Mitigation Measures

No mitigation measures are required.

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3.9 Land Use and Planning

Introduction

This section of the Draft Environmental Impact Report (EIR) describes existing and planned land uses within and adjacent to the project site, current land uses, land use designations and zoning, and analyzes the consistency of the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) with existing land use plans and policies, as well as land use compatibility with adjacent lands and with uses proposed internal to the project site. This section also contains a discussion of the project's general consistency with relevant Sonoma County General Plan land use policies. However, conflicts between a project and applicable policies do not constitute a significant physical environmental impact in and of themselves; as such, the project's consistency with applicable policies is included in a table at the end of the Land Use and Planning section. Please see also Section 3.2, Agricultural Resources, for information pertaining to the underlying agricultural uses and designation of the project site.

Comments received in response to the Notice of Preparation (NOP) that raised land use and planning issues included concerns regarding trespassing and camping on adjacent lands, potential for campfires, increase in litter, compatibility with the existing cattle ranch, and the potential for the public to come in contact with cattle. These concerns are not under the purview of CEQA, but a discussion of these concerns is included for informational purposes. Sections 3.2, Agricultural Resources and 3.11, Public Services and Safety, address the interface between cattle and the public. Section 3.11 addresses the issue of litter. Similar concerns were also noted in comments on the prior Mitigated Negative Declaration prepared for the project in October 2016. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

Existing Site

The approximately 500-acre Bordessa Ranch property, which includes the designated Trail Easement or project site is located at 17000 Valley Ford Cutoff, in unincorporated Sonoma County, west of the community of Valley Ford, as shown on Figure 2-1, Regional Location, in Chapter 2, Project Description. The project site is located in a rural area of the county approximately one mile south of the community of Bodega, California, and approximately 2.5

miles west of Valley Ford. The project site is bordered by State Route 1 (SR 1) on the north and extends to the Estero Americano (Estero) on its south.

The Bordessa Ranch property is currently an active cattle ranch with breeding livestock. Cattle use the property for grazing and are present throughout the site.

Access to the project site is from a one-lane gravel/dirt access road off SR 1. A metal gate is located approximately 450 feet from the highway that is typically closed restricting access to the property. The gravel road ends at approximately 0.4 of a mile at a large wooden barn with a smaller agricultural workshop located to the northwest. There are no other large buildings present on the site. Internal to the site is a concrete water tank, spring boxes and concrete water troughs, and two 2,500-gallon above-ground water tanks.

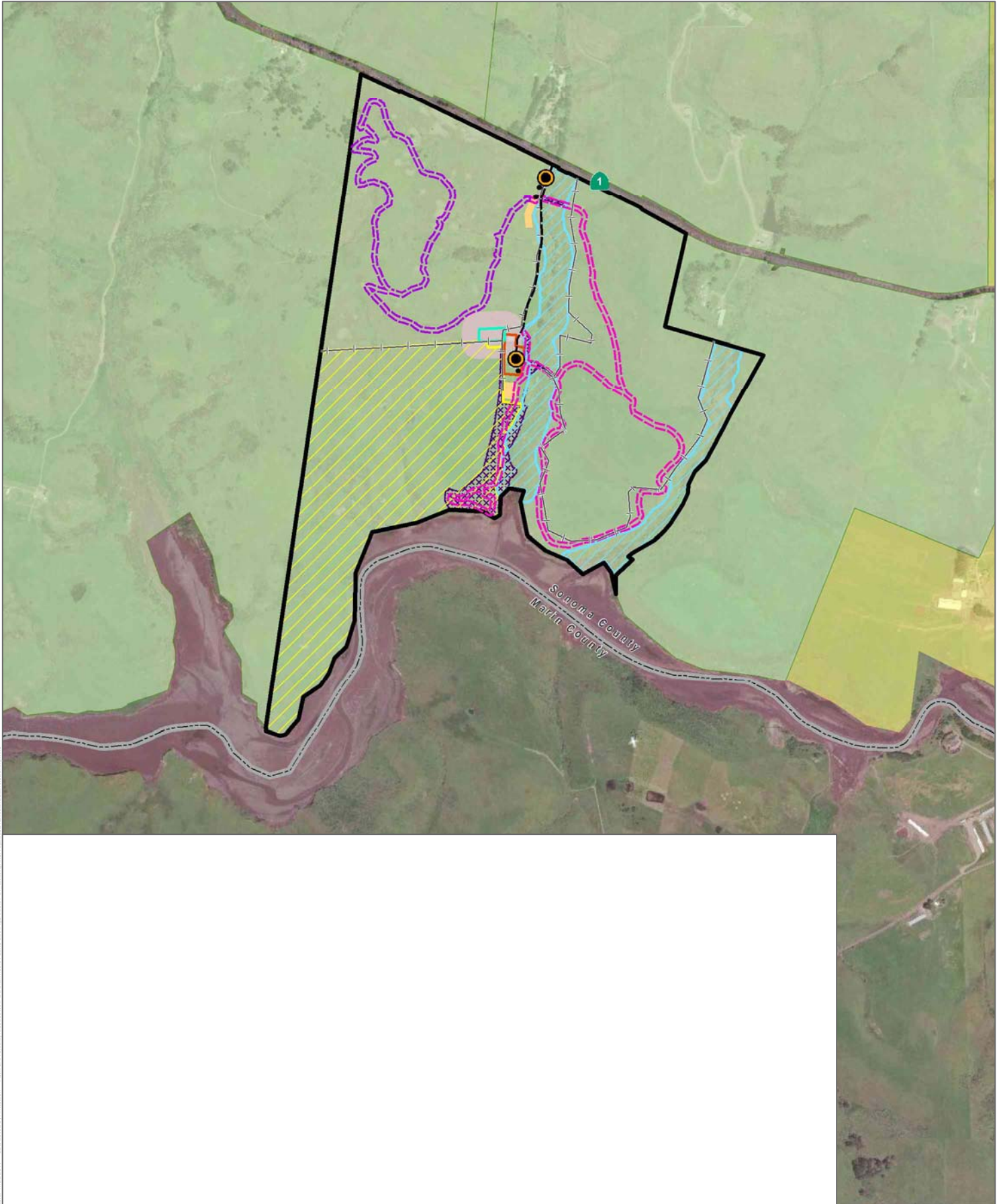
The topography of the property is characterized as rolling hills with a central valley created by a drainage (central creek) that drains into the Estero at the southern end of the site. The undeveloped parts of the project site consist of gently to steeply sloped hillsides, with annual grassland, rocky outcrops, stock ponds, springs, and hillside seeps. Refer to Section 3.4, Biological Resources, for a complete description of the habitat and vegetation on the site. In addition, a perennial creek (central creek) and several smaller drainages are located on the property. These drainages, as well as one of the stock ponds support riparian vegetation and/or eucalyptus groves. Two prominent knolls on the site provide expansive views of the Estero looking to the south.

Adjacent Land Uses

The project site is surrounded by private lands, primarily under agricultural use with similar ranch property adjacent to the north, west and east, with the Estero bordering the southern portion of the site. The only exception is the Sonoma Coast Villa Resort & Spa located across SR 1 generally northwest of the site. Figure 2-2 in Chapter 2, Project Description shows the proposed trail and staging area locations as well as the existing access road and on-site buildings.

Land Use Designation and Zoning

The project site is designated in the Sonoma County General Plan 2020 and zoning code for Land Extensive Agriculture Coastal District (Sonoma County 2013). Portions of the site are within the Riparian Corridor (RC) and Scenic Resource (SR) combining districts, as shown in Figure 2-2. The zoning permits one residence per 160 acres with a minimum lot size of 640 acres if the site were to be subdivided. The site is designated as a critical habitat area within the Coastal Zone, therefore the site includes a Biotic Resource (BR) overlay which requires a biological assessment be prepared if any development is proposed.



SOURCE: Bing Maps 2018; Sonoma County 2015

FIGURE 3.9-1

Existing General Plan Land Use Designation and Zoning
 Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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The Conservation Easement covers the entire Bordessa Ranch property and designates areas for an Agricultural Building Envelope (ABE) and a Residential Building Envelope (RBE), as shown on Figures 2-3 and 2-4 in Chapter 2, Project Description. The Trail Easement specifies the staging areas and trail corridors shall not be placed within two hundred feet of the RBE. This 200-foot buffer or setback is provided between the RBE and the proposed staging areas and trail corridors to provide a separation between the publicly accessible areas and any future residences. As specified in the Conservation Easement, within the 2-acre ABE the landowner is allowed to develop agricultural residences including farm worker housing and farm family housing no larger than 2,000 square feet, barns, corrals, and one lighted horse arena not to exceed 90 feet by 180 feet in size to be used for personal use only. Within the 1-acre RBE the landowner is allowed to develop one primary residence no larger than 3,000 square feet including a garage measuring no larger than 1,200 square feet along with any additional accessory structures and improvements including a guest house, shed, swimming pool and other similar improvements. These improvements are not part of this project, and depending on the approvals required by the County the landowner may be required to conduct additional CEQA analysis if they opt to construct within the ABE or RBE. Figures 2-3 and 2-4 in Chapter 2, Project Description show the location of the ABE and RBE.

Regulatory Setting

Federal Regulations

National Marine Sanctuary Act

The National Marine Sanctuary Act (NMSA) of 1972 authorizes the Secretary of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational or esthetic qualities as national marine sanctuaries. The NMSA provides the authority to issue regulations for each sanctuary and the system as a whole. These regulations can, among other things, specify the types of activities that can and cannot occur within the sanctuary. [See section 308 of the NMSA.]

State Regulations

California Coastal Act

The California Coastal Act became law in 1976 and is the primary law that governs decisions of the California Coastal Commission (CCC). The Coastal Zone of California encompasses 1.5 million acres of land that includes an inland boundary that ranges from several blocks in urban areas to as much as five miles inland in rural areas. The Coastal Act is designed to allow local governments prepare Local Coastal Programs (LCPs) to oversee conservation and use of

coastal resources. LCPs must be consistent with the policies of the Coastal Act and protect public access and coastal resources. The County's Local Coastal Plan (certified in 1982 and last amended in 2001) covers an area which is 55 miles in length and extends inland generally 1,000 yards from the mean tide line (Sonoma County 2001). In the Valley Ford area it extends up to five miles inland. Once a local government obtains LCP certification, projects are subject to local permit approval with the LCP as the standard of review.

While Sonoma County has a certified Local Coastal Program, components of the project may be within the CCC's retained permit jurisdiction. This can be seen in the County's Post-Certification Jurisdiction Maps which identify the County's Coastal Development Permit (CDP) jurisdiction, the CCC retained CDP jurisdiction, and appealable areas where projects may be appealed to the CCC. Coastal Act Section 30601.3 authorizes the CCC to process a consolidated CDP application, when requested by the local government and approved by the Executive Director of the CCC, for projects that straddle jurisdictions of the CCC and the local government. Therefore, we assume that the CDP will be processed directly by the CCC for the entire project in order to streamline the CDP process. As such, the project will be evaluated for consistency with Chapter three policies of the California Coastal Act, and the policies of the County's LCP will be used as guidance.

The Coastal Act establishes basic goals of the state for the coastal zone which include:

- a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
- b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.
- c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

The Coastal Act supports priority uses such as coastal-dependent development and recreational activities within the coastal zone and specifically notes in Article 2, Public Access; Article 3, Recreation; Article 4, Water Quality; and Article 5, Development, the following policies or standards for uses within the coastal zone are applicable to the project:

Article 2, Public Access

Section 30210 Access; recreational opportunities; posting. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30212.5 Public facilities; distribution. Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30214 Implementation of public access policies; legislative intent.

- a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
 - 1 Topographic and geologic site characteristics.
 - 2 The capacity of the site to sustain use and at what level of intensity.
 - 3 The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

- b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Article 3, Recreation

30220. Protection of certain water-oriented activities. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30222. Private lands; priority of development purposes. The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223 Upland areas. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Section 30224 Recreational boating use; encouragement; facilities. Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

Article 4, Water Quality

Section 30230. Marine resources; maintenance. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231. Biological productivity; water quality. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233. Diking, filling or dredging; continued movement of sediment and nutrients.

- a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
 - 1 New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
 - 2 Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
 - 3 In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
 - 4 Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
 - 5 Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
 - 6 Restoration purposes.
 - 7 Nature study, aquaculture, or similar resource dependent activities.
- b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.
- c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division. For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where the improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

- d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section 30234. Commercial fishing and recreational boating facilities. Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry

Section 30235. Construction altering natural shoreline Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Article 6, Development

Section 30251. Scenic and visual qualities. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting

Section 30253. Minimization of adverse impacts. New development shall do all of the following:

- a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

- b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.
- c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.
- d) Minimize energy consumption and vehicle miles traveled.
- e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

Section 30255. Priority of coastal-dependent developments. Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

Greater Farallones National Marine Sanctuary

Designated in 1981, the Gulf of the Farallones National Marine Sanctuary (GFNMS) overseas 1,279-square-miles (966 square nautical miles) just north and west of San Francisco Bay, and protected open ocean, nearshore tidal flats, rocky intertidal areas, estuarine wetlands, subtidal reefs, and coastal beaches within its boundaries. The NMSA requires that the Office of National Marine Sanctuaries (ONMS) prepare regulations to implement the NMSA and national marine sanctuary management plans (15 CFR Part 922).

The ONMS regulations prohibit specific kinds of activities within the national marine sanctuaries, as set forth in Subpart H of section 922.82 of the Code of Federal Regulations. Prohibited activities within the GFNMS, include “[c]onstructing any structure other than a navigation aid on or in the submerged lands of the Sanctuary; placing or abandoning any structure on or in the submerged lands of the Sanctuary.

The GFNMS Management Plan provides comprehensive and coordinated conservation and management of the marine resources (NOAA 2008). The sanctuary includes Bolinas Bay, Bolinas Lagoon, most of Tomales Bay, Estero Americano, Estero de San Antonio, and Bodega Bay.

In order to be consistent with the guiding legislation established in the NMSA, the GFNMS has identified the following priority goals:

- Improve the conservation, understanding, and wise and sustainable use of marine resources;
- Enhance public awareness, understanding, and stewardship of the marine environment;

- Maintain for future generations the habitat and ecological services of the natural assemblage of living resources that inhabit these areas;
- Maintain the natural biological communities to protect, and where appropriate, restore and enhance natural habitats, populations, and ecological processes;
- Provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities;
- Create models of and incentives for ways to conserve and manage these areas, including the application of innovative management techniques; and
- Cooperate with global programs encouraging conservation of marine resources.

Local Regulations

The following local/regional regulations pertaining to land use compatibility would apply to the proposed project.

Sonoma County General Plan 2020

The Land Use Element and Agricultural Resources Element of the Sonoma County General Plan 2020 (Sonoma County 2008) provides objectives, policies, and programs regarding land use, including the following:

Land Use Element

City and Community Centered Growth

Policy LU-2b: Evaluate all public or private projects within the cities and contiguous counties that could affect the unincorporated area for consistency with GP 2020. Inform the Board of any project that may be inconsistent with GP 2020. Work with the applicable city to resolve any inconsistencies in a manner that is consistent with GP 2020.

Protection of Agricultural Lands

Goal LU-9: Protect lands currently in agricultural production and lands with soils and other characteristics that make them potentially suitable for agricultural use. Retain large parcel sizes and avoid incompatible non agricultural uses.

Objective LU-9.1: Avoid conversion of lands currently used for agricultural production to non agricultural use.

Objective LU-9.3: Agricultural lands not currently used for farming but which have soils or other characteristics that make them suitable for farming shall not be developed in a way that would preclude future agricultural use.

Objective LU-9.4: Discourage uses in agricultural areas that are not compatible with long term agricultural production.

Objective LU-9.5: Support farming by permitting limited small scale farm services and visitor serving uses in agricultural areas.

Policy LU-9a: Limit extensions of sewer service into any agricultural production area to parcels with a health or safety problem. Out-of-service-area agreements are the preferred method of extending service in such cases.

Policy LU-9b: Apply a base zoning district of agriculture for any land area designated on the Land Use Map for agriculture. Other overlay zoning districts may be applied where allowed by the agricultural land use category.

Preservation of Scenic and Biotic Resource Areas

Goal LU-10: The uses and intensities of any land development shall be consistent with preservation of important biotic resource areas and scenic features.

Objective LU-10.1: Accomplish development on lands with important biotic resources and scenic features in a manner which preserves or enhances these features.

Sustainability

Goal LU-11: Promote a sustainable future where residents can enjoy a high quality of life for the long term, including a clean and beautiful environment and a balance of employment, housing, infrastructure, and services.

Policy LU-11d: Encourage methods of landscape design, landscape and park maintenance, and agriculture that reduce or eliminate the use of pesticides, herbicides, and synthetic fertilizers; and encourage the use of compost and conservation of water.

Sonoma Coast/Gualala Basin

Objective LU-12.4: In the Coastal Zone, limit the scale of any new visitor and tourist oriented uses and confine them to existing communities and locations that are designated for such uses. Assure that they are compatible with and protect the area's natural,

undeveloped scenic character. Avoid these uses outside of the Coastal Zone except in the RVSC and Agricultural designations.

Agricultural Resources Element

Mitigate Conflicts Between Agricultural and Non-agricultural Uses

Policy AR-4f: Anticipated conflicts between a proposed new agricultural use and existing agricultural activities shall be mitigated by the newer use or application.

Regulate the Location and Intensity of Visitor Serving Uses

Objective AR-6.2: Permit visitor serving uses in all agricultural land use categories if they support and do not adversely affect the agricultural production activities of the area. Bed and breakfast inns of five or fewer rooms, and campgrounds of up to 30 sites, are permissible recreational uses only in the "Land Extensive Agriculture" and "Diverse Agriculture" categories, if they do not adversely affect the agricultural production activities of the area.

Policy AR-6d: Follow these guidelines for approval of visitor serving uses in agricultural areas: (1) The use promotes and markets only agricultural products grown or processed in the local area. (2) The use is compatible with and secondary and incidental to agricultural production activities in the area. (3) The use will not require the extension of sewer and water. (4) The use is compatible with existing uses in the area. (5) Hotels, motels, resorts, and similar lodging are not allowed. (6) Activities that promote and market agricultural products such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products are allowed. (7) Special events on agricultural lands or agriculture related events on other lands in the Sonoma Valley Planning Area will be subject to a pilot event coordination program which includes tracking and monitoring of visitor serving activities and schedule management, as necessary, to reduce cumulative impacts.

Policy AR-6e: Recreational facilities for off-road vehicles of any size shall not be permitted within any agricultural land use category.

Open Space and Resource Conservation Element

Goal OSRC-17: Establish a countywide park and trail system that meets future recreational needs of the County's residents while protecting agricultural uses. The emphasis of the trail system should be near urban areas and on public lands.

Objective OSRC-17.1: Provide for adequate parklands and trails primarily in locations that are convenient to urban areas to meet the outdoor recreation needs of the population, while not negatively impacting agricultural uses.

Sonoma County Local Coastal Plan

Pursuant to the 1976 Coastal Act each county and city along the coast are required to prepare a Local Coastal Plan (LCP). Each jurisdiction is responsible for developing a LCP covering a 20 year planning period which brings local government plans and regulations, as well as those of all public agencies into conformance with State Coastal Act policies. The County's LCP, certified in 1982 and last amended in 2001, provides recommendations and policy statements intended to implement State Coastal Act policies (Sonoma County 2001). The policy recommendations address development of appropriate recreation and access facilities in the coastal zone areas. Among the facilities needed for access ways and shoreline destinations are: safe trails, restrooms, parking areas, trash receptacles and signs (Sonoma County 2001, p. 59). Necessary facilities at a particular site will depend upon expected use and the availability of facilities nearby. Because the level of use is expected to increase over time, facilities may be developed in several phases with new or expanded facilities added as needed.

While normally the County's LCP is the standard of review for Coastal Development Permits (CDPs) within Sonoma County, as noted previously, this project crosses into the CCC's original jurisdiction where the CCC retains permit jurisdiction. As such, a consolidated CDP through the CCC would likely be obtained. The development will be evaluated for consistency with the California Coastal Act, and the policies of the County's LCP will be used as guidance.

Sonoma County Code of Ordinances

The County's Code of Ordinances regulates use and activities allowed within the coastal zone. Specifically, Chapter 20, Parks and Recreation, Section 20-8.5 specifies when dogs are allowed within recreation areas located within the coastal zone and Chapter 26C provides guidance within Coastal Zoning Resource Districts. Within Chapter 26C, Article III LEA CC Land Extensive Agriculture Coastal District, Section 26C-31 permits public parks that do not conflict or interfere with the Coastal Plan. Note, because the County is the lead agency it is exempt from showing compliance with the Sonoma County Zoning Code; however, the project prohibits dogs within the project site.

Sec 20-8.5

- a) There are within the county of Sonoma numerous parks, campgrounds and other recreational sites located within the county's coastal zone, as that area is defined in the Sonoma County coastal plan certified by the State Coastal Commission in December, 1980. A coastal development permit granted by the county of Sonoma is required for any person, including the state of California and its agencies, to undertake to develop an area within this zone, pursuant to the California Coastal Act (Public Resources Code

section 30000 et seq.). Recommendation 22 of this coastal plan provides that if dog predation of coastal livestock cannot be effectively controlled, dogs may be prohibited from areas directly adjacent to vulnerable grazing lands.

- b) Dogs shall be prohibited from parks, campgrounds and other recreational sites located within the coastal zone of Sonoma County whenever the decision-making body makes a finding and imposes a condition on the coastal development permit that such areas are adjacent to vulnerable grazing lands and dog predation cannot be effectively controlled, pursuant to the coastal plan of Sonoma County. This section shall not apply to seeing-eye dogs used to guide a blind person, provided that such dogs shall remain under the immediate control of such blind persons.

Sec. 26C-1

This section is adopted to promote and protect the public health, safety, peace, comfort, convenience, and general welfare. It is also adopted for the following specified purposes:

- a) To ensure that the Coastal Act of 1976 (Division 20 of the Public Resources Code) is implemented in accordance with the coastal program of Sonoma County.
- b) To provide for the orderly and beneficial land use of the coastal zone of Sonoma County.
- c) To protect the character and social and economic stability of agricultural, residential, commercial, industrial, and other communities within the coastal zone of Sonoma County.
- d) To protect the public safety and welfare by regulating the location and uses of all structures and land.
- e) To protect and conserve the scenic, recreational and natural resource characteristics of the county.
- f) To provide for the orderly and timely processing of development projects as anticipated by the California Permit Streamlining Act. Development projects do not include rezonings, plan amendments or other applications accompanied by a request for a rezoning or plan amendment.

Sec. 26C-31

This section provides the permitted uses, subject to site development and erosion control. Non-agricultural uses are permitted under (c), and required that the applicant must demonstrate that the use meets a local need, avoids conflict with agricultural activities and is consistent with objective AR-4.1 and policy AR-4a of the agricultural resources element. Specifically, it notes the following allowed use.

- (9) Public parks which do not interfere with the primary purpose of the Coastal Plan land use designation.

Impacts

Methods of Analysis

Existing land uses in the vicinity of the project site were identified based on a site visit. Planned land uses were identified based on the County's General Plan and information provided by the County. The land use evaluation is based on a qualitative comparison of existing and proposed uses on the site and their compatibility with existing land uses and planned land uses, as defined in the County's General Plan.

The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d) (found in 14 CCR 15000 et seq.), states that the environmental setting of an EIR must discuss "any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." An inconsistency with a general plan or other policy would not necessarily create an environmental impact. In some cases, a general plan policy lays out the standard by which an environmental impact is judged to be significant or less than significant. The determination of project consistency with the County's General Plan must be made by the Board of Supervisors. The information provided in this section is meant to inform that decision.

The analysis below and in Table 3.9-1 evaluates the proposed project's consistency with applicable goals and policies contained in the County's General Plan, as well as other relevant planning documents. Physical environmental impacts resulting from development of the project site are discussed in the applicable technical sections in Chapter 3 of this Draft EIR. CEQA does not treat project consequences relating solely to land use, socioeconomic or population, employment, or housing issues as direct physical impacts to the environment. An EIR may provide information regarding land use, planning, and socioeconomic effects; however, CEQA does not recognize these types of project consequences as typical impacts on the physical environment. The analysis in this section discusses only general land use compatibility and land use policy consistency as opposed to analyzing the physical impacts on the environment that could occur with implementation of the project. This discussion complies with Section 15125(d) of the CEQA Guidelines, as discussed above.

Implementation of the proposed project would result in a minor change in a land use as compared to existing conditions, and would be consistent with the County's underlying Trail Easement, Conservation Easement, and General Plan land use designation of Land Extensive Agriculture (Sonoma County 2013). Changes in land use are regulated by the planning policies adopted by each local governmental jurisdiction in California. Therefore, this change in land use is evaluated in comparison to the planning goals and policies in the County's General Plan. General plans provide long-term goals, policies and standards for development, and all development proposals must be generally consistent with the overall land use guidance

provided in a general plan. Additional land use controls are applied through the County's zoning and grading requirements, as well as other County regulations and ordinances. The project's consistency with applicable ordinances, as well as specific land use implications associated with development of the project is discussed in this section. The analyses of consistency with other planning documents (e.g., regional air quality plans) are provided in the applicable technical sections in Chapter 3 of this Draft EIR.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Project Impacts and Mitigation Measures

3.9-1: Implementation of the proposed project would not divide an existing established community. This would result in no project impact.

The ranch lands within the Conservation Easement and Trail Easement areas are currently used for grazing cattle and contain a barn and other ranch-related outbuildings. There is no other development on the site with the exception of an access road, gate, fencing, and other miscellaneous features noted above in the environmental setting. The physical division of an established community typically refers to the construction of a physical feature (such as a road, railroad tracks, or other type of structure that prohibits access) or removal of a means of access (such as a local road or bridge) that would impair internal access within an existing community, or between a community and adjacent areas.

The project is proposing to construct two trails on the site and other trail-related amenities consistent with the Trail Easement that the District acquired from the landowners. The existing barn and workshop are all located within the Conservation Easement that overlays the ranch property. There would be no changes or modifications to these existing uses as part of this project. Construction of the trails and trail-related amenities pursuant to the Trail Easement would not divide an established community because the project site does not contain an established community; therefore, there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

3.9-2: Implementation of the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This is considered a less-than-significant impact.

The Sonoma County General Plan 2020 includes goals, objectives and policies to facilitate future parks, trails and other recreational amenities for County residents. Specifically, Open Space and Resource Conservation Goal OSRC-17 aims to “establish a countywide park and trail system that meets future recreational needs of the County’s residents while protecting agricultural uses.” The Trail Easement is located within a working cattle ranch which would continue to operate as a working ranch, with grazing still occurring throughout the entire property. Table 3.9-1 lists all applicable County goals and policies and addresses consistency with the project. As noted previously, conflicts between a project and applicable policies do not constitute a significant physical environmental impact in and of themselves. An inconsistency with a general plan goal or policy would not necessarily create an environmental impact unless the goal or policy sets forth physical changes to the environment that could result in an impact. In some cases, a general plan policy lays out the standard by which an environmental impact is judged to be significant or less than significant. The determination of project consistency with the County’s General Plan must be made by the Board of Supervisors. The information provided is meant to inform that decision.

Consistency with other applicable plans and ordinances is included below.

California Coastal Act and Sonoma County Local Coastal Plan

As detailed under the Regulatory Setting, the California Coastal Act became law in 1976 and is the primary law that governs decisions of the California Coastal Commission (CCC). The Coastal Act is designed to allow local governments prepare LCPs to oversee conservation and use of coastal resources. LCPs must be consistent with the policies of the Coastal Act and protect public access and coastal resources. The County’s LCP (certified in 1982 and last amended in 2001) includes the Valley Ford area (project site) and extends up to five miles inland. Once a local government obtains LCP certification, projects are subject to local permit approval with the LCP as the standard of review. However, the project site straddles jurisdictions of the CCC and the County; therefore, the project will be evaluated for consistency with Chapter three policies of the California Coastal Act, and the policies of the County’s LCP will be used as guidance.

Applicable Chapter three policies of the Coastal Act include provision of public access; water-related recreation, marine resources and water quality; and allowable development.

Public Access

Section 30210 addresses providing maximum access and recreational opportunities for the public consistent with public safety, rights of private property owners and protecting natural resource areas from overuse. The project has been designed to allow public access within this area consistent with the preservation of natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources. Section 30212.5 requires that public facilities, including parking areas be distributed throughout an area so as to mitigate against the impacts of overcrowding or overuse by the public of any single area. The proposed trail system is relatively small and would not exceed a total of 5 miles in length. To accommodate visitors to the area the project includes two staging/parking areas that would provide up to 55 parking spaces. Section 30214 sets forth the policies for public access that take into account a site's topography and geologic conditions, capacity of the site to sustain use and level of intensity, and the right to limit public access due to the presence of protected biological resources and proximity to residential uses. This section also addresses the need to provide oversight and management to protect the privacy of adjacent uses and to ensure litter control to protect aesthetic values. The project's trail system and staging/parking areas are located within the District's Trail Easement and have been designed consistent with the existing topography to allow public access consistent with the preservation of natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources. The trails and staging/parking areas are to be located within the central portion of the property and are not within a close proximity to adjacent ranch uses to the west or east to affect privacy. Lastly, Maintenance of the trails and staging areas would be provided by County Regional Parks. Regional Parks would be responsible for ensuring the trails are kept functional and safe and trash would be removed on a weekly basis, unless more frequent removal is required. The project is consistent with the intent of these policies.

Recreation

Sections 30220, 30222, 30223, and 30224 in Article 3 address protection of water-oriented activities; use of private lands to enhance public opportunities for coastal recreation and encouraging recreational boating. Section 30224 encourages increasing public launching facilities and providing new boat facilities in natural harbors. The East Trail includes potential access to the Estero to enable non-motorized boats (e.g., kayaks) to be carried to the water's edge. Within the East Trail, the County has identified installing a roll-out surface protection mat that would be approximately 5 feet wide and 400 feet long that would begin at the bottom of slope and would cross the mud flats to permit access to the Estero. The project is consistent with the intent set forth in these sections.

Water Quality

Sections 30230, 30231, 30233, 30234 and 30235 in Article 4, address maintaining marine resources in order to sustain biological productivity and maintain healthy populations of marine species; maintaining the biological productivity and quality of coastal waters by minimizing wastewater discharge, controlling runoff, and maintaining natural vegetation buffer areas to protect riparian habitats; diking, filling and dredging of coastal waters; commercial and recreational boating facilities; and construction activities that would alter the natural shoreline. Construction of the project would comply with the County's Stormwater Quality requirements included in Chapter 11A of the County's Municipal Code, which states construction activities are required to implement best management practices to prevent debris from entering any water source. In addition, Section 11.04.010 of the County's Municipal Code defines the construction grading permit requirements which the County would follow. Access to the Estero for hikers and non-motorized boats is proposed as part of the East Trail alignment and includes a temporary mat system designed for sensitive areas. The project does not include any uses or activities that would require diking, filling or dredging of coastal waters or construction activities that could alter the natural shoreline. In addition, access to the Estero would maintain the natural vegetation areas and would protect riparian habitats. The project is consistent with the intent set forth in these sections.

Development

Sections 30251, 30253 and 30255 address protection of scenic and visual coastal area due to development; minimization of impacts associated with development; and location of coastal development outside of wetland areas. Within the East Trail alignment the County has identified installing a roll-out surface protection mat that would be approximately 5 feet wide and 400 feet long that would begin at the bottom of slope and would cross the mud flats to the main Estero channel. The two systems under consideration include a series of open mesh panels (GeoSystems GeoRunner or Geoterra) that snap together and secure with clips as well as anchors (or rebar) that secure the mat to the soil surface. This design would enable the system to be removed before large storm events. Impacts associated with this type of system are addressed in Section 3.4, Biological Resources. This would not create a permanent structure within the Estero and would not result in adverse visual effect. The project is consistent with the intent set forth in these sections.

Sonoma County Local Coastal Plan

The County's LCP, certified in 1982 and last amended in 2001, provides recommendations and policy statements intended to implement the State's Coastal Act policies. The LCP policy recommendations address development of appropriate recreation and access facilities in the coastal zone areas. Among the facilities needed for access ways and shoreline destinations are: safe trails, restrooms, parking areas, trash receptacles and signs (Sonoma County 2001, p. 59).

The project includes a limited trail system comprised of two trails that would not exceed 5 miles in total length, a portable restroom facility at the trailhead, two staging/parking areas to accommodate up to 30 vehicles, trash receptacles, and informational and educational signage consistent with the LCP. The project is consistent with the guidance provided in the LCP for recreational facilities within the coastal zone.

Greater Farallones National Marine Sanctuary

The Greater Farallones National Marine Sanctuary (GFNMS) overseas 1,279-square-miles (966 square nautical miles) just north and west of San Francisco Bay, and protected open ocean, nearshore tidal flats, rocky intertidal areas, estuarine wetlands, subtidal reefs, and coastal beaches within its boundaries. The GFNMS Management Plan (NOAA 2008) provides comprehensive and coordinated conservation and management of the marine resources and includes a number of priority goals. The GFNMS Management Plan does not include specific policies for development, but identifies a number of priority goals including enhancing public awareness and stewardship of the marine environment, and maintaining the biological communities to protect, restore and enhance and incentives to conserve and manage these areas. The project includes informational and educational signage to be provided at the Estero informing people about the fragile environment and where access to the Estero is provided.

The National Marine Sanctuary Act requires that the Office of National Marine Sanctuaries (ONMS) prepare regulations to implement the NMSA and national marine sanctuary management plans (15 CFR Part 922). Prohibited activities within the GFNMS, include “[c]onstru[ct]ing any structure other than a navigation aid on or in the submerged lands of the Sanctuary; placing or abandoning any structure on or in the submerged lands of the Sanctuary ...” As described in Chapter 2, Project Description, access for boaters and hikers to the Estero would be via a removable system of mats that provide a solid surface. The system is designed to be removed in the event of a storm or seasonally if it is determined necessary.

Sonoma County Ordinances

The County is exempt from the Sonoma County Zoning Code and would not be required to obtain a coastal development permit, as required under Chapter 20, Parks and Recreation, Section 20-8.5. This section of the County's Zoning Code addresses prohibiting dogs from parks, campgrounds and other recreational sites located within the county's coastal zone if those site are located near grazing lands. The project would not allow dogs within the staging/parking lots or on the trails. This would be enforced through the County's Regional Park Rangers that would conduct periodic patrol of the trails and staging/parking areas and visitors calling to report anyone not complying with this rule of entry. The project is consistent with the allowable uses included within Chapter 26C, Land Extensive Agricultural District Coastal District that allows public parks which do not interfere with the primary purpose of the Coastal Plan land use designation.

Mitigation Measures

No mitigation measures are required.

Table 3.9-1
Consistency with Applicable Sonoma County General Plan 2020
Goals, Policies and Objectives

Goal/Policy/Objective	Consistency Analysis
Policy LU-2b: Evaluate all public or private projects within the cities and contiguous counties that could affect the unincorporated area for consistency with GP 2020. Inform the Board of any project that may be inconsistent with GP 2020. Work with the applicable city to resolve any inconsistencies in a manner that is consistent with GP 2020.	Consistent. Consistency with applicable goals, policies and objectives from the County's General Plan has been conducted as part of this EIR and is provided in this table.
GOAL LU-9: Protect lands currently in agricultural production and lands with soils and other characteristics that make them potentially suitable for agricultural use. Retain large parcel sizes and avoid incompatible non agricultural uses.	Consistent. The project is proposed within a Trails Easement purchased by the County and would not require the subdivision of land. The remainder of the project site is currently used for cattle grazing and is under a Conservation Easement. The project site is designated as Grazing Land by the California Department of Conservation Important Farmland Map and does not contain soils suitable for agricultural production.
Objective LU-9.1: Avoid conversion of lands currently used for agricultural production to non agricultural use.	Consistent. The project site is a working cattle ranch and would continue to be a working ranch and used for grazing. The project would develop trails and two staging/parking areas within a Trails Easement purchased by the County. The project would not create an irreversible commitment of agricultural lands.
Objective LU-9.3: Agricultural lands not currently used for farming but which have soils or other characteristics that make them suitable for farming shall not be developed in a way that would preclude future agricultural use.	Consistent. As discussed in Section 3.2, Agricultural Resources, the project site is designated as Grazing Land by the California Department of Conservation and does not contain soils suitable for farming.
Objective LU-9.4: Discourage uses in agricultural areas that are not compatible with long term agricultural production.	Consistent. The project includes development of trails and two staging/parking areas within a Trails Easement purchased by the County. The remainder of the project site is currently an active cattle ranch and used for cattle grazing. Trails and grazing are considered compatible uses and many trails in Sonoma County are in areas where cattle grazing occurs. Development of the project would not discourage the existing grazing activities.
Objective LU-9.5: Support farming by permitting limited small scale farm services and visitor serving uses in agricultural areas.	Consistent. The project supports the existing cattle ranch and is providing a recreational amenity in an agricultural area of the County.
Policy LU-9a: Limit extensions of sewer service into any agricultural production area to parcels with a health or safety problem. Out-of-service-area agreements are the preferred method of extending service in such cases.	Consistent. The project does not include the provision or extension of sewer, water or storm drain infrastructure to serve the site.
Policy LU-9b: Apply a base zoning district of agriculture for any land area designated on the Land Use Map for	Consistent. The project site is zoned Land Extensive Agriculture and portions of the site are within the Riparian Corridor (RC) and Scenic Resource (SR) combining districts.

Table 3.9-1
Consistency with Applicable Sonoma County General Plan 2020
Goals, Policies and Objectives

Goal/Policy/Objective	Consistency Analysis
agriculture. Other overlay zoning districts may be applied where allowed by the agricultural land use category.	In addition, the project site includes a Trail Easement and a Conservation Easement.
Goal LU-10: The uses and intensities of any land development shall be consistent with preservation of important biotic resource areas and scenic features.	Consistent. The Trail Easement, which includes the trails and staging/parking lot areas are not proposed within any important biotic resource areas, as detailed in Section 3.4, Biological Resources. Extensive surveying was done to identify where the important biological resources are located to ensure impacts to these resources could either be avoided or mitigated. In addition, the project would not affect any scenic resources.
Objective LU-10.1: Accomplish development on lands with important biotic resources and scenic features in a manner which preserves or enhances these features.	Consistent. The Trail Easement, which includes the trails and staging/parking lot areas has been designed to preserve the biotic resources and to enhance access to scenic features for the public to experience and enjoy.
Goal LU-11: Promote a sustainable future where residents can enjoy a high quality of life for the long term, including a clean and beautiful environment and a balance of employment, housing, infrastructure, and services.	Consistent. The project is designed to provide trails and public access within an area of the County that has limited access to trails and to views of the Estero Americano.
Policy LU-11d: Encourage methods of landscape design, landscape and park maintenance, and agriculture that reduce or eliminate the use of pesticides, herbicides, and synthetic fertilizers; and encourage the use of compost and conservation of water.	Consistent. The project would not use any pesticides, herbicides, or synthetic fertilizers and does not include any irrigation.
Objective LU-12.4: In the Coastal Zone, limit the scale of any new visitor and tourist oriented uses and confine them to existing communities and locations that are designated for such uses. Assure that they are compatible with and protect the area's natural, undeveloped scenic character. Avoid these uses outside of the Coastal Zone except in the RVSC and Agricultural designations.	Consistent. The project is located within the Coastal Zone in a designated Trail Easement that the County purchased to provide public access consistent with the preservation of natural resources and habitat connectivity; open space and scenic views.
Policy AR-4f: Anticipated conflicts between a proposed new agricultural use and existing agricultural activities shall be mitigated by the newer use or application.	Consistent. The project is designed to be compatible with the existing cattle ranch. The County has numerous parks where the public and cattle share the same area and have experienced few issues.
Objective AR-6.2: Permit visitor serving uses in all agricultural land use categories if they support and do not adversely affect the agricultural production activities of the area. Bed and breakfast inns of five or fewer rooms, and campgrounds of up to 30 sites, are permissible recreational uses only in the "Land Extensive Agriculture" and "Diverse Agriculture" categories, if they do not adversely affect the agricultural production activities of the area.	Consistent. The project is proposed within an existing Trail Easement purchased by the County in an area designated and zoned for agricultural uses. The County is proposing to provide public access consistent with the preservation of natural resources and habitat connectivity; open space and scenic views.
Policy AR-6d: Follow these guidelines for approval of visitor serving uses in agricultural areas: (1) The use promotes and markets only agricultural products grown or processed in the local area. (2) The use is compatible with and secondary and incidental to agricultural production	Consistent. The project has been designed consistent with the Trail Easement that allows for low-intensity public outdoor recreational and educational uses on consistent with the underlying Conservation Easement. Project uses are compatible with the County's underlying Land Extensive

Table 3.9-1
Consistency with Applicable Sonoma County General Plan 2020
Goals, Policies and Objectives

Goal/Policy/Objective	Consistency Analysis
activities in the area. (3) The use will not require the extension of sewer and water. (4) The use is compatible with existing uses in the area. (5) Hotels, motels, resorts, and similar lodging are not allowed. (6) Activities that promote and market agricultural products such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products are allowed. (7) Special events on agricultural lands or agriculture related events on other lands in the Sonoma Valley Planning Area will be subject to a pilot event coordination program which includes tracking and monitoring of visitor serving activities and schedule management, as necessary, to reduce cumulative impacts.	Agriculture designation and zoning and existing cattle ranch. The project does not require the extension of water or sewer infrastructure and does not include growing or marketing of agricultural products; development of hotels, motels or other lodging; activities that promote and market agricultural products; or agricultural-related special events.
Policy AR-6e: Recreational facilities for off-road vehicles of any size shall not be permitted within any agricultural land use category.	Consistent. The project is designed to allow non-commercial low-intensity outdoor recreational and environmental education uses and non-motorized activities that do not adversely impact the natural resources or agriculture on the property. No off-road vehicles would be permitted as part of the project.
Goal OSRC-17: Establish a countywide park and trail system that meets future recreational needs of the County's residents while protecting agricultural uses. The emphasis of the trail system should be near urban areas and on public lands.	Consistent. The County purchased a Trail Easement in order to develop low-intensity outdoor recreational and environmental education uses that protect the existing cattle grazing operation and meets the recreational needs of County residents.
Objective OSRC-17.1: Provide for adequate parklands and trails primarily in locations that are convenient to urban areas to meet the outdoor recreation needs of the population, while not negatively impacting agricultural uses.	Consistent. The project's trail corridors are intended to provide public access from State Route 1 to scenic vista points and possible limited public access to the Estero Americano, and has been designed, consistent with the Trail Easement, to not adversely impact the natural resources or agriculture present on the site.

Cumulative Impacts

The land use analysis in an EIR does not typically include a discussion of cumulative impacts because the consistency analysis for applicable land use goals and policies and compatibility with existing adjacent uses is not an additive effect.

References

County of Sonoma. 2001. Local Coastal Program, Local Coastal Plan. 1981. Last amended 2001.

County of Sonoma. 2008. Sonoma County General Plan 2020. Land Use Element. 2008. Last amended August 2016.

County of Sonoma. Municipal Code. Last Amended June 20, 2019.

Public Resources Code. Division 20. California Coastal Act. 2018.

NOAA (National Atmospheric and Oceanic Administration). 2008. Gulf of the Farallones National Marine Sanctuary Final Management Plan (GFNMS). U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Marine Sanctuary Program. October 2008.

3.10 Noise

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential noise impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

No comments were received that raised concerns regarding noise in response to the Notice of Preparation (NOP) or the prior Mitigated Negative Declaration released in October 2016. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

This section describes the existing noise conditions in the project area and also identifies the resources that could be affected by the proposed project.

Noise Background Terminology

Fundamentals of Environmental Noise

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are lower. As noise levels increase, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system has been developed to mimic the response of the human ear. The frequency weighting called “A” weighting is typically used for lower noise levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is referenced in units of dBA.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. “It is generally accepted that the average healthy ear...can barely perceive a noise level change of 3 dB” (Caltrans 2013). A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as twice or half as loud. A doubling of sound energy results in a 3 dBA increase in sound, which means that a doubling of sound energy (e.g., doubling the average daily trips [ADT] on a road) would result in a barely perceptible change in sound level.

Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources, such as traffic, as well as changes in atmospheric conditions.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed “community noise equivalent level” (CNEL) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (L_{xx}), the day–night sound level (L_{dn}), and CNEL. Below are brief definitions of these measurements and other terminology used in this report.

- *Decibel (dB)* is a unitless measure of sound on a logarithmic scale which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- *A-weighted decibel (dBA)* is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- *Equivalent sound level (L_{eq})* is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the day–night average sound levels (L_{dn}) and community noise equivalent level (CNEL) scales.
- *Maximum sound level (L_{max})* is the maximum sound level measured during the measurement period.
- *Minimum sound level (L_{min})* is the minimum sound level measured during the measurement period.

- *Percentile-exceeded sound level (L_{xx})* is the sound level exceeded x percent of a specific time period. L₁₀ is the sound level exceeded 10% of the time.
- *Day–night average sound level (L_{dn})*. The L_{dn} is a 24-hour average A-weighted sound level with a 10 dB penalty added to the nighttime hours from 10:00 p.m. to 7:00 a.m. The 10 dB penalty is applied to account for increased noise sensitivity during the nighttime hours. Resulting values from application of L_{dn} versus CNEL rarely differ by more than 1 dB (see definition below), and therefore these two methods of describing average noise levels are often considered interchangeable.
- *Community noise equivalent level (CNEL)* The CNEL is the average equivalent A-weighted sound level during a 24-hour day. CNEL accounts for the increased noise sensitivity during the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.) by adding 5 dB to the sound levels in the evening and 10 dB to the sound levels at night. CNEL and L_{dn} are often considered equivalent descriptors.

Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time, and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically “hard” sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically “soft” sites. Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of sound attenuation discussion, a “hard” or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically “soft” or absorptive site is characteristic of unpaved loose soil or vegetated ground.

Existing Noise Conditions

The project vicinity is rural in nature, and the primary noise source is vehicular traffic on local roadways, specifically State Route 1 (SR 1). No major industrial uses, airports, or large commercial or educational institutions are located in the project vicinity. The nearest roadway SR 1 is also known as Valley Ford Cutoff. In order to characterize noise levels existing in the project vicinity, a series of short-term noise measurements were conducted.

Dudek visited the proposed project site on October 9, 2017, to measure ambient sound levels in the vicinity. Short-term noise measurements were conducted at three locations (shown in Figure 3.10-1). One noise measurement (ST1) was conducted about 10 feet in front of the main gate

leading to the project site. This location is approximately 175 feet from the edge of the pavement of SR 1. A second noise measurement (ST2) was conducted in the parking lot of the Sonoma Coast Villa Resort & Spa located at 15999 Valley Ford Cutoff. The final measurement (ST3) was located on the driveway of the nearest residential receptor to the east of project site.

Short-term (ST#) measurements were conducted with a Rion NL-62 sound level meter placed on a tripod with the microphone positioned approximately 5 feet above the ground. This is an ANSI Type I sound level meter. Each of the noise measurements was 15 minutes in duration. In order to gather traffic volume data to be used in calibrating the traffic noise model, vehicle traffic was manually counted simultaneously with the measurement at location ST1. There were 185 automobiles, one medium truck, and eight heavy trucks observed during the ST1 measurement. Given traffic count information for SR 1 was collected during the sound level measurement at ST1, manual traffic counts were not performed with the sound level measurements at ST2 and ST3. The resulting sound level measurement data is summarized in Table 3.10-1.

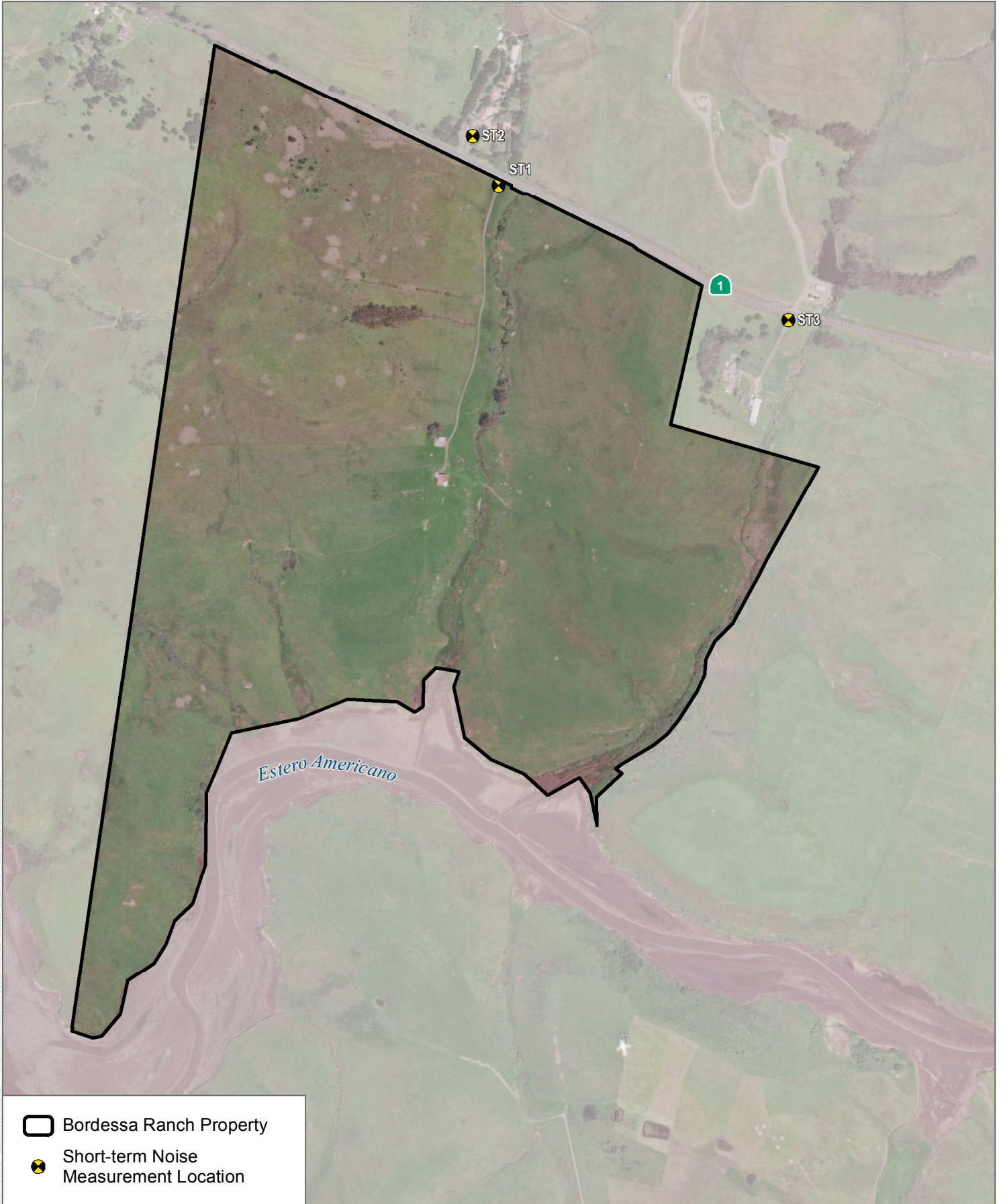
**Table 3.10-1
Short-Term Noise Measurement Data Summary (dBA)**

Site	Description	Measurement Date & Time	L _{eq} (dBA)	L _{max} (dBA)	L _{min} (dBA)
ST1	10 feet in front of gate to project site, approximately 175 feet from SR 1	1:20 p.m.–1:35 p.m.	56	66	25
ST2	Parking lot of the Sonoma Coast Villa Resort & Spa located across Valley Ford Cutoff from project site	1:47 p.m. – 2:02 p.m.	56	65	30
ST3	Residence Driveway at 15999 Valley Ford Cutoff, approximately 20 feet from the edge of the road pavement	2:13 p.m. – 2:28 p.m.	65	82	30

Notes: L_{eq} = equivalent continuous sound level (time-average sound level); L_{max} = maximum noise level; L_{min} = minimum noise level
Source: Dudek 2018.

As shown in Table 3.10-1, the existing ambient noise measurements ranged from 65 dBA L_{eq} near SR 1 to 56 dBA L_{eq} at distances over 100 feet from the road. Since traffic noise is the dominate noise source in the area, ambient sound levels are expected to be lower with increasing distances from the road.

At ST2 when traffic was not present, low levels of mechanical noise could be heard from the Sonoma Coast Villa Resort & Spa, located generally to the north of the project site. Tones from this equipment in the 63 Hz and 125 Hz octave bands were measured at approximately 28 dB when traffic was not present. This noise was not noticed near the project site or at the nearest residential receptor.



SOURCE: Bing Maps 2018

DUDEK

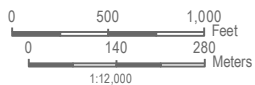


FIGURE 3.10-1

Noise Measurement Locations

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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Transportation Noise

Roadways

Vehicular traffic along vicinity roadways is typically a primary contributor to the overall noise environment in any urban (or commonly rural) neighborhood.

Regulatory Setting

Federal Regulations

Federal Interagency Committee on Noise

Some guidance regarding the determination of a substantial permanent increase in ambient noise levels in the project vicinity above existing levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn}. Table 3.10-2 lists the significance criteria for an increase in ambient noise level, which is dependent upon the existing ambient noise level. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources and permanent non-transportation noise sources.

**Table 3.10-2
Measures of Substantial Increase for Community Noise Sources**

Ambient Noise Level Without Project (L _{dn})	Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by:
<60 dB	+ 5 dB or more
60-65 dB	+ 3 dB or more
>65 dB	+ 2 dB or more

Source: FICON 2000.

Federal Transit Administration and Federal Railroad Administration Standards

Although Federal Transit Administration (FTA) standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA *Transit Noise and Vibration Impact Assessment Manual* (May 2006; FTA 2006) are routinely used for projects proposed by local jurisdictions. The FTA and Federal Railroad Administration have

published guidelines for assessing the impacts of groundborne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inch/second peak particle velocity (PPV).

State Regulations

There are no applicable state noise regulations that pertain to the project.

Local Regulations

Sonoma County General Plan 2020

The Noise Element of the Sonoma County General Plan 2020 (Sonoma County 2012) provides goals and policies that are germane for consideration with regard to the proposed project, as provided below.

Noise Element Policies

The Noise Element of the Sonoma County General Plan 2020 establishes policies aimed at protecting noise-sensitive land uses from elevated noise generated by transportation and non-transportation sources. The following policies from the Noise Element are applicable to the proposed project (* denotes Mitigation Policy):

Policy NE-1a: Designate areas within Sonoma County as noise impacted if they are exposed to existing or projected exterior noise levels exceeding 60 dB L_{dn}, 60 dB CNEL, or the performance standards of Table NE-2.*

Policy NE-1c: Control non-transportation related noise from new projects. The total noise level resulting from new sources shall not exceed the standards in Table NE-2 as measured at the exterior property line of any adjacent noise sensitive land use. Limit exceptions to the following:

1. If the ambient noise level exceeds the standard in Table NE-2, adjust the standard to equal the ambient level, up to a maximum of 5 dBA above the standard, provided that no measurable increase (i.e., +/- 1.5 dBA) shall be allowed.
2. Reduce the applicable standards in Table NE-2 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises, such as pile drivers and dog barking at kennels.
3. Reduce the applicable standards in Table NE-2 by 5 decibels if the proposed use exceeds the ambient level by 10 or more decibels.

4. For short term noise sources which are permitted to operate no more than six days per year, such as concerts or race events, the allowable noise exposures shown in Table NE-2 may be increased by 5 dB. These events shall be subject to a noise management plan including provisions for maximum noise level limits, noise monitoring, complaint response and allowable hours of operation. The plan shall address potential cumulative noise impacts from all events in the area.
5. Noise levels may be measured at the location of the outdoor activity area of the noise sensitive land use, instead of the exterior property line of the adjacent noise sensitive land use where:
 - a. the property on which the noise sensitive use is located has already been substantially developed pursuant to its existing zoning, and
 - b. there is available open land on those noise sensitive lands for noise attenuation.

This exception may not be used on vacant properties which are zoned to allow noise sensitive uses.*

Table 3.10-3
Maximum Allowable Exterior Noise Exposures for Non-transportation Noise Sources
[Table NE-2 in Sonoma County General Plan 2020 Noise Element]

Hourly Noise Metric, dBA ¹	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (4 minutes 48 seconds in any hour)	60	55
L02 (72 seconds in any hour)	65	60

Note:

¹ The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level. The L02 is the sound level exceeded 1 minute in any hour.

Policy NE-1f: Require development projects that do not include or affect residential uses or other noise sensitive uses to include noise mitigation measures where necessary to maintain noise levels compatible with activities planned for the project site and vicinity.

Policy NE-1m: Consider requiring the monitoring of noise levels for discretionary projects to determine if noise levels are in compliance with required standards. The cost of monitoring shall be the responsibility of the applicant.*

Impacts

Methods of Analysis

Short-term construction noise from the proposed project was assessed using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2008). For operational noise, project-

generated trips were compared against existing and build-out horizon year roadway traffic volumes (average daily trips, or ADT) to determine relative noise increases. Additionally, parking lot noise levels were assessed based upon data for similar parking lot operations, to determine impacts from parking lot activities related to the operation of the project.

Construction Equipment Noise Background

The FHWA Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land uses. Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage time during a given period the equipment operates), and the distance between the construction activity and noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling, and therefore identified sound levels from construction activities are considered conservative (i.e., if structures or topography is present between construction activity and receivers, noise levels would be lower than indicated in this conservative analysis). The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.10-4, Construction Equipment Maximum Noise Levels. Note that the equipment noise levels presented in Table 3.10-4 are maximum noise levels. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of the construction activities during that time. The Acoustical Use Factor shows the percentage of time a piece of equipment is expected to be used.

**Table 3.10-4
Construction Equipment Noise Levels**

Equipment Description	Acoustical Use Factor (%)	Measured L_{max} @50 feet (dBA, slow)
Backhoe	40	78
Compactor (ground)	20	83
Compressor (air)	40	78
Crane	16	81
Dozer	40	82

**Table 3.10-4
Construction Equipment Noise Levels**

Equipment Description	Acoustical Use Factor (%)	Measured L _{max} @50 feet (dBA, slow)
Dump Truck	40	76
Flat Bed Truck	40	74
Paver	50	77
Pickup Truck	40	75
Pneumatic Tools	50	85
Roller	20	80
Warning Horn	5	83

Source: DOT 2006.

The maximum noise levels at 50 feet for typical equipment would range up to 85 dB for the assumed construction equipment. The hourly noise levels would be expected to be lower since construction equipment operates in alternating cycles of full power and low power. Construction noise in a well-defined area typically attenuates at approximately 6 dB per doubling of distance, consistent with the rules applied for a point source with hard site conditions.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generate excessive groundborne vibration or groundborne noise levels.
- Expose people residing or working in the project area to excessive noise levels (for a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport).

Significance Criteria Not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable to the proposed project and therefore, are not considered potential impacts. These thresholds are addressed briefly below but are not discussed further in this document.

The primary source of groundborne vibration occurring as part of this project would be construction activity, because no major vibration-generating sources would be introduced as part of project operation. The grading and construction activities on the project site would have no potential to expose

adjacent off-site receptors to groundborne vibration, because construction activities would take place well beyond 200 feet from the closest off-site receptors. Impacts related to excessive groundborne vibration would be significant if the project results in the exposure of persons to or generation of excessive groundborne vibration equal to or in excess of 0.2 inches/second PPV. As a guide, major construction activity within 200 feet and pile driving within 600 feet may be potentially disruptive to sensitive operations (Caltrans 2002). No pile driving or blasting would be required for project development. The amount of groundborne vibration associated with construction would be minimal and due to the distance to the closest receptors would not be perceptible. Therefore, there would be no groundborne vibration impact and this issue is not further evaluated.

The project site is not located within an airport land use plan, nor is the project site within the vicinity of a private airstrip. The nearest public airport is the Petaluma Municipal Airport, located approximately 7.5 miles to the south. Therefore, the project would not expose people accessing the project site to excessive noise levels from airplanes and there would be no impact. Thus, this issue is not further evaluated.

Project Impacts and Mitigation Measures

3.10-1: The proposed project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in excess of County standards. This would be a less-than-significant impact.

Construction Noise

Construction of the proposed project would generate noise that could expose nearby receptors to elevated noise levels. The magnitude of the impact would depend on the type of construction activity, equipment employed, duration of the construction, distance between the noise source and receiver, and presence or absence of intervening structures.

It is anticipated that construction of the proposed project would take approximately 3 to 4 years. Equipment that would be in operation during construction would include small bulldozers, backhoes, trucks, a crane (for replacing the bridge), and a roller.

Table 3.10-5 provides a summary of the assumed construction equipment used for the different phases of construction.

**Table 3.10-5
Construction Scenario Assumptions**

Construction Phase	Equipment		
	Equipment Type	Quantity	Usage Hours
<i>West Trail</i>			
Site Preparation (clearing and grubbing)	Backhoe	1	8
	Small bulldozer (crawler tractor)	1	8

**Table 3.10-5
Construction Scenario Assumptions**

Construction Phase	Equipment		
	Equipment Type	Quantity	Usage Hours
Grading	Backhoe	1	8
	Small bulldozer (crawler tractor)	1	8
Installation of wet crossings/foot bridges	N/A	N/A	N/A
Paving (gravel/concrete parking lots)	Roller	1	8
	Small bulldozer (crawler tractor)	1	8
Finish Work (i.e. signage, fencing, seating, etc)	N/A	N/A	N/A
<i>East Trail</i>			
Site Preparation (clearing and grubbing)	Backhoe	1	8
	Small bulldozer (crawler tractor)	1	8
Grading	Backhoe	1	8
	Small bulldozer (crawler tractor)	1	8
Installation of wet crossings/foot bridges	N/A	N/A	N/A
Building Construction (Estero Americano access bridge)	Crane	1	8
	Pumping equipment	1	8
Paving (gravel/concrete parking lots)	Roller	1	8
	Small bulldozer (crawler tractor)	1	8
Finish Work (i.e. signage, fencing, seating, etc)	N/A	N/A	N/A
<i>Other Improvements</i>			
Grading	Backhoe	1	8
	Small bulldozer (crawler tractor)	1	8
Building Construction (access road bridge)	Boom truck	1	8
	Pumping equipment	1	8
	Crane	1	8
Paving (gravel road/asphalt bridge)	Roller	1	8
	Small bulldozer (crawler tractor)	1	8
Finish Work (i.e. signage, fencing, seating, etc.)	N/A	N/A	N/A

Source: Dudek 2018.

Construction would take place approximately 350 feet from the Sonoma Coast Villa Resort & Spa (Resort & Spa), 750 feet from the nearest residences located to the east, and about 835 feet from the nearest residence to the west. Other receptors are located farther away, approximately 1,000 feet from proposed construction areas. Typical construction efforts would average 1,000 feet from the Resort & Spa and adjacent residences.

Using the FHWA RCNM construction noise model and construction information identified in Table 3.10-5, the estimated noise levels from construction were calculated for representative receivers, as presented in Table 3.10-6, Construction Noise Model Results Summary. The receiver distances selected for the analysis include the distance from a particular construction area to the closest noise sensitive use, and the average construction distance any construction activity to the closest sensitive receptor. The RCNM inputs and outputs are provided in Appendix F.

**Table 3.10-6
Construction Noise Modeling Summary Results**

Construction Phase	L _{eq} (dBA)	
	Nearest Receiver	Typical Receiver
West Trail	(Approximately 835')	(Approximately 1000')
Grading	53	55
Paving	55	55
Site Preparation	53	55
East Trail	(Approximately 750')	(Approximately 1000')
Access Bridge Construction	56	53
Grading	56	53
Paving	55	53
Site Preparation	56	53
Other Improvements	(Approximately 350')	(Approximately 1000')
Access Road Bridge Construction	63	54
Grading	62	53
Paving	62	53

Note: L_{eq} = equivalent continuous sound level; dBA = A-weighted decibels

Source: Dudek 2018.

As presented in Table 3.10-6, construction noise levels are expected to be greatest during the Other Improvements Phase, focused on the staging/parking lot area; at the nearest existing receptors, approximately 350 feet to the north, construction noise levels are estimated to be about 63 dBA L_{eq}. The other phases of construction have predicted noise levels that are generally similar with a variation of just 3 dB. These are relatively low levels for construction noise at vicinity receivers, because of the distance between construction and the nearest noise-sensitive land uses.

Construction noise is the only temporary increase in ambient noise that the project could produce. No substantial periodic increases in noise are expected due to project operation, as neither periodic trail use nor parking lot activities have been shown to generate noise levels at sensitive receptors which are above ambient levels. The project's construction noise levels are not substantially greater than the ambient noise levels measured in the site vicinity. As a temporary effect, construction noise is not expected to exceed the County's Maximum Allowable Exterior Noise Exposures for Non-Transportation Noise Sources, shown in Table 3.10-3 for extended periods of time. Large distances between proposed construction areas and the closest noise-sensitive receptors, usually hundreds of feet, would reduce construction-related noise. Based on the relatively low levels of construction noise identified for nearby receivers, and the temporary nature of the construction, the construction noise impacts would be **less than significant**.

Operational Noise

The primary permanent noise-related effect that most projects produce is a potential for on-site and off-site increases in traffic, which is the main source of noise in most urban and rural areas.

Section 3.13, Transportation and Circulation includes existing and future traffic data for SR 1. Weekday existing traffic volumes indicated for SR 1 are 5,200 average daily trips (ADT) with a peak hour volume of 465 vehicles, while the existing weekend traffic volume is 7,350 ADT with a midday peak hour volume of 705 vehicles. As noted in Section 3.13, a 20-year growth factor of 1.25 was assumed. This would equate to a 1.1% per year increase in traffic which is typical for a number of roads in the County.

The traffic analysis expects a 25% increase in traffic over the next 20 years. SR 1 would be expected to carry 582 vehicles per hour during the p.m. peak hour, 994 vehicles per hour during the weekend midday peak hour and an average of 6,480 vehicles per day in the project area by year 2038. A doubling (or 100% increase) of traffic is known to increase traffic noise levels by 3 dB. Therefore, traffic noise levels in the next 20 years are expected to increase by less than 3 dB.

The proposed project would be expected to generate 26 weekday p.m. peak hour trips and 43 weekend midday peak hour trips. When these project trips are compared to the existing peak hour traffic on SR-1, the project increases traffic by about 6%. When project trips are compared with future traffic the increase in trips is between 4 to 5%. This low percentage increase in traffic due to the project is not near the doubling in trips necessary to produce a 3 dB increase in traffic noise. The actual increase in noise levels would likely be about 1 dB or less.

This increase in traffic noise is compared to the FICON thresholds for noise increase (i.e., a 5 dBA increase in an ambient noise environment of less than 60 dBA L_{dn} and a 3 dBA noise increase in an ambient noise environment of 60 to 65 dBA L_{dn}) to assess whether project traffic noise would cause a significant impact. Since the expected traffic noise increase is less than 3 dB, the proposed project would not result in significant increase in noise levels in the project vicinity.

Noise sources from parking lots include car alarms, door slams, radios, and tire squeals. A noise assessment for the Historic Town Center in the City of San Juan Capistrano provides typical noise levels for different parking lot events. This source indicates that Car Door Slams and Engine Start-Ups usually are 60 to 70 dBA at 50 feet, Car Alarm noise is between 65 and 70 dBA at 50 feet, and Car Pass-Bys range from 55 to 70 dBA at 50 feet. (Mestre Greve 2011). These sources generally short-term and intermittent.

Significant distance separates the proposed staging or parking lot areas and the nearest noise sensitive land uses. Over 20 dB of attenuation would be expected from geometric spreading between the parking lot and the nearest noise sensitive receptors at 1,000 feet away. This would reduce the highest parking lot noises to about 50 dBA at the closest noise sensitive receptors. This level is similar to the existing ambient sound levels in the vicinity. Since the parking lot activities would be intermittent and last for a short period of time, these activities are not expected to increase the existing ambient noise levels. Use of the trail would involve people

walking on the paths and potentially talking. Given the large distance between the trails and the noise sensitive receptors, people walking and talking during hiking would not generate readily noticeable noise levels at the existing noise-sensitive receivers in the project vicinity. Therefore, noise generated from traffic, parking lots and trail usage would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context for noise is future development within the western portion of Sonoma County.

3.10-2: The proposed project would not contribute to cumulative impacts with respect to noise. The project's contribution would not be considerable.

There are no known cumulative noise issues in the project vicinity based on the County's General Plan 2020 EIR (Sonoma County 2006). This area of the County supports minimal development and does not contain any uses or activities that contribute to high levels of noise. The analysis of roadway noise considers the cumulative noise scenario resulting from traffic in the vicinity of the project site, which is considered the greatest potential noise source in the area. As described in the impact discussion above, the proposed project would not result in any significant noise impacts during project operation. With no significant noise from operation and no known significant noise impacts in the project vicinity, the project would not contribute to an existing long-term (permanent) cumulative noise impact. There are also no identified future development projects within ¼ mile of the project site that are anticipated to be constructed simultaneously with the project. Thus, there is no potential for construction noise associated with the project to combine with other project construction noise. Thus, the proposed project would not result in a cumulatively considerable short-term or long-term noise impact and the cumulative impact is less than significant.

Mitigation Measures

No mitigation measures are required.

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3.11 Public Services and Safety

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential public services and safety impacts of the proposed Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). This section evaluates potential impacts to service providers, specifically the ability of fire and police/sheriff protection and ambulance service to access the site in the event of an emergency. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

Comments received in response to the Notice of Preparation (NOP) noted the lack of site access and limited cellular reception, increasing the difficulty for adequate response time in the event of an emergency. Comments received also stressed the danger of wildfires to the public and agricultural operations and the limited breadth of fire protection services in the area. The Sonoma County Farm Bureau (SCFB) raised concerns regarding the potential for public trail users to trespass onto adjacent private property and possibly commit theft, vandalism, and burglary, although not under the purview of CEQA a discussion of these concerns is included for informational purposes. Other issues raised by the SCFB included how law enforcement personnel would patrol trails to prevent trespass and crime on adjacent properties and how hours of operation and other on-site rules would be enforced. Comments were also received regarding emergency access to the project site. This issue is discussed in Section 3.13, Transportation and Circulation. Environmental effects associated with recreation services, such as parks, are evaluated in Section 3.12. All other concerns raised are addressed in this section. Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included concerns with the overall increase in public visitation and potential for an increase in calls for emergency services and generation of litter. Several comment letters expressed concern regarding the remote location and the extended response time for emergency services, particularly for fire and sheriff. Illegal campfires and the potential for wildfires were also concerns raised. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

This section describes the existing public services that could be affected by the proposed project, including fire protection services, sheriff services, and ambulance access. In addition,

the potential for an increase in litter and maintenance activities will also be evaluated. Parks and recreational facilities are discussed in Section 3.12, Recreation.

The Bordessa Ranch property, including the Trail Easement area is currently an active cattle ranch with breeding livestock. Cattle use the property for grazing and are present throughout the site.

Fire Protection

The project site, including the Bordessa Ranch property and unincorporated lands within the project vicinity, is within a California Department of Forestry and Fire Protection (CAL FIRE) State Responsibility Area (SRA) (CAL FIRE 2007). Within SRA's, CAL FIRE has the responsibility for providing fire suppression and prevention services during the event of a wildfire. CAL FIRE is divided into 21 operational units that serve a designated region of the state. The CAL FIRE Sonoma-Lake-Napa Unit provides fire protection to the counties of Sonoma, Lake, Napa, Solano, Yolo and Colusa, including the project site. The Unit contains five divisions and ten field battalions, with the West Division serving Sonoma County (CAL FIRE 2017). The main causes of fire within the Unit include debris burning, vehicles, and down power lines (Fire Safe Sonoma 2016). The Unit's 2017 Fire Management Plan states that the primary fire fuel types within the Unit's service area are grass/oak woodland, chaparral, and mixed conifer forest. The County is served by approximately 115 CAL FIRE staff during the fire season and approximately 50 staff during the non-fire season (Fire Safe Sonoma 2016).

The West Division is comprised of four field battalions. The Division's main office is located in the City of Santa Rosa at 2210 West College Avenue, approximately 13 miles northeast of the project site. The West Division contains the Sonoma Air Attack Base, and nine fire stations with 14 engines and two dozers in total. Within the Santa Rosa Battalion (Battalion 1410), the battalion in which the project site is located, there are three engines, two in the City of Santa Rosa and one in the town of Occidental. The nearest fire station is located in the town of Occidental, approximately 5.5 miles north of the project site (CAL FIRE 2017). Battalion 1410 serves an area of 274,189 acres, a population of 274,700 and consists of 15 fire agencies (Fire Safe Sonoma 2016).

Local fire departments have the initial responsibility to respond to fire, medical, and other emergency incidents during the majority of the year. There are 41 local fire agencies, comprised of Fire Protection Districts (FPD's) and Community Service Districts (CSD's), six municipal fire departments, and 13 Volunteer Fire Companies (VFC's) within Sonoma County. The Sonoma County Fire and Emergency Services Department (SCFESD) oversees emergency and non-emergency services in the County, including fire suppression and prevention, hazardous materials incidents, and medical and emergency response. VFC's within the County are supported by over 200 volunteer first responders and firefighters, who respond to more than

1,000 calls each year. VFC's help support unincorporated areas of the County that are within SRA's (Fire Safe Sonoma 2016). The Bodega VFC, Bodega Bay FPD, Valley Ford Volunteer Fire Department (VFD), Occidental VFD, and Gold Ridge FPD would be the primary responders in the event of a fire or emergency incident. These agencies are trained in off-road, cliff, beach, and water rescue (Reese pers. comm. 2018).

The Valley Ford VFD is located approximately 2.3 miles southeast of the project site, and the Bodega VFC is located approximately 1.3 miles northwest of the site. The Bodega VFC covers an immediate response area of 16 square miles with a population of 1,080 and is served by 15 volunteers, two firefighting engines, one water truck, a utility vehicle with medical equipment and support supplies, and a Utility Terrain Vehicle (UTV) (Bodega Fire Department 2018a,b). The UTV is able to access and mitigate fires in rural areas, including rural ranches and trails in western Sonoma County and areas around the Estero (Bodega Fire Department 2018b). The average response time to the project site for fire and emergency calls is approximately 7 minutes (Reese, pers. comm. 2018). The project site is a dual response area for the well-staffed Bodega VFC and the Bodega Bay FPD, which is a paid department with an Advanced Life Support (ALS) ambulance and a backup ambulance. Furthermore, in the event that it is needed, local, California Highway Patrol and Coast Guard air ambulance and air rescue resources are available (Reese pers. comm. 2018).

Most of the County is served by volunteer or combination (volunteer and paid) fire departments. Both paid and volunteer fire department staff must satisfy the same training requirements and responsibilities, including response to medical emergencies, structure and wildland fires, vehicle crashes, hazardous materials incidents, and safety issues. Volunteer fire department staff often respond to calls from wherever they are, and this may add to response times as volunteers first have to travel to the firehouse to obtain equipment, then to the incident location (Fire Safe Sonoma 2016).

Emergency 911 calls within the County are routed through the REDCOM Fire & EMS Dispatch Center, which centralizes dispatching for over 40 emergency response agencies in the County. REDCOM Dispatch Center call-takers are trained to instruct bystanders in life-saving care procedures before first responders arrive. For serious emergencies, call-takers stay on the line with callers and patients until responders arrive. REDCOM's dispatch system can locate vehicles equipped with Automatic Vehicle Location to dispatch the closest and most appropriate resource for the emergency (REDCOM Dispatch 2018).

CAL FIRE possesses numerous automatic aid agreements and mutual threat zones with local fire agencies in the County, including the Santa Rosa Fire Department, Occidental CSD, and Rancho Adobe FPD. Local agencies hold the primary responsibility for fire response during the non-wildfire season, while CAL FIRE manages wildfires within the SRA (Fire Safe Sonoma 2016).

Emergency Medical Services

Emergency medical services (EMS) within the County are provided by first responder agencies, ground and air ambulance providers, the REDCOM Fire & EMS Dispatch Center, and eight acute care hospitals. Ambulances are provided by an Exclusive Operating Area (EOA) ambulance franchise, assessment district ambulance providers, fire department based ambulance providers, private ambulance providers, a private helicopter ambulance service, and a law enforcement based ALS rescue helicopter. Emergency calls are routed to the central REDCOM Dispatch Center, which dispatches ambulance services to the project area (Sonoma County 2006).

Law Enforcement Services

Patrol services within unincorporated Sonoma County are provided by the Sonoma County Sheriff's Office (SCSO). The Patrol Bureau (Bureau) of the SCSO provides law enforcement and crime prevention services within the unincorporated area of Sonoma County. The Bureau contains approximately 140 deputies that work during assigned shifts to patrol designated areas of the County. Deputy Sheriffs conduct preliminary criminal investigations, make arrests, issue citations, and respond to emergency calls (SCSO 2015a). The majority of Bureau deputies operate out of the main SCSO office located at 2796 Ventura Avenue in Santa Rosa, and remaining deputies are assigned to one of the two sub-stations that are located at the intersection of 1st Street and Church Street in Guerneville, approximately 12.2 miles north of the project site, and at 810 Grove Street in Sonoma Valley, approximately 26.3 miles east of the project site. Furthermore, three resident deputies are located along the Sonoma coastline (SCSO 2015a). According to the Sonoma County General Plan 2020 Draft EIR, the SCSO had a service ratio of approximately 1.01 officers per 1,000 residents in 2003. The General Plan EIR stated that the SCSO plans to hire two deputies per year between 2003 and 2020, to obtain a total of approximately 230 deputies by 2020 (Sonoma County 2006). This would increase the service ratio to 1.19 deputies per 1,000 residents by 2020.

The project site is located within Zone 1 of the SCSO service area, which covers about 446 square miles (SCSO 2013). This zone is staffed from the Guerneville substation and includes the entire 63 miles of Sonoma coastline to the west and to Forestville in the east (SCSO 2015a). Zone 1 is served by two Sergeants, sixteen Deputy Sheriffs, three Resident Deputy Sheriffs (who live on the coast in their respective beats), and one Community Services Officer. Resident Deputies live along the coast in the communities of Bodega Bay, Timber Cove, and Sea Ranch (SCSO 2015a).

Dispatch events are divided into three categories: (1) Priority 1 calls, which require immediate and urgent response, (2) calls for service, which are less urgent, and (3) deputy initiated events,

such as traffic stops. During the 18 month period from January 1, 2017 through June 30, 2018, the median response time for the 21 Priority 1 calls received by the SCSO was 34 minutes, 42 seconds (Harris, pers. comm. 2018).

The SCSO Crime Analyst provided average response times and number of Priority 1 calls for nearby County parks with similar characteristics as the proposed project over the same 18 month period. Average response times were only based on Priority 1 calls. No Priority 1 calls were received from the Shorttail Gulch Coastal Access Trail, a 0.5-mile trail which leads to a small beach in Bodega Bay, located approximately 1.7 miles west of the project site. One non-Priority 1 event occurred at this location over the 18 month period. Doran Regional Park, a 127-acre regional park containing a wide, 2-mile stretch of beach, extensive hiking trails, campgrounds, and a boat launch to access Bodega Harbor and Bodega Bay was associated with one Priority 1 call and 150 non-Priority 1 events over the 18 month period. The response time for the Priority 1 call was 27 minutes and 9 seconds. Furthermore, Westside Regional Park, a regional park with approximately 50 campsites and a boat and kayak launch located approximately 5 miles west of the project site, received no Priority 1 calls and 24 non-Priority 1 events over the aforementioned time period. On average, the SCSO receives approximately 46,000-51,000 calls for service per year (Harris pers. comm. 2018).

Regulatory Setting

Federal Regulations

There are no federal regulations regarding the provision of local services.

State Regulations

The following state regulations pertaining to public services would apply to the proposed project. There are no state regulations pertaining to law enforcement services.

Fire Protection

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Department of Forestry and Fire Protection

CAL FIRE offers fire protection services for SRAs and local jurisdictions with contracts with CAL FIRE. CAL FIRE also aids local fire departments by providing wildfire abatement services for their jurisdictions through mutual and automatic aid agreements. CAL FIRE also endorses state-legislated fire safety standards, supports fuel management efforts, and implements fire-safety inspections to further its objectives. CAL FIRE is responsible by law for responding to uncontrolled fire that has the capability for destruction of life, property or natural resources. The project site is located within unincorporated Sonoma County in a SRA. Therefore, the project site is also served by CAL FIRE.

Local Regulations

The following local/regional regulations pertaining to public services would apply to the proposed project.

Sonoma County General Plan 2020

The Public Facilities and Services Element (Sonoma County 2016) and Public Safety Element of the Sonoma County General Plan (Sonoma County 2014) provide objectives, policies, and programs regarding Public Services, including the following:

Goal PF-2: Assure that park and recreation, public education, fire suppression and emergency medical, and solid waste services, and public utility sites are available to the meet future needs of Sonoma County residents.

Policy PF-2g: Require dedication of land or in-lieu fees as a means of funding park and fire services and facilities.

Policy PF-2n: Require prior to discretionary project approval written certification that fire and related services customarily provided to comparable uses are available or will be available prior to occupancy for projects within the service area of the applicable fire agency.

Goal PS-3: Prevent unnecessary exposure of people and property to risks of damage or injury from wildland and structural fires.

Policy PS-3b: Consider the severity of natural fire hazards, potential damage from wildland and structural fires, adequacy of fire protection and mitigation measures consistent with the Public Safety Element in the review of projects.

Policy PS-3d: Refer projects and code revisions to the County Department of Fire and Emergency Services and responsible fire protection agencies for their review and comment.

Strategic Fire Plan Sonoma-Lake-Napa Unit

The CAL FIRE Strategic Fire Plan Sonoma-Lake-Napa Unit, last updated in 2017, was developed to identify high-risk and high-value areas within the six counties of Sonoma, Lake, Napa, Solano, Yolo, and Colusa to better plan for wildfire hazards within these areas (CAL FIRE 2017). The plan identifies assets at risk, vegetation fuel hazards, fire history, and the frequency of severe fire weather, and includes an ignition workload assessment and management prioritization. The plan identifies specific projects for each Battalion within the unit to reduce fire hazards within their management area. CAL FIRE Battalion 1410, which serves the project site, currently distributes mailers to 100-200 residences per year regarding fuel reduction methods, followed by inspections as needed. Future projects within this Battalion are intended to focus on areas identified as high risk/high hazard. The unit also treats available fuel inside the road/highway easement to improve safety for evacuation and emergency access.

Sonoma County Hazard Mitigation Plan Update

Sonoma County prepared its 2016 Hazard Mitigation Plan Update in accordance with Federal Emergency Management Agency's Local Hazard Mitigation Plan Guidelines (Sonoma County 2017). The plan identifies and prioritizes pre-disaster hazard mitigation, prevention and preparation actions. The plan also assesses the County's existing hazards, including seismic hazards, floods, wildland fires, and landslides. The plan sets forth specific mitigation actions for each jurisdiction to be implemented during the 2016-2021 cycle to reduce these potential hazards. Wildland fire mitigation actions described in the plan include the Sonoma County Fuel Reduction and Vegetation Management Program, which includes inspections of improved and unimproved properties in Sonoma County to identify high fire severity zones and reduce fire threats, the Sonoma County Roadside Chipper Program, which provides a free curbside chipper service to residents who reduce vegetation along access routes, and the CAL FIRE Fuels Reduction Program, which aims to reduce wildland fuel loadings that present a hazard to watershed resources and water quality.

Sonoma County Community Wildfire Protection Plan

The County's Community Wildfire Protection Plan (CWPP) intends to increase collaboration between stakeholders from federal, state, and local agencies and community groups to solve Wildland/Urban Interface wildland fire issues (Fire Safe Sonoma 2016). The CWPP identifies and prioritizes treatment areas, mitigation strategies, and treatments, and recommends measures to reduce the ignitability of structures. The CWPP is integrated with other plans such as the 2016 Sonoma County Hazard Mitigation Plan Update and the Sonoma-Lake-Napa Unit Fire Management Plan 2016 (described above). Projects included in the CWPP include programs or design concepts that improve the condition and health of fire-prone ecosystems, address fire-prone invasive plant species, and provide support and aid for fire agencies.

Sonoma County Fire Safe Standards

Chapter 13 of the Sonoma County Municipal Code adopts the California Fire Code and establishes minimum fire safe standards for development within the unincorporated area of the County. The County Fire Safe Standards ensure that all new development within the unincorporated County has a basic level of fire protection. Standards incorporated into this ordinance include emergency access requirements, minimum emergency water supply and sprinkler requirements, and fuel modification and defensible space requirements. Chapter 13A, adopted in March 2016, requires removal of hazardous vegetation and combustible material from around the exterior of improvements. In order to assist in implementation of this requirement, the County established the Fuel Reduction and Vegetation Management Program to remove hazardous fuels in the most fire-prone areas in the unincorporated County. Chapter 13 also includes requirements for the widths of gate entrances to ensure adequate emergency access is provided. Requirements include all gates that provide access from a public road to a private road or driveway to be located at least thirty feet from the roadway and have the ability to open to allow a vehicle to stop without obstructing traffic on the roadway. The ordinance also requires that all roads and driveways have a flammable vegetation clearance area on each side of the road or driveway of not less than ten feet, unless otherwise authorized. Flammable vegetation abatement measures would be required if vegetation on the project site is determined by the County to present a fire hazard that may endanger or damage neighboring property. These measures include removing flammable, dead, and dying vegetation and other combustible growth within ten feet of neighboring structures and roadway frontage, trimming grass and combustible surface vegetation within ten feet of neighboring structures and roadway frontage to less than four inches in height, and pruning all trees within ten feet of neighboring structures and roadway frontage to at least six feet above grade.

Impacts

Methods of Analysis

The impact analysis evaluates the ability of CAL FIRE, SCFESD and SCSO to provide fire protection and law enforcement services to the project site through a qualitative review of project characteristics, such as location, land uses, access routes, and availability of services.

The proposed project would construct two pedestrian-only trails and two associated staging areas (trailheads/parking lots) not to exceed 1.5 acres in size in total combined area within the designated Trail Easement on property located within unincorporated Sonoma County.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- 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 any of the public services:
 - Fire protection
 - Police protection
 - Schools
 - Other public facilities

Significance Criteria Not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable to the proposed project and therefore, are not considered potential impacts. These thresholds are addressed briefly below and are not discussed further in this document.

The proposed project would not include any residential uses and would not result in a population increase that would require new schools or other public facilities or services to serve new County residents. For this reason, no impacts to schools or other public facilities would occur with development of the proposed project and this issue is not further addressed.

Concerns Raised Not Under the Purview of CEQA

This EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the proposed project. CEQA allows agencies and members of the public an opportunity to identify relevant environmental issues to be further evaluated in an EIR during the 30-day NOP public comment period. Comments received from the public raised concerns regarding generation of litter, trespassing onto adjacent private property, vandalism, and burglary along with future maintenance activities on the project site. Although these issues are not included in Appendix G of the CEQA Guidelines and the County has no adopted thresholds to evaluate these concerns, a discussion of these issues is included for informational purposes.

The project includes animal-proof trash and recycling containers within the staging areas that would be disposed of on a weekly basis, unless more frequent removal is required. In addition,

Regional Park Rangers would patrol the trails and staging areas periodically and would remove any trash. Because the Park Rangers would be accessing the site on a daily basis to open/close the gate and to conduct periodic patrol of the trails, it is not anticipated litter would be an issue. However, if litter becomes a problem the County may require a Ranger be present during peak times to monitor the area and to remind visitors to properly dispose of all trash.

Project Impacts and Mitigation Measures

3.11-1: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the need for new or physically altered fire protection or law enforcement facilities in order to maintain acceptable service ratios and response times. This is a less-than-significant impact.

Fire Protection

The Bordessa Ranch property is currently undeveloped and used as grazing land for cattle. The proposed project includes construction of two pedestrian-only trails with associated staging/parking lots within a designated Trail Easement that would allow for low-intensity public access to pursue outdoor, recreational, and educational uses. The project would also allow access to the Estero for hikers and hand-carried, non-motorized boats, such as kayaks and canoes. The project does not include the construction of new buildings or uses that would house either a permanent population or on-site employees.

The project would result in an increase in the number of people using the project site for low-intensity recreational and environmental education uses. It is anticipated trail users could include local school groups using the area for educational field trips, college and graduate school scientific research, day hikers, birders, kayak and canoe enthusiasts accessing the Estero, and other passive activities. However, the increase in people accessing the area could result in more emergency response calls and the potential for illegal campfires. The trails would be open daily from sunrise to sunset and a County Regional Park (Regional Park) Ranger would unlock and lock the gate on a daily basis. No overnight camping would be permitted. Signs noting allowable activities and the rules for access would be provided in the staging/parking areas and at the trailheads. Regional Parks Rangers would also conduct periodic patrol of the trails and parking areas. Regional Parks would coordinate with local law enforcement in the event of any illegal activities and the SCFESD in the event of a fire. In the event of an emergency the first responder would be the Valley Ford VFC or Bodega VFC. As described above, the Valley Ford VFC is located approximately 2.3 miles southeast of the project site, and the Bodega VFC is located approximately 1.3 miles northwest of the site. Both fire companies are trained in backcountry rescue and routinely respond to fires, vehicle accidents, hazardous materials, hazardous conditions, and medical incidents (Reese, pers. comm. 2018). Emergency

vehicles would be able to access the site via the main access road off SR 1 and park in one of the two parking areas. As stated above, the average response time for fire or EMS calls to the project site is 7 minutes. The Bodega VFC is well-staffed and well-equipped to respond to a fire or EMS event. In addition, the project site is located within a dual response area for the Bodega VFC and the Bodega Bay FPD, which is a paid department with an ALS ambulance (Reese, pers. comm. 2018). Furthermore, the increase in calls associated with trail activities is expected to be minimal and adequate staff and equipment are available to serve the project site. The SCFESD has indicated that adequate fire personnel is available to serve the project site and the expansion of existing facilities would not be required.

Another concern raised was the potential for an increase in wildfires to occur. CAL FIRE identifies Very High Fire Hazard Severity Zones throughout the state to help determine areas where fire hazard reduction measures are necessary to reduce the rate of fire spread and minimize the intensity of uncontrolled fire. The Very High Fire Hazard Severity Zone designations are based on vegetation density, slope severity, and population density, among other factors that contribute to fire hazards. CAL FIRE classifies lands within local responsibility areas, areas where local jurisdictions provide fire protection services, and SRA's. CAL FIRE does not have fire protection responsibility for densely populated areas, agricultural lands, or lands administered by the federal government. The project site is located within a SRA; therefore, CAL FIRE serves the site in addition to the SCFESD. Based on information provided by CAL FIRE, the site is located in an area designated as a moderate Fire Hazard Severity Zone (CAL FIRE 2007). There are no Very High Fire Hazard Severity Zones designated near the project site. Fire suppression services would continue to be provided by CAL FIRE and the SCFESD.

The Sonoma County Farm Bureau raised concerns in response to the County's Draft Outdoor Recreation Plan that trail users may build campfires or produce increased fire hazards that could spread to adjacent land, that many proposed trails are within areas of high fire hazard, and requested information about what measures could be undertaken to prevent fires from spreading onto adjacent land (Sonoma County 2003). The Sonoma County General Plan 2020 includes several goals and policies to curb the potential for wildland fire to occur, such as Policy PS-3a, which requires the County to use available information to reduce wildland and structural fire hazards and Policy PS-3b, which requires the County to consider the severity of natural fire hazards, and adequacy of fire protection and mitigation measures to reduce the potential for wildland fires in the review of new projects (Sonoma County 2016). In addition to the General Plan, the County uses several other planning documents that include policies and measures to reduce and respond to wildlife threats in the County. These include the Sonoma Lake Napa Unit Fire Management Plan, which guides fire management within the County's State Responsibility Area, the Sonoma County Hazard Mitigation Plan, which proposes priority action items to mitigate wildfire hazards, the Vision 2020 County Strategic Fire Plan, which includes recommended actions for improving and maintaining fire response services, and the Sonoma

County Community Wildfire Protection Plan, which identifies existing fuel loads and wildland/urban interface hazard areas, and recommends measures to reduce wildland fire hazards within the County. As stated in the General Plan, wildland fire hazards can be reduced by vegetation management, installation of water systems, and participation in the Sonoma County Community Wildfire Protection Plan. Furthermore, the Sonoma County Fire Safety Ordinance provides standards for new development within unincorporated areas of the County in order to ensure that these areas have adequate emergency access, emergency water supply, fuel modification and defensible space, sprinklers, and are able to be easily located in an emergency. The Fire Safety Ordinance is primarily focused on new development, but some aspects are applicable to a trail project. The Regional Parks Department adheres to all of these requirements when designing projects, including trails that would be adjacent to private land (Sonoma County 2003).

The proposed project does not include adding new buildings or residents and based on information provided by the SCFESD the existing firefighters and emergency personnel could serve the site and would not require an expansion of an existing fire station or the construction of a new one. For these reasons, the project would result in **a less-than-significant impact** on County fire protection services.

Law Enforcement Services

The project site is currently undeveloped and requires minimal law enforcement services from the SCSO at present. The proposed project would increase demand for law enforcement services by providing recreational uses that would increase visitor use of the site. The nearest Sheriff's station to the project site is located at the intersection of 1st Street and Church Street in Guerneville, approximately 12.2 miles to the north (SCSO 2015b).

Operating hours for public use of the trails would be sunrise to sunset seven days a week, including seasonal access to the Estero for recreational uses such as kayaking and canoeing and other such uses similar in nature and intensity. The access road would provide vehicle access to the parking areas and trail system in the event law enforcement is needed. Based on information provided by the SCSO, between January 1, 2017 and June 30, 2018, the median response time for the Priority 1 calls received by the SCSO from the project area was 34 minutes, 42 seconds (Harris, pers. comm. 2018). According to data provided by the SCSO on Priority 1 calls from nearby County Parks, parks similar to the proposed project received only one Priority 1 call in total during this same 18-month period. The only park within the project area that received a Priority 1 call during this period was Doran Regional Park, a 127-acre regional park approximately 3.6 miles west of the project site (Harris, pers. comm. 2018). This park is much larger than the proposed project and provides a variety of amenities including campgrounds that serve more people.

Maintenance of the trails and staging areas would be provided by Regional Parks. Regional Parks would be responsible for ensuring the trails are kept functional and safe. Regional Parks Rangers would conduct periodic patrol of the trails and parking areas and in the event a car is left in the parking lot when the main gate is closed the vehicle would be subject to a citation. In addition, the Park Ranger would do a foot patrol of the area to see if the vehicle owner can be located, which may include conducting a visual survey to see if it may be a kayaker in the Estero. The Park Ranger would also contact the Sheriff's Department to get information on the vehicle's owner which often includes a cell number. Additionally, Regional Parks would coordinate with local law enforcement in the event of any illegal activities.

In regards to trespass and criminal activity, the SCFB raised concerns about the potential for public trail users to trespass onto adjacent private property and possibly commit theft, vandalism, and burglary. Other issues raised by the SCFB included how law enforcement personnel would patrol trails to prevent trespass and crime on adjacent properties and how hours of operation and other on-site rules would be enforced. The County has previously conducted a "Neighbor Survey", which involved interviews of property owners adjacent to recreational areas, which identified common concerns and complaints. According to the survey, serious crimes such as trespassing and theft were not a major issue. Public safety and security is considered during the design process of Regional Parks projects. Overall, the benefits of nearby recreational facilities overrode the drawbacks for these residents (Sonoma County 2003).

The project site would be open to the public from sunrise to sunset seven days a week and would be patrolled by Regional Park Rangers regularly for maintenance and public safety. Regional Parks would be responsible for ensuring the trails are kept functional and safe. Regional Parks would also coordinate with local law enforcement in the event of any illegal activities, such as vandalism, trespassing, and poaching, and the County's Department of Emergency Services – Fire Prevention Division in the event of a fire. Lastly, several laws protect property owners from liability resulting from trespassing recreationists, such as Civil Code Section 846 and Public Resources Code Section 5075.5 (Sonoma County 2003).

The proposed project does not include adding new residents and based on information from the Sheriff's Department there is adequate capacity to serve the project and it would not require an expansion of an existing sheriff station or the construction of a new facility. For these reasons, the project would result in a **less-than-significant impact** on County law enforcement services.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The cumulative context for this analysis is the service areas for Battalion 1410, the SCFESD and SCSO for fire and law enforcement services. The service area for Battalion 1410 includes the 274,189-acre area between the Pacific Ocean and Mount St. Helena in Sonoma County. The service area for the SCFESD and SCSO includes the unincorporated area of Sonoma County.

3.11-2: The proposed project, when combined with other cumulative development, would not result in the cumulative contribution to any existing impacts associated with the provision of new or physically altered fire protection or law enforcement facilities in order to maintain acceptable service ratios and response times. The project's contribution would not be considerable.

The County's General Plan EIR identified cumulative impacts related to fire, EMS, and police protection services. These impacts are primarily related to projected population growth in the County associated with new development which would increase demand for public services. Furthermore, declining funding, increased costs, and lower volunteer availability might make existing fire protection and law enforcement and emergency services inadequate for future needs associated with buildout of the General Plan. In addition, more businesses and residences would be built in rural areas, increasing fire hazards within the County along with demand for fire prevention and suppression services in areas with longer response times, lack of sufficient water, heavy brush, substandard road systems, and other hazards. Law enforcement protection services would also be difficult to maintain due to an increase in population within the County, which would require expansion of existing facilities that have the potential to cause significant environmental impacts.

The proposed project involves the development of two trails and staging areas within an existing Trail Easement on a site currently used as an active cattle ranch. No buildings or structures are proposed on the site as part of the project. Therefore, the project would not generate a permanent increase in population within the County. However, as described previously, the proposed project would increase visitor use of the site for recreational activities such as hiking or kayaking. Any increase in calls for fire or police services is expected to be minimal due to the nature and size of the project. Furthermore, Regional Parks would be responsible for ensuring the trails are kept functional and safe. Therefore, the project's contribution would not result in a cumulatively considerable contribution to an existing cumulative impact and the impact is considered less than significant.

Mitigation Measures

No mitigation measures are required.

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3.12 Recreation

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) on recreational opportunities within the project vicinity. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

Comments received in response to the Notice of Preparation (NOP) expressed concerns with boat access to the Estero Americano (Estero) and members of the public straying from designated trails. Multiple commenters requested alternatives to or elimination of access to the Estero and the construction of “docks” to allow boat access. Comments received in response to the prior Mitigated Negative Declaration released in October 2016, included concerns associated with the close proximity of active agricultural uses and proposed recreational uses, including the potential damage to terrain, infrastructure, and livestock on these properties. Comments also indicated concerns regarding members of the public trespassing on surrounding private properties and the potential introduction of diseases and non-native plant species. These concerns are addressed in Sections 3.2, Agricultural Resources and 3.11, Public Services and Safety. The California Coastal Commission also recommended completing a Grazing Plan that would address these concerns. As explained in Chapter 2, Project Description, the Bordessa Ranch is under a Conservation Easement and is private land that would continue to be operated as a cattle ranch and used for cattle breeding and grazing. The Conservation Easement limits the use of the land in order to protect its conservation value and requires the landowners to prepare a rangeland management plan (RMP) that integrates natural resources protection goals with cattle grazing. Preparation of a RMP is not be within the scope of the County to prepare. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

This section describes the existing setting in the project area and also identifies the recreation facilities that could be affected by the proposed project.

Sonoma County Regional Parks (Regional Parks) oversees the development, operation, management and maintenance of parks and recreational facilities within the County. There are

over 50 parks and beaches within the County that are managed by Regional Parks (Sonoma County 2018a). These parks feature trails, sports fields, playgrounds, and campgrounds. The Sonoma County 2020 General Plan EIR states that, by 2020, approximately 8,190 acres of Regional Open Space Parks would be required to meet the demand rate of 15 acres of parkland per 1,000 people (Sonoma County 2006).

The closest existing park to the project site is Doran Regional Park, located approximately 4.7 miles west of the project site. Doran Park includes 2-miles of beach on Bodega Bay with a boat launch and rock jetty. The park also features campgrounds and connections to the Bird Walk Coastal Access Trail (Sonoma County 2018b). The project site is also located approximately 8 miles from several open space areas maintained by Regional Parks.

Existing Project Site

The elevation of the project site ranges from sea level at the Estero to about 400 feet at the highest knoll on the northwestern corner of the site. The topography is characterized as rolling hills with a central valley created by a drainage that drains into the Estero at the southern end of the site. The approximately 500-acre Bordessa Ranch property is currently used as grazing land for cattle and contains a large barn, agricultural workshop, a gravel/dirt access road, fencing, and miscellaneous water facilities. With the exception of the access road, fencing, barn and workshop, and water facilities, the remainder of the site is undeveloped. The Bordessa Ranch property is currently an active cattle ranch with breeding livestock. Cattle use the property for grazing and are present throughout the site. There are no existing recreational facilities on the site.

Regulatory Setting

Federal Regulations

There are no federal regulations related to the provision of recreational facilities.

State Regulations

California Coastal Act

The California Coastal Act became law in 1976 and is the primary law that governs decisions of the California Coastal Commission (CCC). The Coastal Zone of California encompasses 1.5 million acres of land that includes an inland boundary that ranges from several blocks in urban areas to as much as five miles inland in rural areas. The Coastal Act establishes basic goals of the state for the coastal zone including providing public access to and along the coast and public recreational opportunities in the coastal zone. The Coastal Act is supportive of providing recreational activities within the coastal zone.

Local Regulations

Sonoma County General Plan 2020

The Open Space and Resource Conservation Element and Public Facilities and Services Element of the Sonoma County General Plan 2020 (Sonoma County 2008a, 2016b) provide objectives, policies, and programs regarding recreational facilities, including the following:

Goal OSRC-17: Establish a countywide park and trail system that meets future recreational needs of the County's residents while protecting agricultural uses. The emphasis of the trail system should be near urban areas and on public lands.

Policy OSRC-17d: The trails on Figure OSRC-3 of the County's General Plan make up the County's designated plan for trails. Trail locations are approximate and are described below. Roadways may be used where access cannot be obtained through private property.

- Gualala River Waterway Trail. The Gualala River is a navigable waterway and, as such, public access is protected by Article XV, Section 2 of the California Constitution. The trail follows the river from the Sonoma/Mendocino County line to Stewart's Point Road.
- Sonoma Coast Trail. The trail extends from Black Point southward to the Estero Americano, is consistent with California State Coastal Plan Policy 145 that calls for establishment of a coastal trail system statewide.
- Russian River Waterway Trail. The Russian River is a navigable waterway from Cloverdale to the coast and as such, public access is protected by Article XV, Section 2 of the California Constitution. This proposed waterway trail extends from the coast to Preston Bridge immediately north of Cloverdale.
- Santa Rosa Creek Trail. The proposed Santa Rosa Creek Trail is located between Guerneville Road and Highway 101 and is owned in fee by the SCWA.
- Santa Rosa - Forestville Trail. The proposed trail primarily follows the abandoned right-of-way of the Petaluma and Santa Rosa Railroad from Highway 101 to Steelhead Beach.
- Gossage and Hinebaugh Creek Trail. The proposed trail follows a SCWA channel between Llano Road and Petaluma Hill Road. The trail further extends southward to the intersection of Stony Point Road and Highway 116. It is owned in fee by the Agency.
- Copeland Creek Trail. The proposed trail follows Copeland Creek and links Rohnert Park near Sonoma State University to Crane Creek Regional Park.
- Taylor Mountain Trail. The proposed trail connects the proposed Taylor Mountain County Park with Annadel State Park.

- Stevenson Trail. The trail was proposed by the California State Department of Parks and Recreation in 1958 to connect Robert Louis Stevenson Park and the Napa Valley.
- Hood Mountain Trail North. The proposed trail links Hood Mountain County Park to a 240 acre Bureau of Land Management holding to the east at the Sonoma/Napa county line.
- Hood Mountain - Annadel Trail. The proposed trail links Hood Mountain County Park to Annadel State Park. However, a crossing at Highway 12 will be necessary.
- Valley of the Moon Trail. The proposed trail traverses the Valley of the Moon between Jack London State Park and the Sonoma/Napa County line and links Sonoma Valley Regional Park to the Glen Ellen community.
- Sonoma Trail. The proposed trail follows the right-of-way of the Northwestern Railroad from the City of Sonoma to Highway 121/12.
- Petaluma River Waterway Trail. The Petaluma River is a navigable waterway and as such, public access is protected by Article XV, Section 2 of the California Constitution. The proposed trail extends from Shollenberger River Park to San Pablo Bay.

Classify potential trails as follows:

1. **Recreational Waterways.** Recognize boating and canoeing activities on designated waterways. Limit hiking trails to connections between urban areas, parks and the waterway.
2. **Hiking and Equestrian Trails.** Locate a trail system along the Sonoma County/Napa County boundary. Link existing and proposed State and County parks adjacent to urban areas.
3. **Multiple Use Trails.** Use railroad rights-of-way and water agency channels as multiple use trails for hiking, equestrian and bike use. Use existing roadways as alternative routes if access cannot be obtained.

Policy OSRC-17e: Encourage private organizations to assist in the construction and maintenance of trails.

Goal PF-2: Assure that park and recreation, public education, fire suppression and emergency medical, and solid waste services, and public utility sites are available to the meet future needs of Sonoma County residents.

Policy PF-2a: Plan, design, and construct park and recreation, fire and emergency medical, public education, and solid waste services and public utilities in accordance with projected growth, except as provided in Policy LU-4d.

Policy PF-2c: Use the following standards for determination of park needs: Twenty acres of regional parks per 1,000 residents countywide and five acres of local and community parks

per 1,000 residents in unincorporated areas. A portion of State parklands may be included to meet the standard for regional parks.

Policy PF-2i: Consider user fees in County park areas where special facilities are available. Offer discounts to County residents.

Impacts

Methods of Analysis

The project setting was developed by reviewing available information on recreational facilities in the project vicinity. Information regarding the County's existing parks, recreational facilities, and open spaces was reviewed.

The proposed project does not include new residences that would generate an increase in the City's population resulting in the need to develop new parks; therefore, the analysis includes a qualitative discussion of the adequacy of parks and recreation as it pertains to the project.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's General Plan, a significant impact would occur if development of the proposed project would do any of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Project Impacts and Mitigation Measures

3.12-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. This is a less-than-significant impact.

The proposed project includes construction of two 5-foot-wide pedestrian-only trails and two associated staging areas (trailheads/parking lots) within the Trail Easement on the approximately 500-acre Bordessa Ranch property in unincorporated Sonoma County. The West Trail would provide a 2.01-mile trail located on the western side of central creek traversing the property (see Figure 2-3 in Chapter 2). The East Trail would not exceed 2.75 miles in length and could be accessed from both the northern and southern staging areas (see Figure 2-4 in Chapter 2). Two staging or parking areas of 1.5 acres in total combined area would be

designated to accommodate parking for trail users. Trail amenities and features would include signage, wood benches placed along the trails, picnic tables at the staging areas, animal-proof trash and recycling containers at the staging areas, and portable toilets. No buildings or structures would be constructed as part of the project.

The project would provide for low-intensity public outdoor recreational and educational uses on the property consistent with the underlying Conservation Easement and Trail Easement. These uses include hiking, nature study, bird watching, sightseeing, picnicking, outdoor education, docent-led tours, scientific research and observation, and other similar uses. The project also includes seasonal access to the Estero for hikers and hand-carried, non-motorized boats, such as kayaks and canoes. Uses would be dispersed, nonexclusive, and non-motorized activities that do not adversely impact the natural resources or cattle grazing on the property. Within the two designated trail corridors, the five-foot wide trails would be constructed for pedestrian use only (no dogs, bikes, or equestrians would be allowed) and would be open seven days per week from sunrise to sunset. Trail markers, posts, and interpretive signs would be placed at the trailheads and along the trails to provide information on acceptable activities and to inform people straying off trails is not permitted. The trail markers provided at the trailheads and at all trail intersections would provide directions and distances (in miles and tenths of a mile) to noteworthy locations along the trails.

New fencing and gates would be designed to accommodate cattle grazing and to minimize conflicts between trail users and natural resources, grazing, and other ranching activities. Fences and gates would be designed to match the existing on-site facilities where appropriate and would include “kissing gates” for trail users to access lands where livestock graze. A kissing gate is a type of gate that allows people, but not livestock, to pass through. The normal construction is a half-round, rectangular, trapezoidal or V-shaped enclosure with a hinged gate trapped between its arms. This style of gate eliminates the need to close or lock a gate as people pass through. Regional Parks has used this style of fencing and gates with success in other County facilities where hikers and cattle share the same area.

In accordance with the Conservation Easement, any new fencing would comply with the County’s Agricultural Preservation and Open Space District’s (District) standards for fences on conservation lands, which include: no more than 40-inches in height, with smooth bottom wire no closer than 16-inches from existing grade, two or three smooth or barbed central wires, and smooth top wire. The top wire would be set at 12-inches from the next wire to reduce the chance of wildlife entanglement.

The project does not include the addition of new residences that could increase the demand on existing neighborhood and regional parks. The project would provide new recreational facilities that would help relieve demand on existing County parks and recreation facilities. The project would not increase the use of existing County parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; therefore, impacts are considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.12-2: The proposed project would not include recreational facilities that could have an adverse physical effect on the environment. This is a less-than-significant impact.

As described above, the project includes construction of two public pedestrian-only trails totaling a maximum of 5 miles in length, and two parking/staging areas and non-motorized boat and hiker-only access to the Estero. The District acquired the Trail Easement from the landowners to develop trails to allow public access for low-intensity outdoor recreational and educational purposes consistent with the purpose of the intent of the Conservation Easement to preserve and protect natural resources, habitat connectivity, open space and scenic views, and agricultural resources. The project does not include any uses, such as residences, that would introduce a new population requiring new parks or the expansion of existing park facilities. The Trail Easement portion of the project site would be used for low-intensity public outdoor recreational and educational uses, consistent with the Conservation Easement requirements. The physical effects of construction and operation of the project on the environment have been evaluated in this document and are addressed in Sections 3.1 through 3.11 and Section 3.13 of this EIR. Based on the analysis all potential impacts can be addressed with mitigation and reduced to **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

The geographic scope for cumulative recreation impacts is development within Sonoma County.

3.12-3: The proposed project would not contribute to cumulative impacts related to recreational resources. The project's contribution would not be considerable.

As described above, the proposed project would increase use of the site by constructing two trails and associated staging areas for low-intensity public outdoor recreational and educational uses. The project does not include new residences that could increase demand for existing recreation facilities. Potential impacts resulting from construction and operation of the trails has been evaluated and fully mitigated (see Sections 3.1 through 3.11 and 3.13). The County is providing recreational opportunities in an area of the County where limited recreational options currently exist. The County's General Plan EIR identified cumulatively significant impacts related to recreation resources due to a deficit in parkland acreage. The project is proposing to provide new recreational facilities within the County and would not contribute to any existing cumulatively considerable recreation impacts. The project's contribution to the cumulative impact is not considerable resulting in a less-than-significant cumulative impact.

Mitigation Measures

No mitigation measures are required.

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Sonoma County. 2006. Sonoma County General Plan 2020 Draft Environmental Impact Report. January 2006.

3.13 Transportation and Circulation

Introduction

This section of the Draft Environmental Impact Report (EIR) presents potential transportation and circulation-related impacts of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project). The analysis contained in this section is based on information provided by W-Trans traffic consultants. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

In response to the Notice of Preparation (NOP), Caltrans commented that the operations analysis of the project should include project related trip generation, distribution, turning movements, storage capacity within the project vicinity, as well as the existing project's driveway capacity and staging area in relation to State Route 1 (SR 1). Caltrans also noted that the project site falls under Place Type 5 Rural Agricultural Lands – Rural Towns and included recommended Transportation Demand Management measures for the project. Other comments cited potentially unsafe conditions for vehicle access from SR 1 and stressed the need for a dedicated turn lane. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

Comments received in response to the prior Mitigated Negative Declaration released in October 2016, include concerns associated with the overall increase in vehicle and foot traffic. The California Department of Transportation (Caltrans) comment contained recommendations for the transportation impact study (TIS) to include vehicle miles traveled (VMT) analysis and efforts to reduce regional VMT. Caltrans also recommended multimodal planning and connections to the proposed Class II bike lane on SR 1. Because the project is a recreational use in a rural area of the County and generates so few trips, preparing a VMT analysis is not practical or necessary for the project. In addition, the County has yet to adopt VMT thresholds of significance, so the significance of the project's VMT could not be determined.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA), and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR.

Environmental Setting

This section describes the existing setting in the project area and the built environment. The project site is located at 17000 Valley Ford Cutoff, in unincorporated Sonoma County, west of the unincorporated community of Valley Ford. Access to the site is provided via an unimproved driveway off SR 1.

The County of Sonoma's *Guidelines for Traffic Impact Studies* was referenced for this analysis. Since the project access is via a driveway, and not a public road intersection, specific criteria from the guidelines are relevant to this situation:

Intersection Operations – This criteria applies to all controlled intersections except for driveways and minor side streets that have less than 30 vehicle trips per hour per approach or exclusive left turn movement. In the case of the project driveway access, the intersection level of service standards do not apply. However, for informational purposes, the access was evaluated as a public road intersection in order to present its operations.

Turn Lanes – The guidelines indicate to identify situations where the addition of project traffic at an intersection, including project driveways, causes an intersection to meet or exceed criteria for provision of a right or left-turn lane on an intersection approach. This evaluation is presented in the analysis below.

Sight Distance - The guidelines indicate to identify situations where the proposed project constructs an unsignalized intersection (including driveways) and/or adds traffic to an existing unsignalized intersection(s), including project related driveways that have inadequate sight distance based on Caltrans or AASHTO criteria. This evaluation is presented in the analysis below.

Study Area and Periods

SR 1 is a two-lane highway that typically runs north-south, but runs east-west in the study area and connects to Freestone Valley Ford Road to the east and Bodega Highway to the west. The speed limit on SR 1 is not posted in the study area, but the *prima facie*¹ speed limit of 55 miles per hour (mph) was used for analysis purposes. SR 1 has 12-foot travel lanes and six-foot shoulders in each direction, fencing approximately 20 feet set back from roadway, and dashed yellow centerline striping to the west and striping which prohibits eastbound passing to the east, while carrying an average of 5,200 vehicles daily. Approximately three to four feet of shoulder is provided on both sides of the highway. The study area consists of the location where the project access road connects with SR 1. Approximately 350 feet north and west of the project access road is the Sonoma Coast Villa Resort & Spa driveway access. There is an existing driveway apron at the access point for the project site; it has a width of 14 feet at its neck.

Operating conditions during the weekday p.m. and weekend midday peak periods were evaluated as these time periods reflect the highest traffic volumes area wide and for the proposed project. The evening peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion of the day during the homeward bound commute, while the weekend midday peak occurs between 12:00 noon and 2:00 p.m.

¹ Based on general information a speed limit 55 mph is assumed, unless evidence to the contrary is provided.

Alternative Modes

Pedestrian, Bicycle and Transit Facilities

Since this is a rural setting, no pedestrian facilities are present in the study area. SR 1 in the study area does not currently have bicycle facilities (Class II striped bike lane) and bicyclists generally ride in the roadway; however, there are proposed Class II bike lanes for SR 1 based on the Countywide Bicycle and Pedestrian Plan. There are no transit facilities in the area.

Existing Traffic Operations

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

Even though the project access point is a driveway, it was evaluated as an intersection for the purposes of this analysis. The study “intersection” was analyzed using the “Two-Way Stop-Controlled” methodology published in the Highway Capacity Manual (HCM - TRB 2010). This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. The “Two-Way Stop-Controlled” methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The ranges of delay associated with the various levels of service are provided in Table 3.13-1.

**Table 3.13-1
Two-Way Stop-Controlled Intersection Level of Service Criteria**

LOS A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.
LOS B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.
LOS C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.
LOS D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.
LOS E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.

**Table 3.13-1
Two-Way Stop-Controlled Intersection Level of Service Criteria**

LOS F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.
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Source: *Highway Capacity Manual*, Transportation Research Board, 2010.

Traffic Volumes

Traffic counts were collected in April 2018, by machine counter near the project site and show a daily weekday volume of 5,200 vehicles per day, a weekday p.m. peak hour volume of 465 vehicles and a weekend daily volume of 7,350 and a midday peak hour volume of 705 vehicles total for both directions on SR 1. Based on 2016 traffic counts published by Caltrans, this section of SR 1 carries an average of 4,650 vehicles per day and 740 vehicles during the peak hour. Because the volume of bicyclists is very low, no bicycle counts were conducted.

The machine counts also collected speed surveys near the project's access roadway for a 24-hour period. Speeds in the area average approximately 53 miles per hour (mph) with an 85th percentile speed of 59 mph and a 95th percentile speed of 64 mph. Highway design guidelines suggest that the posted speed should represent the 85th percentile speed of the vehicles using the facility and that the roadway alignment should be designed to support the 95th percentile speed. The traffic counts and speed surveys are included in Appendix E.

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday p.m. and weekend midday peak periods. This condition does not include project-generated traffic volumes.

Intersection Levels of Service

Under existing conditions without the project, there is no delay at the project access driveway. The existing traffic volumes are shown in Figure 3.13-1, as well as future and existing plus project and future plus project. A summary of the intersection LOS calculations is contained Table 3.13-2, and copies of the LOS calculations are provided in Appendix E.

**Table 3.13-2
Existing Peak Hour Intersection Levels of Service**

Study Intersection Approach	PM Peak		Midday Peak	
	Delay	LOS	Delay	LOS
1. SR 1/Project Access	0.00	A	0.00	A

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service

Source: W-Trans 2018.

Existing Traffic Safety and Collision History

In response to safety concerns the existing traffic safety and collision history of SR 1 in the study area has been evaluated. The collision history for the section of SR 1 within 200 feet of the project access point was reviewed to determine any trends or patterns that may indicate a safety issue. The most current five-year period available is January 1, 2013 through December 31, 2017.

As presented in Table 3.13-3, the calculated collision rate for the study segment was compared to the average collision rate for similar facilities statewide, as indicated in *2014 Collision Data on California State Highways*, California Department of Transportation (Caltrans). For the segment within 200 feet in either direction of the project access, the calculated collisions rate for SR 1 is less than the Statewide Average for similar facilities.

**Table 3.13-3
Collision Rates for the Study Segment**

Study Roadway Segments	Number of Collisions (2013-2017)	Calculated Collision Rate (c/mvm)	Statewide Average Collision Rate (c/mvm)
1. SR1/Project Access	1	0.89	1.40

Note: c/mvm = collisions per million vehicles miles

Source: W-Trans 2018.

Sight Distance

Sight distance along SR 1 from the project access road was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. Vehicle speeds on SR 1 were surveyed both during a site visit in May 2018 as well as collected by machine with the traffic counts in April 2018. These surveys were used to obtain the 85th percentile speed, which was used for sight distance standards. The 85th percentile speed was calculated at 59 miles per hour (mph); therefore, a speed of 60 mph was used to assess the sight distance. The recommended sight distance for minor street approaches, such as the project access road, are based on stopping sight distance, which uses approach travel speeds as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a driver to stop if there is a vehicle waiting to turn into the project site is evaluated based on stopping sight distance criterion and the approach speed on the major street (SR 1). Conclusions related to sight distance are provided in the Impacts discussion below.

Regulatory Setting

All roads within the project area are under the jurisdiction of state and local agencies. State jurisdiction includes permitting and regulation of the use of state roads, while local jurisdiction

includes implementation of state permitting, policies, and regulations, as well as management and regulation of local roads. Applicable laws and regulations related to traffic and transportation issues are discussed below.

Federal Regulations

There are no federal regulations applicable to the proposed project.

State Regulations

California Department of Transportation

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. If construction of the project requires work within the Caltrans right-of-way, an encroachment permit from Caltrans would be required.

Local Regulations

Sonoma County General Plan 2020

Roads in the project study area are under the jurisdiction of Sonoma County. County policies and regulations regarding the design, use, or obstruction of roadways are detailed in the Sonoma County General Plan 2020 Circulation and Transit Element (Sonoma County 2016a). The Circulation and Transit Element provides goals and objectives regarding transportation and traffic, including the following that are most relevant to the study area:

Goal CT-1: Provide a well-integrated and sustainable circulation and transit system that supports a city and community centered growth philosophy through a collaborative effort of all the Cities and the County.



SOURCE: W-Trans 2018

FIGURE 3.13-1
Existing, Future, Existing Plus Project and Future Plus Project Traffic Volumes
Esteros Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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Objective CT-1.6: Require that circulation and transit system improvements be done in a manner that, to the extent practical, is consistent with community and rural character, minimizes disturbance of the natural environment, minimizes air and noise pollution, and helps reduce greenhouse gas emissions.

Goal CT-2: Increase the opportunities, where appropriate, for transit systems, pedestrians, bicycling and other alternative modes to reduce the demand for automobile travel.

Objective CT-2.10: Utilize shoulders, paths, and bike lanes for other alternative transportation modes along existing streets, roads, and bicycle routes where consistent with public safety and the Vehicle Code.

Goal CT-3: Establish a viable transportation alternative to the automobile for residents of Sonoma County through a safe and convenient bicycle and pedestrian transportation network, well integrated with transit, that will reduce greenhouse gas emissions, increase outdoor recreational opportunities, and improve public health.

Objective CT-3.5: Provide incentives for business and government to increase the use of walking and bicycling by employees for both commuting and daily operations.

Objective CT-3.8: Increase the safety, convenience, and comfort of all pedestrians and bicyclists, by eliminating the potential obstacles to this mode choice that is associated with the lack of continuous and well-connected pedestrian walkways and bicycle facilities, and the lack of safe crossing facilities, especially focusing on short trips that could result in a decrease in automobile travel.

Policy CT-3a: Use the adopted Sonoma County Bicycle and Pedestrian Plan (Bikeways Plan) as the detailed planning document for existing and proposed bikeways and pedestrian facilities.

Policy CT-3h: Develop a Level of Service standard for identifying performance of the bicycle and pedestrian transportation network that takes into consideration travel distance, potential bicycle and pedestrian transportation needs, potential for improved mode split with improved facilities, and existing network deficiencies.

Policy CT-3i: Use the Level of Service standard developed by Policy CT-3h to evaluate impacts to bicycle and pedestrian facilities that may result from discretionary projects, and identify corrections and/or improvements necessary to mitigate those impacts.

Policy CT-3n: Use the following criteria to determine consistency of public and private projects with the Bikeways Plan: (1) Development of lands traversed or adjoined by an

existing or future Class I bikeway shall not preclude establishment of the bikeway, nor conflict with use and operation of the bikeway or adversely affect long term maintenance and safety of the facility. (2) Construction, widening, or maintenance of roads with designated bikeways meets the design and maintenance standards for the appropriate class of bikeway as specified by the Bikeways Plan.

Policy CT-3ff: Provide adequate bicycle parking as part of all new school, public transit stops, public facilities, and commercial, industrial, and retail development following standards established in adopted Bikeways Plan.

Goal CT-4: Provide and maintain a highway system capacity that serves projected highway travel demand at acceptable levels of service in keeping with the character of rural and urban communities.

Objective CT-4.1: Maintain LOS C or better on roadway segments unless a lower LOS has been adopted.

Objective CT-4.2: Maintain LOS D or better at roadway intersections.

Objective CT-4.3: Allow the above levels of service to be exceeded if it is determined to be acceptable due to environmental or community values, or if the project(s) has an overriding public benefit that outweighs lower levels of service and increased congestion.

Objective CT-4.4: Utilize the American Association of State Highway Transportation Officials (AASHTO) functional classification system and guidelines for geometric design for the highway network.

Policy CT-4b: Use area and/or project traffic analyses to determine if intersections meet the LOS standards of Objectives CT-4.2 and CT-4.3. Based on this analysis, identify and implement intersection improvements needed to achieve LOS D.

Sonoma County Bicycle and Pedestrian Plan

The Sonoma County Bicycle and Pedestrian Plan (SCBPP) establishes goals, objectives, policies and project priorities for the bicycle and pedestrian network in unincorporated areas of the County. The intent of the plan is to coordinate development of a seamless regional network that integrates with adjacent cities (Sonoma County 2010).

The SCBPP identifies a goal that encourages bicycle and pedestrian mobility throughout Sonoma County, and notes that people are most likely to choose walking in areas with high residential density and relatively short distances to schools, parks, shopping and jobs. With the unincorporated areas of Sonoma County, the SCBPP notes that these conditions are primarily found in Urban Service Areas. The project site is not located within an Urban Service Area.

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA) was formed as a result of legislation passed in 1990 to serve as the coordinating and advocacy agency for transportation funding for Sonoma County, and, since 2004, administers Measure M funds generated within Sonoma County through a local sales tax for specific transportation projects in the County. The SCTA partners with other agencies to improve transportation in the County, for programmed projects including Highway 101 widening, local streets, transit, and bicycle and pedestrian facilities.

The *2009 Comprehensive Transportation Plan* for Sonoma County provides further guidance for transportation planning and associated goals and policies (SCTA 2009). This plan focuses on the design and implementation of improvements to the County circulation system, including roadways, bikeways, and rail service. It should be noted that the Transportation Plan is not directly applicable to the project, but is provided for informational purposes.

Impacts

Methods of Analysis

Trip Generation

The anticipated trip generation for a project is generally estimated using standard rates published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 10th Edition, 2017 (ITE 2017). This publication includes information for a Public Park (ITE LU # 411) which would be the closest land use category to the proposed project. However, that park use generally represents active park activities such as sports, developed picnic facilities, boating, multi-use trails, etc., some of which are more active than anticipated for the proposed project, which is pedestrian only use trails, no dogs allowed anywhere onsite, informal picnic facility, and hiker and boater access to the Estero. Due to limitations of this data, surveys were conducted in the summer of 2017 to establish vehicle trip rates for trailhead parking lots in Sonoma County. The surveys were conducted at three separate parks that have the most similar usage type as the proposed project and include Shell Beach, Laguna Wetlands Preserve, and Taylor Mountain Regional Park. A copy of the model output data is included in Appendix E.

Shell Beach, part of Sonoma Coast State Park, is off SR 1, south of SR 116, with a parking lot that serves as access to trailheads on both sides of SR 1 covering an estimated 500 acres. It should be noted that trip rates from data collection at Shell Beach in 2013 had been used for other open space/trailhead traffic studies in the area, such as the Calabazas Creek Open Space Preserve off SR 12 and Jenner Headlands Preserve between Jenner and Russian Gulch. These rates were updated in the 2017 surveys. Based on the new 2017 surveys, the Shell Beach parking lot generates traffic at a rate of 0.044 trips/acre of park during the weekday p.m. peak hour and 0.172 trips/acre of park during the Saturday midday peak hour.

Laguna De Santa Rosa Trail in the Laguna Wetlands Preserve has entrances on SR 12, east of SR 116 and on Occidental Road, east of SR 116 in the City of Sebastopol. This 400-acre area is owned, in part, by the City of Sebastopol and the City of Santa Rosa and includes a County Regional Parks (Regional Parks) Trail Easement. The trail area wraps around ponds, marshes and the largest freshwater complex on the Northern California Coast, the Laguna channel. The Laguna De Santa Rosa Trail parking lot generates traffic at a rate of 0.0675 trips/acre of park during the weekday p.m. peak hour and 0.060 trips/acre of park during the Saturday midday peak hour.

Taylor Mountain Regional Park is located on Kawana Terrace outside of the City of Santa Rosa and is owned by Regional Parks. This 1,100-acre park and open space preserve contains 5.5 miles of trails for hiking, biking and horseback riding with panoramic views of the City of Santa Rosa at the summit. Taylor Mountain Regional Park generates traffic at a rate of 0.044 trips/acre of park during the weekday p.m. peak hour and 0.025 trips/acre of park during the Saturday midday peak hour.

The proposed project is most similar to these three park projects as opposed to the land uses studied in the ITE Trip Generation Manual because all of these parks properties have a portion of the space dedicated to trail easement on a larger acreage of open space or privately-owned property. In other words, the majority of the land restricts public access, with only a portion dedicated to trails for public use. For the purposes of this study, the average of these three surveyed parks were used as a conservative estimate to identify the number of vehicle trips that would access the project site. Based on these surveyed rates, the proposed project would be expected to generate 26 weekday p.m. peak hour vehicle trips and 43 weekend midday peak hour trips.² These vehicle trip estimates are summarized in Table 3.13-4.

**Table 3.13-4
Vehicle Trip Generation Summary**

Land Use	Units/Acres	Weekday PM Peak Hour				Weekend MD* Peak Hour			
		Rate	Trips	In	Out	Rate	Trips	In	Out
<i>Surveyed</i>									
Taylor Mountain Regional Park	1,100 acres	0.044	48	26	22	0.025	28	14	14
Laguna Wetlands Preserve	400 acres	0.068	27	16	11	0.060	24	12	12
Shell Beach (2017)	500 acres	0.044	22	14	8	0.172	86	40	46
Proposed project	495 acres	0.052	26	12	14	0.086	43	21	22

Notes: Acres based on area of trails served.

*MD = Midday

Source: W-Trans 2018.

² It is anticipated this is a very conservative estimate of the project's trip generation and may only occur during holiday weekends, if at all.

Vehicle Trip Distribution

The trip distribution for the project was based on traffic counts taken at the nearby Sonoma Coast Villa Resort & Spa access driveway located on the opposite side of SR 1 approximately 350 feet north of the project’s access road. Counts were taken in July of 2018, which identified that 35% of the traffic is oriented to/from the west and 65% is to/from the east. These percentages were applied to the estimated vehicle trips to determine vehicle turning movements at the project’s access road.

Future Conditions

Historical traffic volume data available from Caltrans dating back 20 years indicates that traffic volumes on SR 1 in this area have decreased. However, in order to be conservative, a 20-year growth factor of 1.25 was assumed; this equates to an increase in traffic of 1.1% per year, which is typical for a number of roads in Sonoma County closer to urban areas. Under these conditions, SR 1 would be expected to carry 582 vehicles per hour during the p.m. peak hour, 994 vehicles per hour during the weekend midday peak hour and an average of 6,480 vehicles per day in the project area by the Year 2038.

Under the anticipated Future volumes without the project, the study intersection continues to have no traffic, therefore resulting in no delay. Future volumes are shown in Figure 3.13-1 and operating conditions are summarized in Table 3.13-5.

**Table 3.13-5
Future Peak Hour Intersection Levels of Service – Without the Proposed Project**

Study Intersection Approach	PM Peak		Midday Peak	
	Delay	LOS	Delay	LOS
1. SR 1/Project Access	0.00	A	0.00	A

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service
Source: W-Trans 2018.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and the County’s General Plan and traffic guidelines, a significant impact would occur if development of the proposed project would do any of the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

- 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.

Based on the most recent criteria published in the County of Sonoma's Guidelines for Traffic Impact Studies in May 2016 (Sonoma County 2016b), the project would have a significant traffic impact if it results in any of the following conditions:

- **On-site roads and frontage improvements:** Proposed on-site circulation and street frontage would not meet the County's minimum standards for roadway or driveway design, or potentially result in safety hazards, as determined by the County in consultation with a registered traffic engineer.
- **Parking:** Proposed on-site parking supply does not meet County standards and does not adequately accommodate parking demand.
- **Emergency Access:** The project site would have inadequate emergency access.
- **Alternative Transportation:** The project provides inadequate facilities for alternative transportation modes (e.g., bus turnouts, bicycle racks, pedestrian pathways) and/or the project creates potential conflicts with the County's Complete Streets Policy, or other adopted policies, plans, or programs supporting alternative transportation.
- **Road Safety:** Road design features that do not meet standards (e.g., sharp curves or skewed intersections) or any perceived incompatible uses (e.g., farm equipment, major bicycle route, rail or pedestrian crossings).
- **Vehicle Queues:** Project causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.
- **Signal Warrants:** The addition of the project's vehicle or pedestrian traffic causes an intersection to meet or exceed current Caltrans and/or CA-MUTCD signal warrant criteria.
- **Turn Lanes:** The addition of project traffic causes an intersection to meet or exceed criteria for provision of a right or left turn lane on an intersection approach.
- **Sight Lines:** The project constructs an unsignalized intersection (including driveways) or adds traffic to an existing unsignalized intersection approach that does not have adequate sight lines based upon Caltrans criteria for state highway intersections and AASHTO criteria for County roadway intersections.
- **County Intersection Operations:** The County Level of Service standard for County intersection operations is to maintain a Level of Service D or better pursuant to General Plan Policy CT-4.2. The project would have a significant traffic impact if the project's

traffic would cause an intersection currently operating at an acceptable level of service (LOS D or better) to operate below the standard (LOS E or F).

If the intersection currently operates or is projected to operate below the County standard (at LOS E or F), the project's impact is significant and likely considerable if it causes the average delay to increase by five seconds or more. The delay will be determined by comparing intersection operation with and without the project's traffic for both the existing baseline and projected future conditions. These criteria apply to all controlled intersections except for driveways and minor side streets that have less than 30 vehicle trips per hour per approach or per exclusive left turn movement. As noted previously, the level of service results are presented, but do not apply in terms of significance.

- **County Roadway Operations:** The County Level of Service Standard for County roadway operations is to maintain a Level of Service C pursuant to General Plan Policy CT-4.1; or, for specific roadway segments, the level of service standard adopted, in General Plan Figure CT-3. The project would have a significant traffic impact if the project's traffic would cause a road currently operating at an acceptable level of service (LOS C or better) to operate at an unacceptable level (LOS D or worse).
- **State Highways:** Caltrans' general level of service policy on State highways is to maintain the level of service at the transition between LOS C and LOS D. However, level of service goals for specific Caltrans facilities should be taken from transportation planning documents for that facility. A project would have a significant impact if the project traffic would cause the operation of a State highway to operate below LOS C. If a State highway currently operates or is projected to operate below the standard, the project's impact is considered significant and cumulatively considerable if it does not maintain the existing "measure of effectiveness". Measures of effectiveness are: (a) control delay per vehicle for signalized intersections; (b) average control delay per vehicle for unsignalized intersections; (c) average speed for two lane highways, and (d) density for multi-lane highways.

Significance Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance thresholds are not applicable to the project and therefore, are not considered potential impacts and further evaluated. These thresholds are noted briefly below and are not discussed further in this document.

The proposed project is a recreational use in a rural area of the County and generates minimal trips; therefore, preparing a VMT analysis consistent with CEQA Guidelines section 15064.3 is not practical or necessary for the project. In addition, the County has yet to adopt VMT thresholds of significance and has until July 1, 2020, so this criteria is not further evaluated.

The project does not propose any new design features on SR 1 or any other maintained road system; therefore, the project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. This criteria is not applicable to the project and not further evaluated. In addition, the project’s traffic volumes are very low, so the Signal Warrants criteria does not apply since the project does not trigger the need for a traffic signal. Thus, this criteria is not applicable to the project and not further evaluated.

The project is located on a state highway, SR 1; therefore, the Sonoma County Department of Transportation and Public Works has no jurisdiction over the highway and the level of service standard for County’s Roadway Operations does not apply. Therefore, this criteria is not further evaluated.

Lastly, due to the type of project, the 30 parking spaces provided is generally consistent with other trail uses in the County and should serve the anticipated parking demand. As noted in Chapter 2, Project Description, if parking becomes an issue, County Regional Park Rangers would be on-site to regulate access and to turn away users if no parking is available. Therefore, this criteria is not further evaluated

Project Impacts and Mitigation Measures

3.13-1: Implementation of the proposed project under Existing Plus Project conditions could degrade intersection operations that exceed Caltrans’ acceptable level of service D or better. This would be a short-term potentially significant construction impact.

With the addition of project-related traffic to the Existing traffic volumes, the study intersection is expected to continue to operate acceptably during p.m. peak hours under project operation. The results are summarized in Table 3.13-6 with project traffic volumes shown in Figure 3.13-1. This is a less-than-significant impact.

**Table 3.13-6
Existing and Existing plus Project Peak Hour Intersection Levels of Service**

Study Intersection Approach	Existing Conditions				Existing plus Project			
	PM Peak		Midday Peak		PM Peak		Midday Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 1/Project Access	0.00	A	0.00	A	0.4	A	0.5	A
Project Access Road	-	-	-	-	<i>10.5</i>	<i>B</i>	<i>13.7</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*.

Source: W-Trans 2018.

Project construction is anticipated to take 3 to 4 years to complete. With the exception of widening the main access road and constructing the staging/parking areas, only smaller equipment and

hand tools would be used to construct the trails. Because construction activities would only take place over the spring/summer months the amount of construction-related vehicle trips would be limited to only a few months. However, because this also coincides with when traffic is heavier along SR 1, construction activity, specifically larger trucks which may need more time to turn into and out of the site may generate short periods of delay to traffic on the highway. Flagging operations for larger trucks would address this concern and/or limiting construction access to off-peak periods. This may result in a short-term **potentially significant impact**.

Mitigation Measures

The following mitigation measure would ensure appropriate actions are taken by the County to ensure construction traffic would not create a hazardous condition, and the impact would be reduced to less than significant.

- TRAF-1 Construction Activities.** During project construction activities, the County shall obtain an encroachment permit from Caltrans, if required, and implement all measures in the permit. In addition, the County shall provide appropriate flagging operations for larger construction vehicles entering or exiting the project site, and/or limiting construction access to off-peak periods to the acceptance of Caltrans.

3.13-2: Implementation of the proposed project could add traffic (including construction traffic) to an existing unsignalized intersection approach that may not have adequate sight lines based upon Caltrans criteria for state highway intersections. This is less-than-significant impact.

Sight distance from the project access road at SR 1 was field measured and based on a design speed of 60 mph. The minimum stopping sight distance needed is 580 feet, based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. Field measurements indicate that the available sight distance to the south is greater than 700 feet, resulting in more than adequate sight distance for the outbound right-turn maneuver. Available sight distance to the north from the access road is greater than 1,000 feet, which is more than the necessary 500 feet. During project operation the stopping sight distance for a second vehicle behind a northbound vehicle turning left into the project site must also be greater than 660 feet and field measurements indicate there is adequate stopping sight distance. Therefore, during project operation this is considered a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

3.13-3: Implementation of the proposed project could result in the addition of project traffic that causes an intersection or driveway access to meet or exceed criteria for provision of a right or left turn lane on an intersection or driveway approach. This is considered a less-than-significant impact.

To address concerns raised in response to the NOP and using standard practice in evaluating similar projects, the need for a separate turn-lane was evaluated. The need for a left-turn and/or right-turn lane on SR 1 at the project access was evaluated based on criteria contained in Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985 (TRB 1985). The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes in order to determine the need for turn lanes due to safety concerns. Based on research conducted by W-Trans and discussions with Caltrans staff, this methodology is consistent with the Guidelines for Reconstruction of Intersections, August 1985, which was referenced in Section 405.2, Left-turn Channelization, of previous editions of the Caltrans Highway Design Manual, though this reference has been deleted from the most recent edition of this manual.

The need for left-turn channelization in the form of either a left-turn pocket or a two-way left-turn lane on SR 1 was evaluated based on the project's traffic volumes as well as safety criteria. The 85th percentile speed of 60 mph was used for the analysis. Under Existing plus Project conditions, a left-turn lane is not warranted on SR 1 at the project access point during both the weekday p.m. peak period and the weekend midday peak hour. However, another consideration in the analysis is the timing of the traffic counts, which were conducted in April 2018. If the counts were collected during the summer months, traffic volumes along SR 1 would likely be higher and may lead to conditions which would have warranted the left-turn lane. At this time based on the analysis the proposed project does not result in the need for a left turn at the project access. The turn lane warrants are provided in Appendix E.

The need for a right-turn lane or taper was also evaluated based on criteria contained in the NCHRP Report No. 279, Transportation Research Board, 1985. A right-turn lane would consist of a lane installed to the right of the travel lane and would be a minimum of ten feet wide, plus a shoulder where not adjacent to a curb. A right-turn taper is a shoulder area that gets progressively wider as the motorist drives toward the intersection. Both improvements are meant to provide an area for motorists turning right to move out of the traffic lane without impeding through traffic. The warrants were evaluated using existing and future volumes both with and without the project.

The need for a right-turn lane or taper was evaluated for SR 1 at the project access. Using the same criteria contained in the Intersection Channelization Design Guide, the warrants were evaluated using the above-described volume assumptions/scenarios. Based on these

assumptions, no additional facilities in the form of either a right-turn lane or right-turn taper would be warranted due to the limited number of vehicles making the right-turn into the project site. Even with increased traffic volumes within the expected variance, the right turn lane or taper would not be warranted. The results are included on the same spreadsheets as the left-turn warrants, and are provided in Appendix E.

Therefore, because the project's traffic volumes would not meet the turn lane warrants this is considered a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

3.13-4: Implementation of the proposed project could result in inadequate emergency access. This is considered a less-than-significant impact.

Access to the project site is via an existing access road off SR 1. As described in Chapter 2, Project Description, the access road, gate, and bridge would be improved or replaced in the same or similar locations. The access road would be widened to 12-feet wide, re-graded with a gravel base, turnouts may be provided, as necessary for two-way traffic. Two parking lots (or staging areas) would be provided. One parking area would be located to the north near SR 1 (north area), and the other would be located south of the existing barn, as shown in Figure 2-4. A total of 30 parking spaces would be available between the two staging areas (including one ADA space in each lot).

In the event of an emergency, police, fire or ambulance vehicles could access the site via the project's access road and park in one of the two parking areas. Because the project provides access for emergency vehicles this is considered a **less-than-significant impact**.

Mitigation Measures

No mitigation measures are required.

3.13-5: Implementation of the proposed project could conflict with a program, plan, ordinance or policy that addresses transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This is considered a less-than-significant impact.

There are no public transit facilities within vicinity of the project site. Therefore, the project would not impact public transit facilities.

Currently there are no Class II bike lanes on SR 1 in the vicinity of the project site; however, Class II bike lanes are proposed for SR 1 based on the Countywide Bicycle and Pedestrian Plan. The

project would be expected to conservatively generate 26 weekday p.m. peak hour trips and 43 weekend midday peak hour trips for the purposes of the traffic analysis. However, since the project use is a pedestrian trail which would not allow off-road bikes, bicycle access to the site would be expected to be negligible. The project would not affect existing bicycle access along SR 1 and would not conflict with adopted County bicycle policies and standards.

There are no existing pedestrian facilities along SR 1 near the project site and with adequate on-site parking and circulation insuring vehicles do not park along the shoulder of SR 1, the impact to pedestrians is considered less than significant. Therefore, the project would not conflict with County policies or other programs or plans and the impact is **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

As noted earlier, historical traffic volume data available from Caltrans dating back 20 years indicates that traffic volumes on SR 1 in this area have decreased. Therefore, the cumulative analysis conservatively assumed that traffic would grow based on a 20-year growth factor of 1.25; this equates to an increase in traffic of 1.1% per year which is typical for a number of roads in Sonoma County closer to urban areas.

3.13-6: Under Cumulative plus Project conditions the proposed project would not degrade intersection operations that exceed Caltrans’ acceptable level of service C or better. This would be a less-than-significant cumulative impact.

Future plus Project Conditions

Under Future plus Project conditions with the addition of project-generated traffic to the anticipated future traffic volumes, the study intersection is expected to continue to operate acceptably, as shown in Table 3.13-7. This is a **less-than-significant impact**.

**Table 3.13.7
Future and Future plus Project Peak Hour Levels of Service**

Study Intersection Approach	Future Conditions				Future plus Project			
	PM Peak		Midday Peak		PM Peak		Midday Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR 1/Project Access	0.00	A	0.00	A	0.4	A	0.5	A
<i>Project Access Driveway</i>	-	-	-	-	11.3	B	16.1	C

Note: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*.

Source: W-Trans 2018.

Mitigation Measures

No mitigation measures are required.

3.13-7: Under Cumulative plus Project conditions the addition of project traffic could cause an intersection or driveway access to meet or exceed criteria for provision of a right or left turn lane on an intersection or driveway approach. This is considered a significant and unavoidable impact.

Future plus Project Conditions

Under Future plus Project conditions the need for a right-turn lane or taper was evaluated for SR 1 at the project access based on criteria contained in the NCHRP Report No. 279, Transportation Research Board (1985). It was determined a right turn lane or taper would not be warranted based on traffic volumes under Future plus Project conditions. The results are included on the same spreadsheets as the left-turn warrants, and are provided in Appendix E.

Under Future plus Project conditions, the need for a left-turn lane on SR 1 to allow vehicles to turn left into the project site was also evaluated. Based on the Caltrans criteria a left-turn lane is not warranted on SR 1 at the project access during both the weekday p.m. peak period and the weekend midday peak hour. However, under the Future plus Project midday peak hour scenario the left-turn lane warrant is just under the threshold of meeting warrants. Under this condition, 14 peak hour left-turns were estimated into the project site. If the left-turn volume was 17 peak hour vehicles, which is well within the standard deviation of the trip generation rates, the left-turn lane warrant would have been satisfied. Also, if the 95th percentile speed of 64 mph had been used, the warrant would have been also satisfied using the 14 peak hour left-turns (turn lane warrants are provided in Appendix E.) Because safety was a concern raised due to vehicles accessing the project site and because under Future plus Project conditions a left-turn lane is warranted due to project traffic, this is considered a potentially significant impact.

The County currently does not have an adopted plan or funding mechanism to widen SR 1 to include a left turn lane in this area as well as sufficient shoulder width to accommodate bike lane facilities that would be required by Caltrans. Therefore, because there is no funding available to construct this left-turn lane under Future plus Project conditions the impact is considered **significant and unavoidable**.

Mitigation Measures

No feasible mitigation measures are available.

References

TRB (Transportation Research Board). 2010. *Highway Capacity Manual*.

ITE (Institute of Transportation Engineers). 2017. *Trip Generation Manual*, 10th ed..

Sonoma County. 2016a. Sonoma County General Plan 2020 Circulation and Transit Element. Adopted September 23, 2008. Last amended August 2, 2016.

Sonoma County. 2016b. Sonoma County Guidelines for Traffic Impact Studies. May 2016.

Sonoma County. 2010. Bicycle and Pedestrian Plan. Accessed December 2, 2019.

<https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Bicycle-and-Pedestrian-Plan/>.

CHAPTER 4 OTHER CEQA CONSIDERATIONS

Introduction

This chapter includes the following other considerations that are required to be discussed in an environmental impact report (EIR):

- Effects Not Found to be Significant
- Significant and Unavoidable Environmental Impacts
- Significant and Irreversible Environmental Effects
- Growth Inducement

Effects Found Not to Be Significant

Section 15128 of the California Environmental Quality Act (CEQA) guidelines requires that an EIR briefly describe potential environmental effects that were determined not to be significant and therefore were not discussed in detail in the EIR. Based on the analysis provided in this EIR, the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) would not result in significant impacts related to the following topics, which are not further evaluated in the EIR:

- Forest Resources
- Energy
- Hazards and Hazardous Materials
- Mineral Resources
- Population and Housing

Additional information and discussion regarding the effects found not to be significant can be found below.

Forest Resources

The area proposed for development of future trails, staging/parking areas, and widening the access roadway would not require the removal of any trees. The project site is located within the larger Bordessa Ranch property that is currently, and has historically, been used for cattle grazing. There are no forest resources on the site and the site is not zoned for forest or timberland. The site does contain some stands of trees located near central creek that traverses the central portion of the site and in some of the valleys formed by the rolling hills. The trees on

the project site do not meet the definition of forestland¹, Timber, Timberland, or a Timberland Production Zone². Therefore, the proposed project would not conflict with forestland zoning or result in the loss or conversion of forestland to non-forest uses. The trail corridors, staging/parking areas and access road widening are either located or have been designed to avoid removing any trees; thus, the project would have no impact to forest resources.

Energy

The proposed project includes developing trails, staging/parking areas and widening an existing access road. The trails would only be open to the public during daylight hours. The project does not include development of any uses that would require energy, including the provision of any type of lights. Construction would require the use of small equipment to create the trails, parking areas and to widen the access road. The project would not result in the unnecessary consumption of resources during construction activities. During project operation hikers accessing the trails would not consume energy in a wasteful manner nor would operation of the project conflict with plans designed to promote or encourage the use of renewable energy and energy efficiency. There would be no impact to energy associated with construction or operation of the project.

Hazards and Hazardous Materials

There are no existing contaminants or known hazardous sites on the project site or within one mile, based on a review of the Cortese database and the State Water Resources Control Board Geotracker database. During project construction, there exists a potential for the short-term use of hazardous materials/fuels associated with the use of construction equipment. However, the use, storage, transport, and disposal of these materials are required to comply with all existing local, state, and federal regulations. In addition, during project construction if any subsurface contamination is discovered that could adversely affect on-site construction personnel, the on-site contractor is required to stop work immediately and contact County staff. Because applicable hazardous materials laws and regulations would be implemented as standard procedure for construction of the proposed project through contractor specifications and monitored by the County, the impact would be less than significant.

¹ PRC Section 12220(g) defines “forest land” for the purposes of CEQA as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

² California Government Code Section 51104(g) defines “Timber,” “Timberland,” and “Timberland Production Zone” for the purposes of CEQA as either trees of any species maintained for eventual harvest for forest production purposes (“Timber”); privately owned land, or land acquired for State forest purposes, used for growing and harvesting timber (“Timberland”); or “Timberland Production Zone” which means an area zoned and used for growing and harvesting timber.

Operation of the proposed project does not include any uses that would require the transport, handling, or disposal of hazardous materials, other than typical construction and landscaping materials. The types and quantities of these common chemicals would not be substantial and would not pose a health risk to people accessing the trails or any adjacent uses. Any impacts would be less than significant.

Mineral Resources

The project site does not contain any known mineral resources recognized by the state as being of value, nor is the site identified in the County's General Plan as a locally important mineral resource recovery site. The site has been used as a cattle ranch for many decades and development of a portion of the project site for passive recreation uses would not result in the loss of any known mineral resources. Therefore, no impacts would occur.

Population and Housing

The proposed project includes development of two trails and associated staging/parking areas and minor widening of the access road, pursuant to the terms of the Trail Easement that overlays a portion of the 495-acre ranch. There are no residences located on the project site that would be displaced by the project. The project does not include developing any new residences or any other uses that would generate an increase in either population or housing within the County. Therefore, no impacts associated with changes in population or housing would occur.

Significant and Unavoidable Environmental Impacts

The environmental effects of the proposed project are identified and discussed in detail in Chapter 3 and are summarized in the Executive Summary. Implementation of the project-specific mitigation measures identified throughout the Chapter 3 analysis would reduce all significant impacts to less-than-significant levels with the exception of one significant and unavoidable cumulative traffic impact.

Significant and Irreversible Environmental Effects

The CEQA Guidelines mandate that an EIR must address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines, Section 15126(c)). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of the project would generally commit future generations to similar uses;

- The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and/or
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the proposed project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them.

Implementation of the proposed project would involve constructing two trails and two staging/parking areas within an existing Trail Easement. Operation of the proposed project would not require the use of energy; with the exception of occasional maintenance work. However, due to the nature of the project it would not be considered resource-intensive or involve a large commitment of nonrenewable resources. Construction of the proposed project would include use of natural resources in the form of construction supplies including lumber and other forest products and fossil fuels such as gasoline and oil. These resources are frequently used in most general construction projects and are potentially nonrenewable.

Implementation of the proposed project would commit future generations to use of this site for passive recreational activities for the foreseeable future. The project site has historically supported agricultural uses, which are consistent with the land use and zoning designations, and implementation of the proposed project would not result in rezoning or changing land use designations. Development would occur with the designated Trail Easement would retain its agricultural character.

The project is not expected to result in the wasteful use of energy or other nonrenewable resources. Proposed infrastructure improvements would be minimal, discussed in detail in Chapter 2, Project Description, and would not result in the wasteful use of energy or other nonrenewable resources. Overall, the proposed project would not result in significant and irreversible effects on the environment.

Growth Inducement

CEQA requires a discussion of ways in which the proposed project could induce growth. The CEQA Guidelines identify a project as growth inducing if it fosters economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment (CEQA Guidelines, Section 15126.2[d]). New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. A project could indirectly induce

growth by reducing or removing barriers to growth or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment.

As discussed in Chapter 2, Project Description, the project would not include the extension of any infrastructure improvements to the site or require new water, sewer or storm drain infrastructure. The project does not include the creation of housing or commercial uses that would generate new residents or employees to Sonoma County. The project would not require the creation of any permanent new jobs. Development of the proposed project would generate construction-related employment during the 3-4 year construction period. Construction workers would be on site daily for the duration of the multi-year construction period and are expected to be primarily local. Given the nature of the project only a small number of workers are required, and it is not likely that a substantial number of workers would relocate to the County to work on constructing the proposed project. Due to the short duration and temporary nature of construction jobs, the increase in jobs during the construction period is not expected to be growth inducing.

Operation of the project would not require any new employees and due to the nature of the project would not be a driver to induce growth in the region.

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CHAPTER 5 ALTERNATIVES

Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, environmental impact reports (EIRs) are required to “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives” (14 CCR 15126.6(a)). An EIR “must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation” (14 CCR 15126.6(a)). The alternatives discussion is required even if these alternatives “would impede to some degree the attainment of the project objectives, or would be more costly” (14 CCR 15126.6(b)).

Consistent with the CEQA Guidelines, the EIR does not consider every conceivable alternative to the project or multiple variations on the alternative that it does consider. Rather, the EIR considers a reasonable range of potentially feasible alternatives that would mitigate or avoid potentially significant impacts of the proposed project in order to foster informed decision making and public participation.

The inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact “feasible.” The final decision regarding the feasibility of alternatives lies with the decision maker for a given project who must make the necessary findings addressing the feasibility of alternatives for avoiding or substantially reducing a project’s significant environmental effects (California Public Resources Code Section 21081; see also 14 CCR 15091).

This chapter identifies the proposed project objectives, describes the project alternatives, and evaluates the comparative effects of the alternatives relative to the proposed project. As required under Section 15126.6(e)(2) of the CEQA Guidelines, the environmentally superior alternative is identified and included at the end of this chapter.

Project Objectives

The primary objectives of the Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas and Construction and Operation of Recreational Amenities project (proposed project) are set forth in Chapter 2, Project Description, of this EIR and consist of the following:

- Provide public access to the Trail Corridors and Staging Areas in perpetuity for low-intensity public outdoor recreational and educational purposes in accordance with the District’s Grant Agreement with the California Coastal Conservancy, dated May 3, 2012 (Agreement No. 11-063).

- Provide public access within the Trail Easement area consistent with the preservation of natural resources and habitat connectivity, open space and scenic views, and existing agricultural resources.
- Create public access pedestrian-only trails that provide a broad public benefit for all ages and cultures and users of varying abilities.
- Provide pedestrian-only trails to support interactive educational experiences.
- Provide pedestrian-only trails that balance resource protection with high quality public access and maximize sensitive resource protection.
- Design pedestrian-only trails in accordance with appropriate trail standards, including the California Department of Parks and Recreation's Trails Handbook (1991, updated 2019) and Accessibility Guidelines (2015) and the California Department of Conservation and Recreation Trails Guidelines and Best Practices Manual (2010).
- Provide pedestrian-only trails to a unique and inspiring landscape that promote and enhance public enjoyment and appreciation of the natural, cultural and scenic resources on the property.

Significant and Unavoidable Impacts

The proposed project would result in the following significant and unavoidable transportation impact on a cumulative level. There is no feasible mitigation available to reduce this impact to less than significant.

- Under Future plus Project conditions, construction of a left-turn lane to allow vehicles to safely turn into the project site would be required, per Caltrans guidance for determining when a left-turn lane is warranted.

Alternatives Considered But Dismissed from Further Consideration

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are potentially feasible, and therefore merit in-depth consideration, and which are not feasible. Alternatives whose implementation is remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, Section 15126.6(f)(3)). Factors that may be considered when addressing the feasibility of an alternative include site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, economic viability, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site. Alternative selection should focus on alternatives that would avoid or substantially lessen any of the significant effects of the project (14 CCR 15126.6(a)).

Alternate Site

Analysis of alternative locations is generally most appropriate in the land use context where changes in zones or planning documents are contemplated. The proposed use is consistent with the underlying land use designation, zoning and Trail Easement and is not proposing to make any changes to the existing land use or zoning. The County or the District does not have a Trail Easement on any other property in the area that would be suitable for the proposed project. It is not feasible for the County or District to reasonably acquire another Trail Easement for the proposed project within the area; therefore, an off-site or alternate site alternative is not evaluated further in this EIR.

Alternatives to the Proposed Project Considered in this EIR

This section provides a description of the alternatives to the proposed project analyzed in this Draft EIR and evaluates how specific impacts differ in severity from those associated with the project. For purposes of this analysis, the potentially significant impacts identified under the alternatives analysis are assumed to be fully mitigated through compliance with mitigation measures identified in Sections 1.1 through 3.13 included in Chapter 3, which contains the environmental analysis of the proposed project.

The project alternatives identified herein address the significant impacts (before mitigation) identified for the project including biological resources, cultural resources, and traffic. Thus, the alternatives developed for the project contemplate a change in land uses that includes a reduction in development to address these impacts. In many instances, the impacts are virtually identical to the proposed project and are described as such.

This Draft EIR has incorporated a reasonable range of project alternatives that, collectively, attain a majority of the project objectives in a reasonable manner while reducing the severity of the significant impacts (before mitigation) identified under the proposed project. The No Project Alternative is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines that examines the environmental effects if the project were not to proceed.

The alternatives to the proposed project analyzed in this Draft EIR are:

- **Alternative 1: No Project** (no development), assumes the project site would remain in its current condition.
- **Alternative 2: Docent Only Alternative** assumes the proposed East and West trails, staging areas, and improvements to the access road would still be constructed. However, only the northern staging would be constructed and public access would only be permitted with a docent present and access to the Estero would be limited to pedestrians only; no boat access would be permitted under this alternative.

- **Alternative 3: Eliminate Estero Access Alternative** entails removing the portion of the East Trail that heads directly south to the Estero, south of the existing barn. All other components of the project would not change under this alternative, including the eastern portion of the East Trail and the southern staging area. Pedestrian and boat access to the Estero would be eliminated under this alternative.
- **Alternative 4: Eliminate East Trail Alternative** includes eliminating the East Trail corridor alignment entirely, including the south staging area. The north staging area and the West Trail would still be constructed along with improvements to the access road. Under this alternative there would be no pedestrian or boat access to the Estero.

These alternatives are discussed as part of the “range of reasonable alternatives” as other meaningful alternatives to the proposed project, which could result in a reduction in project impacts while achieving most of the basic objectives of the project. Each of these project alternatives is described below.

Alternative 1 - No Project Alternative

The No Project Alternative considers the effects of foregoing the project entirely and leaving the project site in its current condition. Under the No Project Alternative, the trails, staging areas, and improvements to the access road would not occur on the project site. The project site would remain unchanged and continue to operate in its existing capacity as a cattle ranch with no change to any aspect of the site.

Under the No Project Alternative, the site would remain in its existing condition, and there would be no ground disturbance, construction, or outside visitors on the project site. There would be no impacts to cultural resources, biological resources, or transportation. There would be no potential to impact special-status species or unknown cultural resources or contribute to a cumulative traffic impact.

The No Project Alternative would produce no visual change in the project area and, thus, would have no aesthetic impacts. Although the proposed project would have less-than-significant impacts to agricultural resources, this alternative would have no activities that would affect livestock, agricultural properties, or grazing land. This alternative would eliminate construction and all traffic associated with construction activities, equipment, and staging areas. There would be no greenhouse gas (GHG) emissions associated with construction or emissions associated with operation including vehicle emissions, grid electricity usage, and solid waste. This alternative would result in no impacts to either air quality or GHG. The exclusion of construction would also avoid any potential groundborne vibration and short-term intermittent noise associated with construction activities. More intensive land uses or noise-generating sources would not be introduced. In addition to construction trips, this alternative would not result in an increase in vehicle and truck trips

associated with visitors and maintenance. This alternative would also eliminate an increase of trips generated on State Route 1 (SR 1), thereby avoiding any increase in turning hazards under cumulative conditions. Overall, this alternative would result in reduced biological and cultural resource and transportation impacts compared to the proposed project.

Relationship to the Proposed Project Objectives

This alternative would not meet any of the project objectives because it would not provide public access to the project site for low-intensity public outdoor recreational and educational purposes, consistent with the District's Grant Agreement with the California Coastal Conservancy. In addition, trails would not be developed that provide a broad public benefit for all ages and cultures and users of varying abilities, as well as balance resource protection with high quality public access and maximize sensitive resource protection. The No Project Alternative would not allow for the creation of pedestrian-only trails that would provide a broad public benefit by supporting interactive educational experiences and public enjoyment and appreciation of the natural, cultural, and scenic resources.

Alternative 2, Docent Only Alternative

Under the Docent Only Alternative, the proposed trails, staging areas, and improvements to the access road would still be constructed. However, only one staging area near the main access gate (northern staging area) would be constructed because the number of people accessing the site would be limited. Both the East and West Trails would be constructed and access to the Estero would be allowed for pedestrians only; no boat access would be permitted under this alternative. Public access on the trails and to the Estero would only be allowed accompanied by a docent approved by County Regional Parks. The access gate would remain locked at all times and would only be opened by the docent. County Regional Parks would provide information and oversee the days/times docent-led tours would occur. The public would be required to pre-arrange a day and time to meet the docent to access the trails.

A comparison of impacts under the Docent Only Alternative and the proposed project is provided below.

Aesthetics

Under the Docent Only Alternative, the project site would be developed in a similar way as the proposed project. The elimination of the southern staging area would reduce land disturbance and the visual impacts of an impervious surface area; however, the southern staging area is less visible than the northern staging that would remain under this alternative. This alternative would reduce the extent of visual changes to the project site, although the same as the proposed project impacts to aesthetics would be less than significant.

Agricultural Resources

Impacts under the Docent Only Alternative would be similar to the proposed project. The proposed project would have less-than-significant impacts regarding the loss or conversion of existing grazing land to accommodate the project. The variation of public access under the Docent Only Alternative would also be consistent with the proposed project and impacts would not change and be less than significant.

Air Quality

Under the Docent Only Alternative, there would be a slight reduction in construction-related and operational emissions than the proposed project because only one staging area would be constructed. However, any heavy construction equipment operation would primarily be used for constructing the access road and staging areas. The elimination of the southern staging area would slightly reduce the amount of heavy equipment required, lowering the potential for construction-related emissions. This alternative would also limit public access, generating fewer vehicle trips associated with site visitors and maintenance. Relative to the proposed project, the Docent Only Alternative would result in a slight reduction in construction and operational criteria pollutant emissions, although impacts would be less than significant the same as the project.

Biological Resources

Under the Docent Only Alternative, the project site would undergo similar construction as proposed under the project with the exception of the southern staging area and pedestrian-only access to the Estero (no boat access would be allowed). This alternative would decrease the number of people using the project site for low-intensity recreational and environmental education uses and require all visitors to be with a docent approved by County Regional Parks. The presence of a docent would prohibit off-trail use of the property, which could result in trampling and/or destruction of special-status plant populations.

This alternative would not include the southern staging area, which is proposed approximately 120 feet south of the existing barn. The barn holds the most potential to host special-status bats. While the barn would not be directly affected by trail construction, bats using the barn could be adversely affected by short-term construction noise and human activities and disturbance. Removal of the southern staging area would further avoid any possible disturbance to bat species and would result in a reducing the severity of the direct and indirect impacts to any protected bat species, as compared to the project.

Recreational use of the Estero for boaters would be eliminated under this alternative. The exclusion of access for boaters to the Estero would ensure that any direct and indirect impacts to the vegetation associated with kayaks or canoes accessing the Estero would be avoided.

Construction activities and operation of the trails would generally still require the implementation of mitigation measures BIO-1 through BIO-13, to avoid/minimize direct and indirect impacts to biological resources. However, mitigation measure BIO-4 Special-Status Bats, may not be required if the southern staging area is not constructed. Potential biological impacts associated with a smaller development footprint and fewer people accessing the trails and the Estero would be similar to those that would occur under the proposed project, although impacts would be slightly less compared to the project and mitigation would still be required.

Cultural Resources

Impacts under the Docent Only Alternative would be similar as under the proposed project. Although the Docent Only Alternative would result in less soil disturbance due to the removal of a staging area. The mitigation measures (CUL-1 through CUL-3), best management practices (BMPs), and regulatory requirements under the proposed project would still apply under the Docent Only Alternative. Therefore, impacts on cultural resources, although slightly less would still require the same mitigation measures and impacts would be less-than-significant with mitigation, the same as the proposed project.

Geology and Soils

The Docent Only Alternative would slightly reduce soil disturbance and the overall project footprint compared to the proposed project due to the removal of the southern staging area. Removal of the staging area would not change the probability or severity of ground shaking, seismic-related ground failure, or landslides. Impacts under this alternative would be minimally reduced compared to the proposed project, although in both cases, impacts would be less than significant.

Greenhouse Gas Emissions

Under the Docent Only Alternative, construction on the site would be similar to the proposed project although the southern staging area would be removed, resulting in a slight reduction in construction-related GHG emissions. Once operational, this alternative would result in a slight reduction in GHG emissions associated with fewer visitor vehicle trips, as public access would be limited. Compared to the proposed project, this alternative would likely result in a reduction in GHG emissions, although in both cases impacts would be less than significant.

Hydrology and Water Quality

Under the Docent Only Alternative, there would be a slight reduction in the amount of construction compared to the proposed project. Construction activities may degrade surface water quality due to stormwater runoff, sedimentation, and potential erosion on hillsides.

Impacts under this alternative would be minimally reduced compared to the proposed project, although in both cases impacts would be less than significant.

Land Use and Planning

Under the Docent Only Alternative, impacts to land use and planning would not differ from the proposed project. This alternative would not create a division within an established community and would be consistent with policies adopted for the purposes of avoiding or minimizing impacts on environmental resources. Impacts would be less than significant, the same as the proposed project.

Noise

Under the Docent Only Alternative, noise impacts would be similar to the proposed project. No substantial periodic increases in noise are expected due to project operation, as neither periodic trail use nor parking lot activities have been shown to generate noise levels at sensitive receptors above existing ambient levels. Construction noise is the only temporary increase in ambient noise that the project could produce. Construction activities would still generate temporary, intermittent noise and limited groundborne vibration that could expose nearby receptors to elevated noise levels. Noise associated with construction would be slightly reduced because construction of the southern staging area would not occur. However, because of the distance between construction and the nearest sensitive receptors, impacts under this alternative would be less than significant, the same as the project.

Public Services and Safety

Under the Docent Only Alternative, public services and safety impacts would be reduced compared to the proposed project. This alternative would decrease the number of people using the project site and require them to be with a docent approved by County Regional Parks. The decrease in the number of people accessing the trails could limit the number of emergency response calls and the potential for illegal activities to occur. Impacts under this alternative would be slightly reduced compared to the proposed project, although in both cases impacts would be less than significant.

Recreation

Under the Docent Only Alternative, recreation impacts would be similar to the proposed project; however, access to the Estero would be limited to hikers. This alternative would provide for low-intensity public outdoor recreational and educational uses on the property consistent with the Trail Easement. Public access to the trails would be more limited than the proposed project and no boat access to the Estero would be permitted. However, this alternative would provide new recreational facilities that would help relieve demand on existing County parks and recreation facilities, the same as the project. Impacts would be less than significant.

Transportation and Traffic

Under the Docent Only Alternative, vehicle trips associated with visitors would be reduced along with a slight reduction in the number of construction-related vehicle trips. However, as safety was a concern for vehicles accessing the project site, the County would still need to take appropriate actions to ensure traffic turning left into the project site would not create a hazardous condition. Reducing the amount of on-site parking and requiring a docent to lead public tours of the trails would limit the number of vehicles accessing the site under Future plus Project conditions and would potentially eliminate the significant and unavoidable impact because it is doubtful the need to construct a left-turn lane would be warranted. Limiting public access would not change impacts related to emergency access or public transit and pedestrian facilities and these impacts would remain less than significant, the same as the project. Impacts to traffic and transportation under this alternative would be reduced compared to the proposed project because there would be fewer vehicles accessing the site and the significant and unavoidable impact would be avoided.

Relationship to the Proposed Project Objectives

This alternative would provide public access from SR 1 to the Estero, consistent with the preservation of natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources. The Docent Only Alternative would still allow for the creation of pedestrian-only trails that would provide a broad public benefit by supporting interactive educational experiences and public enjoyment and appreciation of the natural, cultural, and scenic resources. This alternative would balance sensitive resource protection with high quality public access by providing public enjoyment under docent supervision. However, it would limit public access to docent-led tours, lessening the public enjoyment and appreciation of the natural, cultural and scenic resources of the area because it is anticipated fewer people would be interested in contacting a docent for a tour. In addition, prohibiting boat access to the Estero would not meet the activities permitted in the agreement with the California Coastal Conservancy set forth in the first objective. Overall, this alternative meets a majority of the project objectives but not to the same degree as the project.

Alternative 3, Eliminate Estero Access Alternative

The Eliminate Estero Access Alternative would entail removing the portion of the East Trail that heads directly south to the Estero, as shown on Figure 5-1. All other components of the project would not change under this alternative, including the eastern portion of the East Trail. Removal of the portion of the trail that provides access to the Estero would eliminate boat and pedestrian access to the Estero so no temporary surface protection mat system would be required.

A comparison of impacts under the Eliminate Estero Access Alternative and the proposed project is further discussed below.

Aesthetics

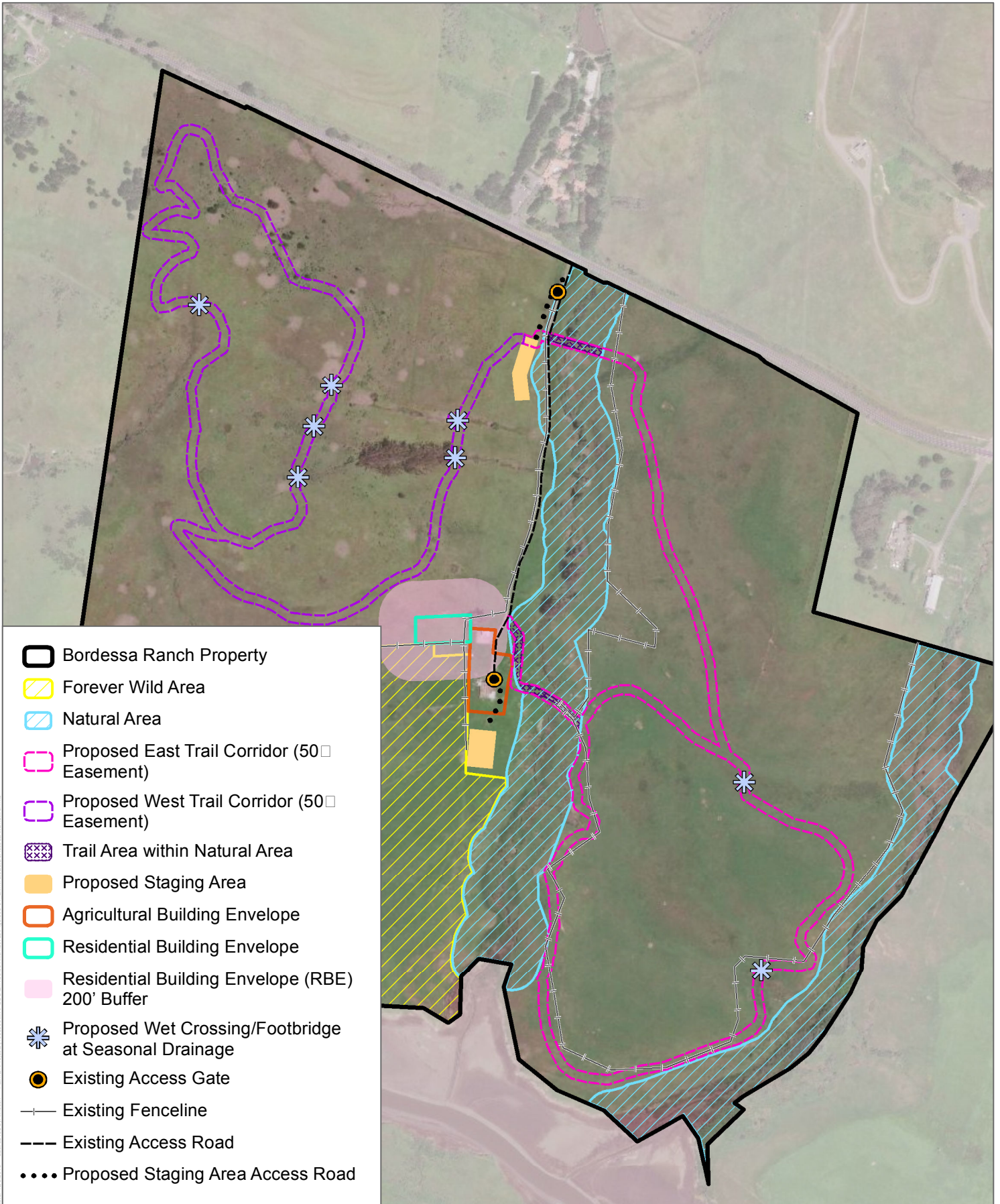
Under the Eliminate Estero Access Alternative, the portion of the East Trail that provides access to the Estero, including the surface protection mat system, and trail signage would not be constructed. This alternative would result in a slightly smaller land disturbance area and less construction-related removal of vegetation to construct this portion of the East Trail than the proposed project. There would be no public access to the Estero under this alternative. Removing the surface protection mat system would maintain the visual consistency of the estuary when viewed from the top of the bluff along the East Trail. This alternative would slightly reduce the extent of visual changes to the project site, although in both cases impacts to aesthetics would be less than significant.

Agricultural Resources

Impacts under the Eliminate Estero Access Alternative would be similar as under the proposed project. The proposed project would have less-than-significant impacts regarding the loss or conversion of existing agricultural resources. The removal of this portion of the East Trail would slightly reduce the amount of land accessible to the public, but in both cases impacts to agricultural resources would be less than significant.

Air Quality

Under the Eliminate Estero Access Alternative, there would be a slight reduction in construction-related emissions than under the proposed project. However, construction equipment would still be required to improve the access road and construct the trails and staging areas; all of these components remain in this alternative. This alternative eliminates a portion of the East Trail and public access to the Estero; which may result in a small reduction in the number of visitors using the trails. Relative to the proposed project, the Eliminate Estero Access Alternative would result in generally the same impacts as under the proposed project, less than significant.



SOURCE: Bing Maps 2018; Sonoma County 2015



FIGURE 5-1

Eliminate Estero Access Alternative

Estero Trail Easement: Designation of Trail Corridors and Associated Staging Areas Project

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Biological Resources

Under the Eliminate Estero Access Alternative, the project site would undergo similar construction as the project with the exception of allowing public access to the Estero and not constructing a portion of the East Trail. The removal of this portion of the East Trail would avoid direct and indirect impacts to vegetation and habitats.

Construction activities and operation of the trails would still require the implementation of mitigation measures BIO-1 through BIO-13, to avoid/minimize direct and indirect impacts to biological resources. Potential biological impacts associated with an incrementally smaller development footprint would be similar to those that would occur under the proposed project, although in both cases impacts would be less than significant with mitigation.

Cultural Resources

Impacts under the Eliminate Estero Access Alternative would be similar as under the proposed project. Although there would be a small reduction in soil disturbance due to the removal of a portion of the East Trail that provides public access to the Estero, this area is not considered sensitive for archaeological or paleontological resources. The mitigation measures (CUL-1 through CUL-3), and regulatory requirements identified under the proposed project would also apply to this alternative. Therefore, impacts on cultural resources would be less than significant with mitigation, the same as the project.

Geology and Soils

Under the Eliminate Estero Access Alternative, soil disturbance and the overall project footprint would be reduced compared to the proposed project due to the removal of the portion of the East Trail that provides public access to the Estero. Removal of this portion of the trail would not change the probability or severity of ground shaking, seismic-related ground failure, or landslides. However, it would slightly decrease the potential for impacts to result from soil erosion, as soils with high erosion hazards are primarily located in the southern portion of the site, near the Estero. Impacts under this alternative would be slightly reduced compared to the proposed project, although in both cases, impacts would be less than significant.

Greenhouse Gas Emissions

Under the Eliminate Estero Access Alternative, construction on the site would be similar to the proposed project although the portion of the East Trail that provides access to the Estero would be removed, resulting in a slight reduction in construction-related GHG emissions. This alternative would likely result in a slight reduction in GHG emissions compared to the proposed project, although in both cases impacts would be less than significant.

Hydrology and Water Quality

Under the Eliminate Estero Access Alternative, the portion of the East Trail that heads directly south to the Estero would be removed, reducing the area of disturbance. Construction activities may degrade surface water quality due to stormwater runoff, sedimentation, and potential erosion on hillsides. Impacts under this alternative would be minimally reduced compared to the proposed project, although in both cases impacts would be less than significant.

Land Use and Planning

Under the Eliminate Estero Access Alternative, impacts to land use and planning would not differ from the proposed project. This alternative would not create a division within an established community and would be consistent with policies adopted for the purposes of avoiding or minimizing impacts on environmental resources. Impacts would be less than significant.

Noise

Under the Eliminate Estero Access Alternative, noise impacts would be similar to the proposed project. Construction noise is the only temporary increase in ambient noise that the project could produce. No substantial periodic increases in noise are expected due to project operation, as neither periodic trail use nor parking lot activities have been shown to generate noise levels above existing ambient levels at any nearby sensitive receptors. Construction activities would still occur on the project site, although the duration of these activities may be slightly shorter without the construction of the East Trail access to the Estero. Construction activities would still generate temporary, intermittent noise and limited groundborne vibration that could expose nearby receptors to elevated noise levels. However, because of the distance between construction and the nearest sensitive receptors, impacts under this alternative would be less than significant the same as the project.

Public Services and Safety

Under the Eliminate Estero Access Alternative, public services and safety impacts would be similar to the proposed project. This alternative would decrease the number of people using the Estero for boating activities. The removal of public access to the Estero could potentially limit the number of emergency response calls to the project site because fewer people may access the trails. However, impacts under this alternative would be the same as the project, less than significant.

Recreation

Under the Eliminate Estero Access Alternative, recreation impacts would be similar to the proposed project. The alternative would still provide for low-intensity public outdoor recreational

and educational uses on the property consistent with the underlying Trail Easement. Although public access to the Estero would be permitted, this alternative would still provide new recreational facilities that would help relieve demand on existing County parks and recreation facilities. Impacts would be less than significant, the same as the project.

Transportation and Traffic

Under this alternative, only those vehicle trips associated with visitors solely intending to access the Estero would be eliminated. This alternative would not significantly change the number of vehicle trips associated with construction and maintenance activities. Eliminating access to the Estero may slightly reduce the number of vehicle trips to the site, but it is anticipated it would not change impacts related to emergency access, or public transit and pedestrian facilities; these impacts would remain less than significant the same as the project. Under Future plus Project conditions the slight reduction in vehicle trips could eliminate the need for a left-turn lane on SR 1 to access the project site. However, because it is not known what the reduction in vehicle trips would be and because both staging areas would still be constructed under this alternative there is the potential under Future plus Project conditions the need for a left-turn would be warranted. Therefore, the significant and unavoidable impact under Future plus Project conditions is anticipated to remain under this alternative the same as the project.

Relationship to the Proposed Project Objectives

This alternative would provide public access consistent with the preservation of natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources. The Eliminate Estero Access would allow for the creation of pedestrian-only trails that would provide a broad public benefit by supporting interactive educational experiences and public enjoyment and appreciation of the natural, cultural, and scenic resources. However, this alternative would not allow pedestrian or boat access to the Estero which would not meet the first objective that would provide access pursuant to the agreement with the Coastal Conservancy that permits access to the Estero. Overall, this alternative meets a majority of the project objectives but not to the same degree as the project.

Alternative 4, Eliminate East Trail Alternative

Alternative 4 includes eliminating the East Trail corridor alignment entirely, including the staging area located in the central portion of the site near the existing barn (south staging area). The staging area located near the main gate/access road into the site would provide the only vehicle parking. The West Trail would still be constructed along with the staging area near the access road as well as improvements to the access road. Under this alternative there would be no access to the Estero allowed and the public would only have access to the West Trail and the northwestern portion of the project site.

A comparison of impacts under the Eliminate East Trail Alternative and the proposed project is provided below.

Aesthetics

This Eliminate East Trail Alternative would not develop the East Trail alignment, including the southern staging area, associated signage, trail markers, posts, benches, fences, gates and bridges. The permanent disturbance area would be less than the proposed project as a decreased amount of vegetation would be cleared to create the approximately 2.75-mile long, trail. The proposed northern staging area, West trailhead, and access road improvements would still be visible from the portion of SR 1 to the north of the site. Although under this alternative the East Trail would not be developed, the change in visual character would not be noticeable to people traveling along SR 1 or any other nearby uses. Impacts to aesthetics would be less than significant under this alternative, the same as the project.

Agricultural Resources

Impacts under the Eliminate East Trail Alternative would be slightly reduced compared to the proposed project because the entire approximately 2.75-mile long East Trail would not be constructed. This alternative would decrease the overall project footprint by not developing the East Trail or the southern staging area. The removal of the East Trail corridor and southern staging area under the Eliminate Estero Access Alternative would reduce the amount of land developed for trails; however, impacts to agricultural resources would be less than significant, the same as the project.

Air Quality

Under the Eliminate East Trail Alternative, there would be a reduction in construction-related and operational emissions than the proposed project. Construction equipment would be used for improvements to the access road, constructing the northern staging area, and the West Trail. The elimination of the south staging area and the East Trail would reduce the amount of construction equipment, lowering the amount of construction-related emissions. This alternative would also decrease the amount of available public access trails and parking, which would result in fewer vehicle trips associated with visitors and maintenance. Relative to the proposed project, the Eliminate East Trail Alternative would result in a reduction in construction and operational criteria pollutant emissions as compared to the project, although impacts would remain less than significant the same as the project.

Biological Resources

Under the Eliminate East Trail Alternative, trail users would be limited to the West Trail. This alternative would decrease the number of people using the project site, as there are less trails available, but may increase use of the West Trail. However, this alternative is not likely to induce greater total numbers of visitors. However, the potential for off-trail use can result in trampling and/or destruction of special-status plant and wildlife populations. Notably, the potential for off-trail use of the East Trail could disturb and/or destroy the pickleweed and other vegetation adjacent to the trail as well as sensitive areas adjacent to the Estero. The elimination of this trail alignment would ensure that any direct and indirect impacts to the vegetation would be avoided as well as sensitive areas near the Estero.

This alternative would not include the southern staging area, which is proposed approximately 120 feet south of the barn. The barn holds the most potential to host special-status bats. While the barn would not be directly affected by trail construction, bats using the barn could be adversely affected by construction noise and human activities and disturbance. Removal of the East Trail would further avoid any possible disturbance to bat species.

The elimination of the East Trail corridor would also reduce the amount of ground disturbance and construction activities, which could result in the disruption and/or destruction of vegetation and wildlife habitat within sensitive natural communities. Mitigation measures BIO-1 through BIO-13 would still be implemented to avoid/minimize direct and indirect impacts to biological resources. However, mitigation measure BIO-4 Special-Status Bats, may not be required if the southern staging area is not constructed. Potential biological impacts associated with a smaller development footprint would be similar to those that would occur under the proposed project; however, removal of the East Trail would result in a reduction in impacts to biological resources as compared to the project. Impacts would remain less than significant with mitigation.

Cultural Resources

Impacts under the Eliminate East Trail Alternative would be similar as under the proposed project. Although the Eliminate East Trail Alternative would result in less soil disturbance due to the removal of the East Trail Corridor and southern staging area, this area is not considered sensitive for archaeological or paleontological resources. However, because there would be less area disturbed under this alternative the potential to unearth subsurface resources would be reduced, as compared to the project. The mitigation measures (CUL-1 through CUL-3) and regulatory requirements under the proposed project would still apply under this alternative. Therefore, impacts on cultural resources would be less than the project, but would still require the same mitigation as the project.

Geology and Soils

Under the Eliminate East Trail Alternative, soil disturbance and the overall project footprint would be significantly reduced compared to the proposed project. Removal of the East Trail corridor and access to the Estero would not change the probability or severity of ground shaking, seismic-related ground failure, or landslides. However, it would decrease the potential impacts from soil erosion as soils with high erosion hazards are primarily located in the southern portion of the site, near the Estero. The removal of the southern staging area and entire East Trail corridor would approximately halve the amount of soil disturbance from the proposed project. Impacts under this alternative would be reduced compared to the proposed project, although in both cases, impacts would be less than significant.

Greenhouse Gas Emissions

Under the Eliminate East Trail Alternative, soil disturbance and the overall project footprint would be significantly reduced compared to the proposed project. The reduction in construction activities would decrease GHG emissions associated with construction equipment and vehicle usage. Emissions associated with vehicle trips would also be reduced due to the potential for a reduction in total visitors. This alternative would result in reduced construction and operational GHG emissions compared to the proposed project, although, impacts would be less than significant in both cases.

Hydrology and Water Quality

Under the Eliminate East Trail Alternative, the removal of the East Trail corridor and southern staging area would significantly reduce the project footprint. This would represent a reduction in temporary soil disturbance associated with construction equipment accessing the area to construct the trails and staging areas. Construction activities may degrade surface water quality due to stormwater runoff, sedimentation, and potential erosion on hillsides. The elimination of the East Trail corridor and southern staging area would decrease both the semi-pervious and impervious surface area; this would lessen stormwater runoff associated with the project. Impacts under this alternative would be reduced compared to the proposed project, although in both cases, impacts would be less than significant.

Land Use and Planning

Under the Eliminate East Trail Alternative, impacts to land use and planning would not differ from the proposed project. This alternative would not create a division within an established community and would be consistent with policies adopted for the purposes of avoiding or minimizing impacts on environmental resources. Impacts would be less than significant.

Noise

Under the Eliminate East Trail Alternative, noise impacts would be marginally reduced compared to the proposed project. Construction noise is the only temporary increase in ambient noise that the project could produce. No substantial periodic increases in noise are expected due to project operation, as neither periodic trail use nor parking lot activities have been shown to generate noise levels above existing ambient levels. Construction noise is expected to be highest during development of the staging areas; therefore, the elimination of the East Trail corridor and southern staging area would reduce the amount of construction-related noise. Construction activities would still generate temporary, intermittent noise and limited groundborne vibration that could expose nearby receptors to elevated noise levels. However, because of the distance between construction activities and the nearest sensitive receptors, impacts under this alternative would be less than significant and similar to the proposed project.

Public Services and Safety

Under the Eliminate East Trail Alternative, public services and safety impacts would be reduced compared to the proposed project. This alternative would potentially decrease the total number of people using the project site for low-intensity recreational and environmental education uses. This decrease would also potentially limit the number of emergency response calls and the potential for illegal activities. Impacts under this alternative would be reduced compared to the proposed project, although in both cases impacts would be less than significant.

Recreation

Under the Eliminate East Trail Alternative, recreation impacts would be similar to the proposed project. This alternative would provide for low-intensity public outdoor recreational and educational uses on the property consistent with the underlying Trail Easement. Although this alternative would provide fewer trail options it would still provide new recreational facilities that would help relieve demand on existing County parks and recreation facilities. Impacts would be less than significant, the same as the project.

Transportation and Traffic

Under the Eliminate East Trail Alternative, vehicle trips associated with visitors and construction activities would be reduced. Less overall construction would be required, lowering the number of construction-related vehicle trips during the spring/summer months. Eliminating the East Trail corridor, southern staging area and access to the Estero would not change impacts related to emergency access or public transit and pedestrian facilities and these impacts would remain less than significant, the same as the project. Impacts under Future plus Project conditions associated with the need to construct a left-turn lane for vehicles to access the site would not occur under this

alternative. Specifically because with the removal of the East Trail and the southern staging area the number of vehicles that could access the site would be substantially reduced as compared to the project. This alternative would eliminate the significant and unavoidable impacts associated with the need to construct a left-turn lane. Overall, traffic impacts would be less than under the proposed project and would be less than significant with mitigation.

Relationship to the Proposed Project Objectives

This alternative would be consistent with the objectives of preserving natural resources and habitat connectivity; open space and scenic views; and existing agricultural resources. This alternative would balance sensitive resource protection with high quality public access within the project site. However, it would limit public access to a smaller area, lessening the public enjoyment and appreciation of the natural, cultural and scenic resources of the area and would not meet the intent of the first objective because it would limit public access as set forth in the agreement with the California Coastal Conservancy.

Summary Matrix

Table 5-1 provides a summary comparison of each alternative with the proposed project. The table also indicates whether the alternative meets the project objectives as defined in Chapter 2, Project Description.

**Table 5-1
Summary of Impacts from Alternatives**

Environmental Issue	Proposed Project Impacts Prior to Mitigation	Proposed Project Impacts with Mitigation	No Project Alternative	Docent Only Alternative	Eliminate Estero Access Alternative	Eliminate East Trail Alternative
Aesthetics	LTS	LTS	▼	▼	▼	▼
Agricultural Resources	LTS	LTS	▼	—	—	—
Air Quality	LTS	LTS	▼	▼	▼	▼
Biological Resources	S	LTS	▼	▼	▼	▼
Cultural Resources	S	LTS	▼	—	—	—
Geology and Soils	LTS	LTS	▼	—	▼	▼
Greenhouse Gas Emissions	LTS	LTS	▼	—	▼	▼
Hydrology and Water Quality	LTS	LTS	▼	▼	▼	▼
Land Use and Planning	LTS	LTS	▼	—	—	—

**Table 5-1
Summary of Impacts from Alternatives**

Environmental Issue	Proposed Project Impacts Prior to Mitigation	Proposed Project Impacts with Mitigation	No Project Alternative	Docent Only Alternative	Eliminate Estero Access Alternative	Eliminate East Trail Alternative
Noise	LTS	LTS	▼	—	—	▼
Public Services and Safety	LTS	LTS	▼	▼	▼	▼
Recreation	LTS	LTS	▼	—	—	—
Transportation and Traffic	S	SU	▼	▼	▼	▼
Meets Most Project Objectives?			No	Yes	Yes	Yes

- ▲ Alternative is likely to result in greater impacts to issue when compared to proposed project.
 — Alternative is likely to result in similar impacts to issue when compared to proposed project.
 ▼ Alternative is likely to result in reduced impacts to issue when compared to proposed project.
 LTS = Less-than-significant impact.
 S = Significant impact.
 SU = Significant and unavoidable impact.

Environmentally Superior Alternative

As indicated in Table 5-1, the No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Eliminate East Trail Alternative, since it would reduce impacts to aesthetics, air quality, geology and soils, GHG emissions, hydrology and water quality, noise, and transportation and traffic when compared to the proposed project. However, it should be noted that the proposed project would not result in any significant impacts after implementation of the required mitigation measures.

The Eliminate East Trail Alternative would be the environmentally superior alternative because it would require the least amount of site disturbance and construction-related emissions and would eliminate the significant and unavoidable traffic impact under Future plus Project conditions. Impacts to biological resources, including the Estero, would also be reduced because no portion of the East Trail would be constructed nor would the southern staging area be constructed. However, this alternative would meet some, but not all of the project objectives.

References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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