SONOMA COUNTY AGRICULTURE PRESERVATION AND OPEN SPACE DISTRICT

DRAFT INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION
WRIGHT HILL RANCH OPEN SPACE PRESERVE MANAGEMENT PLAN

Prepared for:
Sonoma County Agricultural Preservation and Open Space District
747 Mendocino Avenue
Santa Rosa, CA 95401
707.565.7360

SONOMA COUNTY
AGRICULTURAL PRESERVATION
AND OPEN SPACE DISTRICT

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November 2016

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Table of Contents

Page

Tables

Figures

1 Project Information

1. Project Title	Wright Hill Ranch Open Space Preserve Management Plan
2. Lead Agency Name & Address	Sonoma County Agricultural Preservation and Open Space District 747 Mendocino Avenue Santa Rosa, CA 95401
3. Contact Person & Information	Kim Batchelder, Natural Resources Planner
4. Project Location	Wright Hill Ranch Open Space Preserve is located in Sonoma County, approximately three miles southeast of the town of Jenner and one mile inland from the Pacific Ocean and Highway 1
5. Project Sponsor's Name & Address	Sonoma County Agricultural Preservation and Open Space District 747 Mendocino Ave. Santa Rosa, CA 95401
6. General Plan Designation	Public / Quasi Public
7. Zoning	Sonoma County APN 101-150-005/006 Land Extensive Agriculture (LEA), CC B6 160/640 (Ac/DU/Ac) MIN. RC100/50, SR
8. Description of Project	Adopt the Wright Hill Ranch Open Space Preserve Management Plan (Management Plan) to guide preservation, protection, and enhancement of the Wright Hill Ranch Open Space Preserve's biological, ecological, cultural, and historical resources while supporting ongoing grazing. The Management Plan is designed to enhance native habitats and protect sensitive biotic resources; protect cultural resources; restore and maintain Preserve facilities over the long term; and inform future Conservation Easements.
9. Surrounding Land Uses & Setting	Open Space, Rural Residential
10. Other Public Agencies Whose Approval May Be Required	See Section 2.2, Permits and Approvals

1.1 Background and Need

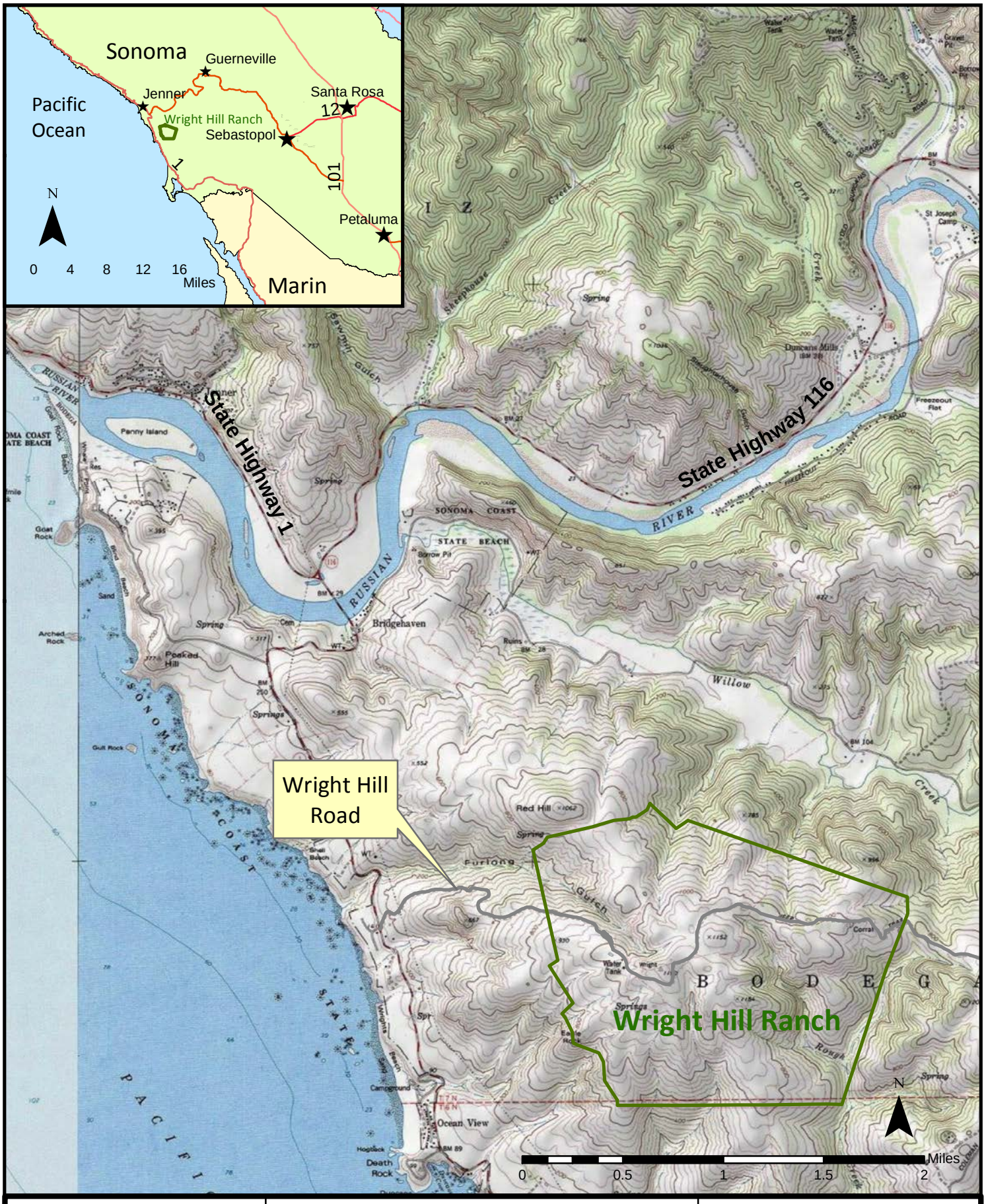
In 2007, the Sonoma County Agricultural Preservation and Open Space District (District) acquired the 1,236-acre Wright Hill Ranch in western Sonoma County to "protect the scenic woodlands, meadows, and critical habitats on the property, as well as to allow for appropriate low-intensity public outdoor recreation." Wright Hill Ranch was identified as a priority acquisition property in multiple regional plans, including the *Sonoma County General Plan.* Additionally, its protection is in accordance with the mandates of the California Department of Parks and Recreation's (CDPR) 2007 *Sonoma Coast State Park General Plan*, which combines natural and cultural resource preservation with public access. CDPR's General Plan specifically notes the Wright Hill Ranch complex buildings are "important in that they are largely intact surviving examples of the kind of complexes that resulted from the farming and ranching enterprises that were commonly active in the region from the latter decades of the 1800s and well into the 20th century."

In addition, acquisition and protection of the property supports many pressing State mandates as well as other key initiatives. For example, the *State of California's Wildlife Action Plan* (SWAP) identifies measures to address threats affecting wildlife and their habitats, including protecting linkages on public lands (CDFW 2007). Management of Wright Hill Ranch as a preserve addresses many of these threats by protecting key wildlife habitats in perpetuity. The acquisition also supports the *California Department of Fish and Wildlife's Vision for Confronting Climate Change in California* (CDFW 2011) by creating a large-scale, well-connected system of conserved lands. Intact and healthy habitats on Wright Hill Ranch support CDFW's goal of promoting resilience to climate change to allow ecosystems to accommodate gradual changes and maintain key ecosystem functions. The property also falls within a critical corridor linking the Coast Range to the north with habitats in Marin – identified in the *Critical Linkages: The Bay Area and Beyond* (Penrod et al. 2013). This linkage is one of many connections that are vital to the preservation of landscape-level processes and the maintenance of wildlife populations.

1.2 Project Location and Setting

Wright Hill Ranch Open Space Preserve is located in Sonoma County, approximately three miles southeast of the town of Jenner and one mile inland from the Pacific Ocean and Highway 1 (Figure 1). The property is situated amid a diverse landscape that represents many of the region's characteristic habitats and native species (Community Foundation of Sonoma County 2009). Topographically diverse as well, the property includes two steep forested gulches, Furlong Gulch and Rough Creek, which ascend from 440 feet in the Rough Creek drainage to Wright Hill near the property's center at 1,190 feet. Connecting the contiguous 7,500-acre Sonoma Coast State Park at Willow Creek with multiple conservation easements and private preserves, Wright Hill Ranch contributes substantially to the region's protected and relatively undeveloped lands.

The District's acquisition of Wright Hill Ranch provides a crucial addition of preserved open space to the adjacent 10,000-acre Sonoma Coast State Park, which borders Wright Hill Ranch to the north and west. The 7,500-acre Willow Creek/Red Hill portion of the Park borders other conserved lands, including the



Map Created: June 28, 2016
By: Prunuske Chatham, Inc.
Data Providers: SCAPOSD, Sonoma County PRMD, Caltrans, US Geological Survey

Figure 1. Wright Hill Ranch Location & Vicinity

PRUNUSKE CHATHAM, INC.

District-held Willow Creek "Seed Orchard" conservation easement northeast of Wright Hill Ranch (305 acres); the Sonoma Land Trust's Freezeout Creek (87 acres); and the 210-acre Mendocino Redwood Company property south of the ridgeline between Freezeout and Willow Creeks, also covered by a District conservation easement (Figure 1).

Wright Hill Ranch Open Space Preserve borders an additional 3,111 acres of conserved land, including the District-held conservation easement on Colliss Ranch to the south (1,578 acres); Rigler easement below Colliss Ranch (415 acres); and Myers Ranch easement (352 acres), as well as Ocean Song Farm and Wilderness Center (161 acres), Sonoma Land Trust's Finley Creek (237 acres), the District's Carrington Ranch (335 acres), and a riparian corridor preserved by the Bodega Land Trust (35 acres). All of these adjacent lands are largely used as open space for recreation and/or natural resource protection.

1.3 California Environmental Quality Act Requirements

Implementation of the Project is subject to the California Environmental Quality Act (CEQA). The Sonoma County Agricultural Preservation and Open Space District is the CEQA lead agency. Prior to making a decision to approve the Management Plan and individual projects, the District must identify and document potentially significant environmental effects from proposed activities in the Management Plan in accordance with CEQA. This Initial Study/Proposed Mitigated Negative Declaration (MND) has been prepared under the direction of the District to fulfill the CEQA requirements.

This Draft Initial Study/Proposed MND will be subject to additional CEQA review and documentation if development of specific project activities or if short- or long-term plan development and subsequent management activities trigger new impacts or increase the severity of an impact. The Management Plan focuses on resource management planning to inform the District about requirements to include in the property's Conservation Easement. Future public access and infrastructure planning is not addressed in the Management Plan and is not included in this document. Therefore, future public access and the specific activities needed to accommodate public access is too speculative to include in this document, and access will be subject to additional CEQA review and documentation should access planning be developed in the future.

This Initial Study/Proposed MND will be circulated for public and agency comment for 30 days from November 22, 2016 to December 21, 2016. Written comments may be emailed, delivered, or mailed to the following address until the close of business on December 21, 2016:

Kim Batchelder, Natural Resources Planner
Sonoma County Agricultural Preservation and Open Space District
747 Mendocino Ave
Santa Rosa, CA 95401

Kim.batchelder@sonoma-county.org

This Initial Study/Proposed MND is intended to satisfy the requirements of CEQA (Public Resources Code [PRC] §§2100-21177) and the State CEQA Guidelines (California Code of Regulations, Title 14, §§15000-15387). Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study are as follows:

Section 15063(d) Contents. An Initial Study shall contain in brief form:

1) A description of the Project including the location of the Project;
2) An identification of the environmental setting;
3) An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
4) A discussion of the ways to mitigate the significant effects identified, if any;
5) An examination of whether the Project would be consistent with existing zoning, plans and other applicable land use controls;
6) The name of the person or persons who prepared or participated in the Initial Study.

2 Project Description

The purpose of the Wright Hill Ranch Open Space Preserve Management Plan (Management Plan) is to guide preservation, protection, and enhancement of the property's conservation values including biological, ecological, cultural, and historical resources. The proposed Management Plan identifies and prioritizes the means to protect and enhance native habitats and protect sensitive biotic resources; protect cultural resources; and restore and maintain Preserve facilities over the long term. The Management Plan briefly describes Preserve features that lend themselves to future public access planning; however, it does not provide specific management activities to allow for or expand future access to the Preserve, upgrade existing roads, and create additional trails for public use. The District's Board of Directors has not made a decision on whether to transfer the property to a recreational entity or when to begin planning for future public access and recreational activities. The current project focuses solely on the protection and management of natural, cultural, and historical resources and activities associated with the protection of ranch resources. Preserve access will require subsequent planning efforts.

The Management Plan's recommendations support the following goals for the property:

1. Protect native biodiversity, natural resources, and ecological functions
2. Preserve cultural and historical resources
3. Conserve and enhance the coastal agricultural heritage of Sonoma County
4. Provide public recreational and educational opportunities

To achieve the management recommendations, the District identified short- and long-term management actions along with avoidance measures needed to protect or enhance resources during implementation of the actions. The objectives, actions, and monitoring tasks described below are designed to support natural processes and to enhance the Preserve's ecological role in the larger landscape while also allowing the preservation of cultural and historical resources, continued grazing, and low-intensity public uses.

Management actions are assigned time frames for implementation and broken down into short-term (1-5 years), long-term (6+ years), and ongoing. Short-term actions are the highest priority management actions that will be undertaken by the District or other land management entity overseeing the property. Long-term activities will be implemented as funding becomes available and after completion of the higher priority actions.

Short-term management actions may begin in the near term but may be ongoing as a means to protect resources. Planning for many of the short-term actions is more advanced than for the long-term activities, having been identified in current site evaluation studies such as recent erosion source studies and grazing fencing need evaluations. The short-term projects are, therefore, evaluated at a site-specific level in this document. The District can implement these actions with little or no further environmental evaluation, as the impacts, avoidance, and mitigations are specifically evaluated for these projects.

Long-term actions are those that would begin in six or more years following adoption of the Management Plan, and many of these actions will also be ongoing. Long-term actions are evaluated at a programmatic-level throughout this Initial Study/Proposed MND, because specific locations, work types, and timing are currently unknown and may require additional planning. The Management Plan identifies numerous monitoring opportunities that would provide additional information on the distribution of wildlife and plant habitat and natural vegetation communities throughout Wright Hill Ranch Open Space Preserve. These monitoring actions are presented in the monitoring section below, but the monitoring activities are not analyzed in this Initial Study/Proposed MND and are provided for informational purposes only.

2.1 Short-term and Site-specific Activities

The following is a discussion of the proposed management activities that will be implemented in the short term (1-5 years).

Property-wide Habitat Management

The objective for property-wide habitat management is to promote land management practices that support the persistence of the Preserve's native plant and wildlife communities. The District has numerous management objectives for habitat conservation and enhancement: 1) restore riparian corridors, 2) limit invasive species establishment through understory native vegetation, 3) restore disturbed areas with native species, and 4) improve wildlife habitat conditions. The following proposed short-term actions may be implemented to meet these objectives:

1. Vegetated buffers will be established between sensitive resources and future public access infrastructure to protect existing riparian, wetland, and other native habitats. Specific buffer widths needed to protect natural resources will vary with site conditions. Generally, the wider the buffer the greater the protection provided to natural resources (Castelle et al. 1994, Leea et al.2004, Osborne and Kovacic 2004). Buffers will be created as follows:

    - 100 feet from the top of bank/edge for riparian and wetland habitats for low to medium impacts
    - 300 feet from the top of bank/edge for riparian and wetland habitats for high impacts
    - 25 feet from the edge of native grasslands, rock outcrops, and viola patches for low to medium impacts
    - 50 feet from the edge of native grasslands, rock outcrops, and viola patches for high impacts
    - Variations from the recommended buffer will require a more thorough assessment and mitigation to ensure natural resources protection

2. Habitat-specific revegetation plans will be prepared by a qualified staff or consultant for all ground disturbing activities and restoration efforts. The revegetation plans will include site preparation methods (soil treatments and invasive species control) as needed, planting

locations, plant species composition, plant collection and propagation protocols, plant protection methods, maintenance and watering protocols, monitoring, and success criteria. Plan for a mixture of native plant lifeforms (e.g., shrubs, vines, perennials, and herbaceous species as well as trees) appropriate to the habitat. Target plant types would include:

- Riparian and wetland protection zone – willows and riparian shrubs
- Forest protection zone – understory herbs, perennials, and shrubs
- Invasive species removal sites – species with similar life history traits to invasive plants, and/or which establish and spread readily
- Erosion sites in drainages and wetlands – perennial rushes, sedges, native perennial grasses, and other rhizomatous species
- Trail and road decommissioning sites – species appropriate to surrounding habitat
- Grasslands – native grasses, annual and perennial forbs

3. Myrtle silverspot butterfly larval host plants' will be used in restoration activities where appropriate.

4. Brush piles and/or large downed limbs will be used around native plantings as an alternative browse protection method and to provide coarse woody material for upland wildlife species.

5. Wildlife-friendly habitat protection fencing will be installed to keep livestock and park visitors from entering restoration areas. Educational signage will also be installed to inform visitors of the restoration efforts.

6. New fencing will be installed or existing fencing repaired to secure property borders and protected areas:

    a. A riparian protection area in Pasture 7 will be created by installing 1,740 feet of wildlife-friendly fencing to keep cattle and visitors from entering the area, and the area will be managed for protection of riparian resources. The protection area will be monitored for invasive plant infestations each spring for the first 5 years after the zone is established, and then every 3 to 5 years thereafter. If monitoring shows an increase in invasive plant populations, short-term flash grazing or other management measures may be implemented as needed for weed control.

    b. A forest protection zone in Pasture 4 will be established through construction of a wildlife-friendly fence to limit cattle from entering the area. Flash grazing may be used as a means to manage vegetation in the forest protection zone if land managers determine it is necessary for resource protection or enhancement.

    c. A 1,900-foot long fence will be installed to protect the south side of Furlong Gulch from potential grazing impacts.

7. Existing springs and other cattle water sources will be fenced following repair or redevelopment of new water sources. Wildlife-friendly fencing will be used.

8. Water sources and other attractants will be used to limit livestock use of coastal scrub areas.

9. Activities will be visually monitored for signs of impacts from livestock grazing or informal trail development on forests (i.e., soil compaction, vegetation trampling, and loss of natural regeneration). If adverse impacts are detected, wildlife-friendly exclusion fencing or signage will be installed as appropriate.

10. A land management entity will survey trails and seasonal closures will be used for chronically wet trails if soil compaction and/or erosion is evident and remediation is not practical. Remediation may include trail relocation, rock crossings, drainage lenses, and other trail structures; however, remediation will be used only if avoidance of impacts is not possible. Seasonal Closure signage will be installed at each entry point of the closed section of trail.

11. Minimize new trails and roads to avoid the following habitats to the extent feasible:
    - Wildlife corridors
    - Grassland areas of high use by grassland wildlife species
    - Native grasslands
    - Rock outcroppings
    - Riparian drainages and wetlands
    - Old bay grove
    - Areas of unstable soils

12. Along with trail erosion monitoring, development of unauthorized trails will be monitored. If found, the trails will be decommissioned promptly by installing physical barriers (e.g., rock piles, downed logs, native thicket- or bramble-forming plants) at each entry point and multiple points along the trail to discourage use. Signage will be installed to inform the public of the closure and the sensitivity of the habitat. If needed, a restoration plan will be developed for disturbed areas in consultation with a restoration specialist.

Invasive Species Management

The objective for management of the Wright Hill Ranch Open Space Preserve is to prevent new infestations of invasive plants and to eradicate and/or control existing invasive plants on the property. The District also intends to prevent the establishment and control existing populations of invasive animal species where feasible. The following proposed short-term actions may be implemented to meet these objectives:

1. Infestations of invasive plants will be controlled or eradicated to the extent feasible. Table 2-1. High-priority Invasive Plant Species Management lists the proposed high-priority, short-term management actions. Management actions will focus on new occurrences, plants at the edge of

an existing infestation, and infestations within high-quality native habitat. The use of herbicides will be limited to spot treatments of high-priority infestations or stump treatments of lower priority infestations and only as part of a an overall integrated pest management approach. Herbicides will be applied following the manufacturers' specifications and following consultation with a licensed Pest Control Advisor (PCA).

- Damage to existing native plants will be avoided during removal of invasive species.
- Invasive plant material with any potential to germinate (e.g., seeds, rhizomes, stem fragments for stoloniferous species) will be removed and burned or disposed of in a landfill. If complete removal from the site is not feasible, propagules may be killed in place (e.g., by covering with plastic to heat or eliminate light) with careful follow-up to ensure success.
- After removal, the disturbed sites will be planted or seeded with genetically appropriate native species as promptly as possible.

2. Invasive plant species populations map will be updated annually.

3. Results of invasive species removal or control efforts will be visually assessed annually to determine effectiveness and identify follow-up needs. In some cases, more detailed, quantitative monitoring may be developed for specific treatment locations to see how density, abundance, and plant community composition have responded to treatment.

Table 2-1. High-priority Invasive Plant Species Management Activities

Latin Name	Common Name	Life Form	Distribution on Wright Hill Ranch Open Space Preserve	Management Actions
Cortaderia jubata	jubata grass	Perennial grass	Limited; riparian habitat	ERADICATE. Previously mapped in two locations along drainages. Remove by digging out.
Delairea odorata	Cape ivy	Vine	Limited; scrub habitat	ERADICATE. Prioritize locations where native trees are threatened or spreading is evident. Remove manually, using caution to avoid leaving plant fragments on-site, or treat with herbicide. Dispose of off-site, or by deep burial or composting on site with careful follow-up to ensure success.
Hedera helix	English ivy	Vine	Limited; forest	ERADICATE. Previously mapped at edge of fir forest in eastern part of property, just north of road. Remove manually; cut any stems climbing trees. Remove all plant parts from property.
Rubus armeniacus	Himalayan blackberry	Shrub	Common; riparian and scrub habitats	CONTROL. Small infestations may be dug out by hand. For large infestations, use of machinery and/or herbicides may be appropriate. If cuttings are made before seed set, debris may be left in piles for wildlife habitat or chipped; otherwise, remove from the property.

Erosion Control and Water Quality Protection

The objective for the erosion control and water quality protection activities on the Wright Hill Ranch Open Space Preserve is to protect soil and water resources by maintaining and improving native vegetation cover and by avoiding future public access infrastructure in riparian or aquatic areas. The following activities may be implemented to meet these objectives:

1. Repair of high-priority gully and roadway erosion sites on the Wright Hill Ranch Open Space Preserve as shown in Table 2-2. Short-term, High-priority Gullies and other Erosion Source Repairs will be completed. These sites are identified on Figure 2. Wright Hill Ranch Erosion Sites.

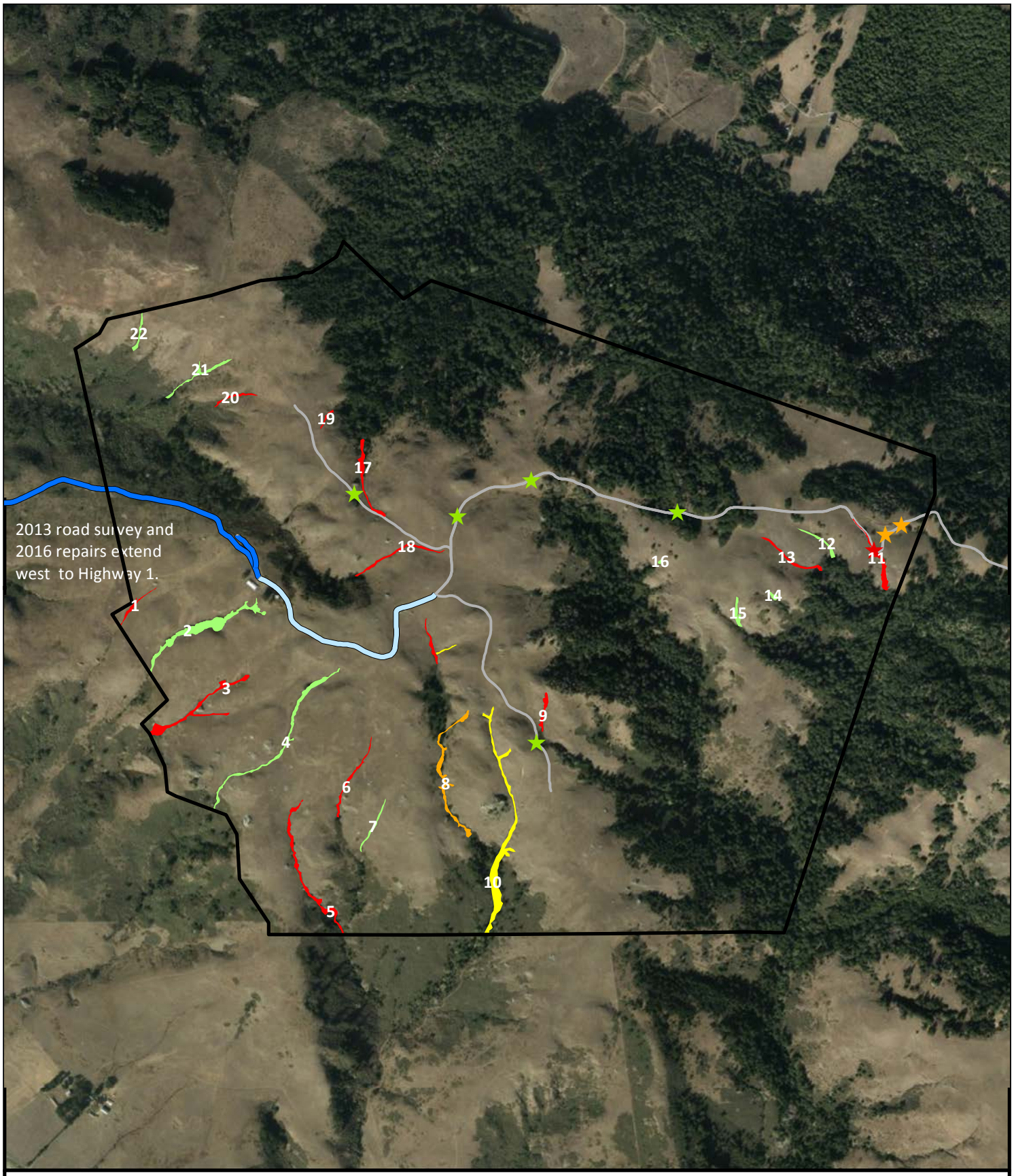


Figure 2. Wright Hill Ranch Erosion Sites

Roads

- Roads - surveyed 2013, repaired summer 2016
- Roads - surveyed 2014, repaired summer 2016
- Other roads

Road erosion sites (2009)

- High priority
- High-medium priority
- Low priority

Gully erosion sites (2009)

- High priority/accessible
- High priority/inaccessible
- Low priority/accessible
- Low priority/inaccessible

Erosion Assessment: PWA 2009, 2013, 2014. 2013 Aerial imagery: Sonoma County Vegetation Mapping and LiDAR Consortium

0 0.25 Miles

N

Table 2-2. Short-term, High-priority Gullies and Other Erosion Source Repairs

Gully #	Gully Length (ft)	Avg. Width (ft)	Avg. Depth (ft)	Knick-points (#)
1	1,100	15	4	7
3	1,700	7	2	4
6	1,000	25	3	4
8A	750	12	3	8
9	400	30	7	0
11	1,000	15	10	7
13	750	10	2	7
17	1,000	30	6	3
19	250	20	4	3
20	100	30	5	2
Total	**8,050**			

2. Soil protection measures will be implemented where ground disturbance is unavoidable. These actions will typically include protecting soil surfaces by seeding or planting promptly with appropriate native species and covering with weed-free straw mulch.

3. Active erosion areas, road drainage outfalls, and culvert crossings will be monitored during periodic storms and each spring and following large storm events to detect critical changes from previously completed erosion source reports. Repairs will be implemented as needed.

4. Restoration plantings will be monitored to determine plant establishment and success. Depending on the nature of the restoration effort, this will include survival counts, plant health and growth assessments, photo monitoring, and/or species composition assessments. Based on the proposed planting type and location, success criteria will vary and will be established in discussion with a qualified restoration specialist. If restoration planting success is low, the situation will be analyzed and followed up with adjusted maintenance efforts or additional plantings. Formal monitoring will occur annually for five or more years after planting to monitor and document planting success. Woody plantings will be monitored in fall, and herbaceous plantings will be monitored in spring. In addition, informal inspection will occur monthly during the growing season in the first one to three years after planting as deemed necessary by the restoration specialist.

Cultural and Historic Resources Management

The objective for cultural and historic resource management is to preserve and maintain the ranch complex for its historic values. The following management actions are proposed to meet these objectives:

1. The ranch complex will require short-term maintenance to ensure the historic nature of the buildings and surrounding landscape retains character and does not degrade. All maintenance activities will be completed under the direction of an archaeologist or resource professional to

ensure that culturally and historically significant resources are protected. Table 2-3. Ranch Complex and Property Maintenance Actions, describes the recommended maintenance measures for the short term. Maintenance activities will be designed and implemented to meet the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Weeks and Grimmer 1995).

Table 2-3. Ranch Complex Building and Property Maintenance Actions

Resource	Short-term Maintenance Actions
Qualifications	• All work on the ranch complex buildings or landscaping will be completed in consultation with and under the direction of a Historic Archaeologist, Historian, or Historic Preservationist. The Historic Archaeologist, Historian, or Historic Preservationist will meet the Secretary of the Interior's Professional Qualification Standards.
House, Shed, and Garage	• Discourage arson or vandalism of buildings prior to preservation work beginning (i.e., erecting protective fencing, if necessary). • Repair rather than replace windows when feasible. • Secure buildings from the elements to minimize deterioration of existing structures. • Repair using in-kind materials or materials chosen by the Historic Archaeologist, Historian, or Historic Preservationist.
Foundations	• Inspect and repair foundations, as needed. Repairs to foundations will be made using in-kind materials. • Protect and maintain buildings and sites by providing proper drainage to prevent erosion to foundation walls, drain water away from the buildings during storm events, and minimize potential for erosion on the landscape.
Landscaping	• Preserve important landscape features including ongoing maintenance of historic plant materials. • Maintain the garden area at the front of the house to establish clear visibility of the building. Existing trees and shrubs will be pruned, as appropriate. Other ornamental plants currently in the yard will be retained; however, those that are overgrown will be thinned, pruned, or otherwise restrained without impacting the historical integrity of the complex. • Disturbance around the buildings will be minimized.
Corrals, Chutes, Fencing Misc. Ranch Features: feeders, troughs	• Corrals and fencing will be maintained with materials similar to the existing fences. Feeders and troughs will be maintained with materials similar to the existing features.

Grazing Management

The objective for grazing management is to maintain grazing at a rate that is compatible with resource protection, promote biodiversity, and enhance other ecosystem services. The following management actions are proposed to meet these objectives:

1. Grazing will continue on the Preserve. A new lease or license agreement will be drafted after water, fencing, and other necessary infrastructure repairs have been completed. The lease conditions will include new recommendations regarding stocking rates and RDM and will allow for stocking rate adjustments based on annual on monitoring results.

2. High-priority water sources will be repaired or replaced as shown in the Table 2-4. High-priority Water Trough Redevelopment or Relocation and Proposed Activities, below and illustrated on Figure 3. Wright Hill Ranch Proposed Pastures.

Table 2-4. High-priority Water Trough Redevelopment or Relocation and Proposed Activities

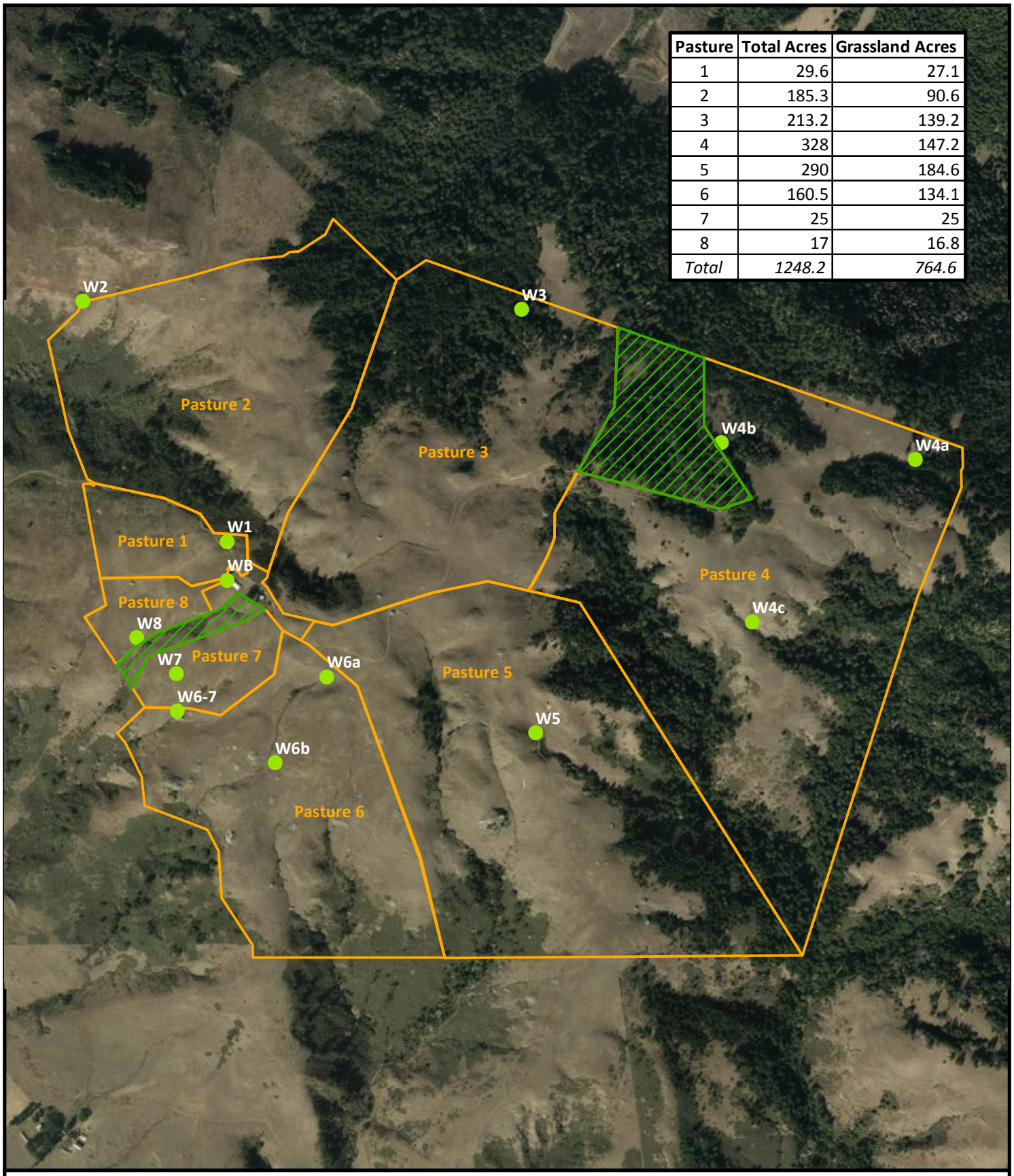
Trough Location	Proposed Restoration Actions
W2	Redevelop spring, including replacing spring box; move trough location about 150 feet southwest away from the fence; replace trough with 300-gallon trough on a rock apron and either pipe overflow to a second trough or back into drainage
W5	Restore spring by excavating and removing old cutoff wall, rebuilding a new one, and replacing the pipe; old bathtub will be replaced with a trough outfitted with a wildlife escape ramp
W4a	Overflow from trough has created muddy area; fence whole spring area; move trough to grassland across drainage near Douglas-fir and bay tree cluster, suspend pipe across drainage; could also add a tank for water storage; add float valve to trough to prevent overflow; overflow from tank will be drained into brushy area
W6a	Replace spring box; redevelop spring

3. High-priority boundary fencing will be repaired or installed as shown in the Table 2.5 below and illustrated on Figure 4. Wright Hill Ranch Existing and Proposed Fencing.

Table 2-5. High-priority Fencing Installation Locations and Proposed Actions

Reach	Section Location	Approx. Length (ft)	Proposed Activities
Unfenced Boundary Sections			
BU1	Northern boundary	7,365	No boundary fence existing, cattle are able to leave the Wright Hill Ranch; construct fencing
BU2	Southern and SE boundary	2,135	No boundary fence existing, which allows cattle to leave the Wright Hill Ranch; construct fencing
Existing Boundary Fencing			
BF3	Southern boundary, just west of SE corner	2,595	Poor condition and only partially intact; not reliably functional; replace fence

4. Grazing impacts will be visually monitored (i.e., soil compaction, vegetation trampling, loss of natural regeneration). Residual dry matter will be monitored where information is available. If negative impacts are detected, wildlife-friendly exclusion fencing will be installed as appropriate.



Pasture	Total Acres	Grassland Acres
1	29.6	27.1
2	185.3	90.6
3	213.2	139.2
4	328	147.2
5	290	184.6
6	160.5	134.1
7	25	25
8	17	16.8
Total	*1248.2*	*764.6*

Figure 3. Wright Hill Ranch Proposed Pastures

Developed water sources

Proposed pastures

Habitat Protection Zone - livestock exclusion; see Figure 11

2013 Aerial imagery: Sonoma County Vegetation Mapping and LiDAR Consortium, NASA, University of Maryland, Watershed Sciences, Inc., Tukman Geospatial LLC

0 0.125 0.25 0.5 Miles

N

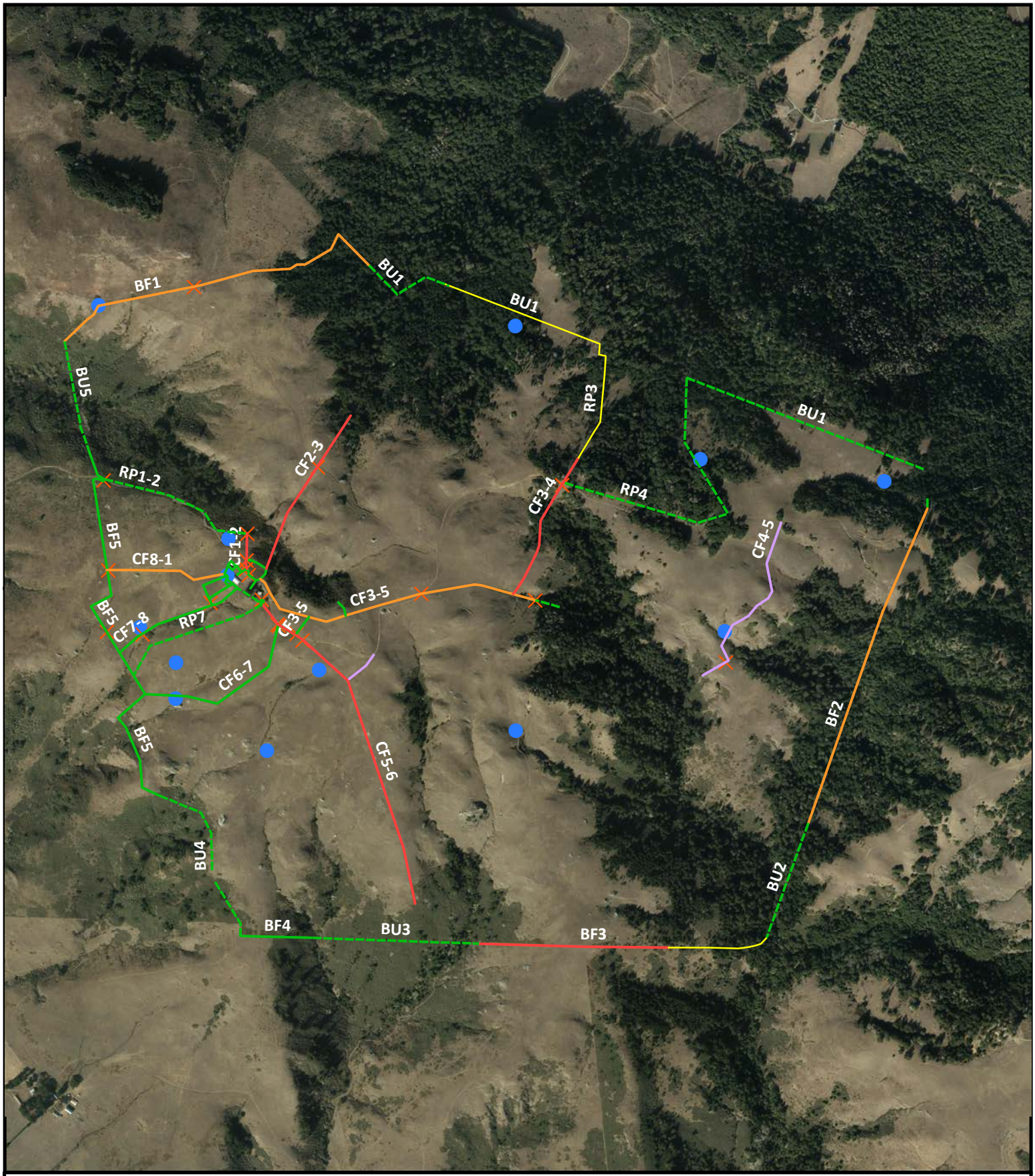


Figure 4. Wright Hill Ranch Existing and Proposed Fencing

- Installation/repairs completed
- Functional
- Functional but needs repair
- Needs repair
- Proposed, wildlife friendly
- Unnecessary
- Gates
- Developed water sources

2013 Aerial Imagery: Sonoma County Vegetation Mapping and LiDAR Consortium, NASA, University of Maryland, Watershed Sciences, Inc., Tukman Geospatial LLC

0 0.125 0.25 0.5 Miles

N

Access Management & Planning

The objective for access management is to improve and maintain ranch roads to provide safe access to the property. The following short-term activities are proposed to meet the objectives:

1. Docent-guided public access on the Preserve will continue.

2. Educational signage will be installed to inform visitors of the natural resources.

Fire Management

The District intends to manage fire to protect natural, tribal, cultural, and historical resources while protecting visitors. The District will implement the following short-term actions to meet these objectives:

1. A no-smoking policy will be instituted for the entire property.

2. Adequate barriers and fences will be provided at trail heads and access points that would keep non-authorized motorized vehicles off the property.

3. Rigorous fire safe standards around structures will be followed. A Historic Archaeologist, Historian, or Historic Preservationist will assist in the evaluation of potential building damage, fire risk, and fuels reduction standards around historic structures.

4. Fire access points and connections between them will be maintained to allow for prompt fire response.

5. The property will be monitored for illegal campfires, firearm use, marijuana cultivation, non-authorized motor vehicle, and smoking. Monitoring will be conducted as part of ongoing, year-round patrols and will include walking the entire property including remote locations where illegal activities may be focused. All areas accessible by trails will be regularly surveyed. Back-country areas will be visited at on a regular basis. If widespread or recurring problems are found, the District or other land management entity will develop a strategy to reduce these illicit behaviors. If marijuana cultivation is found, authorities will be alerted and clean-up and restoration plans will be developed as needed.

2.2 Long-term and Overall Program Management Activities

The following is a discussion of the proposed long-term activities for the Wright Hill Ranch Open Space Preserve. The objectives for each category are the same as those listed above for short-term except where noted. The long-term actions are generally considered lower priority and will be completed as funding sources are identified.

Property-wide Habitat Management

The long-term objective for property-wide habitat management is the same as described for short-term management: support the persistence of the Preserve's native plant and wildlife communities and to promote land management practices protect or enhance the Preserve's native plant and wildlife communities.

Invasive Species Management

The long-term management objective for invasive plant species is the same as that described for the short term. Additional species will be addressed in the long-term invasive species strategy.

1. An invasive species treatment program will be implemented for medium priority species on the Wright Hill Ranch Open Space Preserve as shown in Table 2.6. Long-term Invasive Plant Species Treatments.

2. A long-term monitoring program will be developed and implemented for invasive species treatment to identify new populations of invasive species or to track existing infestations.

Table 2-6. Long-term Invasive Plant Species Treatments

Latin Name	Common Name	Life Form	Distribution on Wright Hill Ranch Open Space Preserve	Actions
Medium Priority				
Carduus pycnocephalus	Italian thistle	Annual herb	Common; disturbed areas of high livestock use in grassland, bay grove, near barn	CONTROL. Manual removal of dense infestations, ensuring root is severed at least several inches below ground.
Conium maculatum	Poison hemlock	Perennial herb	Limited; scrub, riparian	CONTROL. Remove manually, prioritizing isolated infestations or those in high quality native habitat.
Eucalyptus sp.	Eucalyptus	tree	Limited; near house and barn	MONITOR. If seedlings are observed, remove manually and consider removal of mature trees.
Prunus sp.	Wild cherry, plum	Tree	Limited; scrub	ERADICATE. While infestations are still limited, remove by pulling seedlings or cutting below soil level and treating freshly cut stumps with herbicide or covering with black plastic.
Rosa sp.	Ornamental rose	Shrub	Limited; near house and barn	MONITOR. If seedlings are observed, remove both seedlings and mature shrubs, including roots.

Table 2-6. Long-term Invasive Plant Species Treatments

Latin Name	Common Name	Life Form	Distribution on Wright Hill Ranch Open Space Preserve	Actions
Rytidosperma penicillatum, and other non-native grasses	Hairy oat grass	Perennial grass	Widespread; grassland	CONTROL. This is a dominant grass in the grasslands, and, like a number of other non-native grasses present, unlikely to be readily controlled. Consider experimental control via prescribed burns, focused grazing, or herbicide application (or a combination of these methods) followed by seeding or planting in a limited area; if successful, apply to additional areas.
Silybum marianum	Milk thistle	Annual herb	Common; disturbed areas of high livestock use in grassland, including bay grove, near barn, at edges of isolated tree canopies	CONTROL. Manual removal of dense infestations, ensuring root is severed at least several inches below ground.

Erosion Control and Water Quality Protection

1. Erosion control plans will be developed and implemented to address lower priority road and gully erosion sites. These sites are listed in Table 2-7. Long-term Gullies and Other Erosion Sources, and shown on Figure 2. Wright Hill Ranch Erosion Sites.

Table 2-7. Long-term Gullies and Other Erosion Sources

Gully #	Gully Length (ft)	Avg. Width (ft)	Avg. Depth (ft)	Knick-points (#)
2	1500	30	10	0
4	2300	3	1	0
5	1800	25	2.5	0
7	700	10	3	0
12	500	8	3	1
14	150	15	3	3
18	1000	15	5	4
21	700	30	3	3
22	300	10	2	0
Total	**8950**	**146**	**325**	**11**

Grazing Management

The long-term management objective for grazing management is the same as that described for the short term.

1. Moderate to low priority water sources will be repaired as shown in Table 2-8, Medium and Lower Priority Water Source Treatments and illustrated on Figure 3, Wright Hill Ranch ve Proposed Pastures.
2. Wildlife-friendly water troughs will be installed in areas as deemed necessary.
3. The forest and woodlands adjacent to the northwest corner of Pasture 4 will be protected by installing 6,655 feet of fencing (Reach RP4) as shown on Figure 4. Wright Hill Ranch Existing and Proposed Fencing.
4. Forest lands between Pasture 3 and the forest conservation area will be protected by installing 1,320 feet of fencing (Reach CF3-4b) as shown on Figure 4. Wright Hill Ranch Existing and Proposed Fencing.
5. The livestock trail in Pasture 4, near spring W4a, will be redirected by installing 200 feet of fencing as shown on Figure 4. Wright Hill Ranch Existing and Proposed Fencing.
6. Lower priority boundary and cross fencing will be installed or repaired as shown in the following Table 2-9. Long-term Boundary and Cross Fencing, and as shown on Figure 4. Wright Hill Ranch Existing and Proposed Fencing.
7. Fencing will be removed where not necessary to achieve management objectives.

Table 2-8. Medium and Lower Priority Water Source Treatments

Water Trough Location	Repair Priority	Actions
W1	Medium	Inspect and possibly clean spring box; remove tub and pipe; install new pipe and 200-gallon trough on rock pad, extending a minimum of two feet out from trough; move trough location lower and away from spring to old road; check adjacent fenced spring with blackberries if water in main spring is inadequate
W3	Medium	Move trough out of the channel and reset it on a rock pad; add float valve to trough to prevent overflow; overflow from tank will be drained into brushy area
W4b	Medium	Move trough away from the drainage and improve water collection by replacing spring box or installing gravel and filter fabric wrapped perforated pipe in a V shape across slope; install water tank about 150 feet below current trough location, and pipe spring water to tank; reset trough on a gravel pad in open grassland – about 400 feet from current location, following cattle trail; add float valve to trough to prevent overflow
W4c	Medium	Redevelop by moving trough to flat ridge below it to help eliminate the deeply incised cattle trails that fan through this area
W6b	Low	Renovate with drain rock, plastic and new hose
W6/7	Low	Replace trough with rubber 300 gallon trough pipe overflow to another trough or into drainage; reset trough and add rock apron
W7	Low	Use existing trough and move it downhill, off the spring and add rock pad; pipe overflow back into waterway.

Table 2-8. Medium and Lower Priority Water Source Treatments

Water Trough Location	Repair Priority	Actions
W8	Medium	Side hill spring/well needs to be re-drilled or redevelop with perforated pipe or box for collection and trough as described for W1

Table 2-9. Long-term Boundary and Cross Fencing

Reach	Section Location	Approx. Length in Feet	Priority	Comments
Existing Boundary Fencing				
BF1	Northwestern boundary	3,980	Medium	Old and in poor condition but functional; replace after high priority fencing is completed
BF4	Southern boundary, toward west of SW corner	785	Medium	Intact and functional; replace after high-priority fencing is completed
BF5	Western boundary	4,220	Medium	Intact and functional; replace after high-priority fencing is completed
Cross Fencing				
CF3-4	Between Pastures 3 and 4	1,405	Medium	Not functional; should be replaced to create effective pastures
CF3-5	Between Pastures 3 and 5	3,640	Medium	Intact and functional but in poor condition; should be replaced and extended into the steep canyon of Rough Creek to effectively separate Pastures 4 and 5
CF5-6	Between Pastures 5 and 6	3,930	Low	Not functional; should be replaced for pasture creation
CF5-6b	Between Pastures 5 and 6	1,300	Medium	Not functional; should be replaced
CF8-1	Between Pastures 8 and 1	1,370	Low	Possibly remove and create one larger pasture

Cultural and Historical Resources Management

The long-term management objective for cultural and historical resources is the same as that described for the short-term objectives except the long-term objective is to determine the appropriate level of historic preservation is needed.

1. A Historic Structures Report and Treatment Plan will be developed for the ranch complex. The long-term maintenance actions needed to protect the buildings and other ranch complex components will be implemented as funding becomes available.

2.3 Short-term and Long-term Monitoring Activities

The following monitoring activities could be implemented as part of the Management Plan as funding and need develops:

1. A baseline map of Wright Hill Ranch vegetation communities will be developed based on the District-led county-wide vegetation mapping, with the addition of sensitive plant communities. It will be updated every three to five years through a combination of on-the-ground monitoring and aerial image interpretation. If decreases in native habitat extents are detected, possible causes will be evaluated and management strategies adjusted as appropriate.

2. A wildlife habitat use study will be developed to assess key corridors of movement on the property and determine species composition. The study would strengthen the scientific foundation Preserve management. Monitoring will be ongoing to document changes in wildlife use of the property so that management strategies and uses can be adjusted as needed.

3. Annual Christmas Bird Count data collected by Madrone Audubon will be monitored to document trends in recorded species. If changes are detected, evaluate possible causes and adjust management strategies as appropriate.

4. The long-term effects of livestock grazing on native grassland vegetation will be monitored. Formal, quantitative monitoring will be most informative but may be costly to implement unless done in collaboration with existing research efforts by others.

    - Formal monitoring would entail establishment of paired plots of similar grazed and ungrazed (i.e., fenced) grassland. Within each plot; quantitatively assess species composition and abundance each spring.

    - If formal monitoring is not feasible, make annual qualitative observations of species composition and abundance in established grazed locations.

    - If declines in native diversity or abundance are observed, and declines may be linked to grazing practices, alter grazing regime and implement further monitoring to identify grazing practices that will support native species.

5. The following special grassland plant and wildlife populations will be monitored:

    - Rock outcrop flora (where accessible), harlequin lotus, and western dog violet populations to determine whether their extent or composition is changing over time. Use GPS equipment to map, record qualitative descriptions or lists of species present, and/or population size estimates as appropriate. After baseline conditions are established, monitor every three to five years, at the same time each monitoring year, in spring or summer.

- American badger populations to determine whether habitat use and density is changing over time. Use GPS equipment to map and record burrow locations to determine density and population size estimate as appropriate. After baseline conditions are established, monitor every three to five years.

- If declines in special grassland plant or wildlife populations are observed, investigate to determine potential causes. Livestock use and climate change have potential to influence these populations. Installation of exclusionary fencing or educational signage may be needed to protect populations from recreational or livestock use. Monitoring will also be important if grazing is removed from the property, which could result in changes to invasive and native species populations.

6. Coyote brush and Douglas-fir seedlings within patches of native-dominated grassland will be monitored. Every three to five years, map with GPS equipment and/or use aerial imagery if feasible. Currently these woody native species primarily occur outside of native grasslands; if there is any encroachment into native patches, remove by hand. If large-scale removal is needed, methods may include targeted grazing or prescribed burning.

7. Monitor riparian and wetland areas visually at least twice annually, in spring and summer, to ensure that livestock grazing is not resulting in denuded patches (i.e., bare soil visible) or invasive plant infested areas. If so, confer with grazing lessee to reduce or eliminate grazing pressure on these areas and, if needed, treat invasive populations.

8. Invasive wildlife population changes and establishment will be monitored through visual surveys of all habitats on the property. Monitor year-round as part of regular patrols. Also monitor by a qualified biologist annually to provide recommendations to the land managers on existing site conditions, species present, and recommended actions. This monitoring effort could also be conducted in part by volunteers who could be educated about the key invasive wildlife species of concern, signs to watch out for, and reporting requirements. If invasive species are becoming established, participate in local management program(s) (e.g., for wild turkeys and feral pigs) and/or develop a property-specific eradication program.

9. The spread of Sudden Oak Death (SOD) on the property and oak regeneration in infected areas will be monitored. Establish baseline map of SOD infestation with GPS mapping in areas with high concentrations of symptoms. Update the maps every three to five years to determine if additional actions are needed. Evaluate sanitation practices and/or implement trail closures if spreading.

10. In conjunction with SOD mapping, assess infected areas for oak regeneration to determine whether active regeneration is needed to facilitate recovery of woodlands.

2.4 Future Studies

1. A Prescribed Fire Management Plan Feasibility Study may be developed and include the use of grazing as a tool for fuels management.

2.5 Site-specific and Programmatic Environmental Protection Measures and General Program Measures

Management of the Wright Hill Ranch Open Space Preserve is intended to protect and enhance native habitats and protect sensitive biotic resources; protect cultural resources; and potentially expand access to the Preserve, and upgrade existing ranch and access roads. Project implementation will improve water quality and the health of the natural resources and will contribute to sustainable grazing practices. However, any activity that involves work in an area with sensitive resources, no matter what the intent, has the potential for short-term adverse impacts. The following Environmental Protection Measures (Project Measures) were developed to describe the minimum level of impact avoidance and minimization for all ground-disturbing management actions. The Project Measures are an essential part of the Project Description.

Project Measure 1 - Planting and Revegetation after Soil Disturbance for Restoration

The District or other land management entity, to the extent feasible, shall ensure all plants disturbed by management actions will be replaced with native plant species in accordance with the following measures:

- Implement soil protection measures, including seeding or planting promptly with appropriate native species and covering with weed-free straw mulch, and/or installing biodegradable erosion control fabric on slopes.
- Use seed or container stock of local origin for plantings. Seed or propagules for revegetation will be collected from the property itself if a viable source is present. Where this is not possible, propagules shall be from within the lower Russian River watershed or coastal Sonoma County, with exceptions being made only after review by a qualified staff member or consultant. Within these geographic parameters, collections shall be made with the goal of capturing natural genetic variation (e.g., collect from a range of elevations and from plants exhibiting varied phenology).
- Native plant species with high wildlife and/or pollinator values will be used.
- In limited instances, non-invasive, non-persistent grass species (e.g., sterile wheat) may be used in conjunction with native species to provide fast-establishing, temporary cover for erosion control.
- Soil amendments are typically not needed for establishment of native vegetation in intact native soils. If soils have been disturbed and require additional organic matter or nutrients to support native plants, limited organic, weed-free amendments may be used to help establish restoration vegetation. Organic fertilizers may be used only above the normal high water mark of any adjacent waterways. No chemical fertilizers will be used.

- For management actions that have removed native vegetation, post-construction revegetation success will be based on individual site conditions but will generally be based on the following: 1) establishment of native trees and shrubs at a ratio of 1:2 living after five years (or the ratio mandated by regulatory permits), 2) establishment of herbaceous cover equal to that of adjacent undisturbed ground within three years, and 3) no increase in invasive species populations (or no greater cover of invasive species than that of adjacent undisturbed ground).
- If needed, an irrigation system will be installed to ensure establishment of vegetation; when vegetation is sufficiently established, irrigation materials will be removed.

Project Measure 2 - Erosion Control, Sediment Detention, and Site Maintenance

The District or other land management entity shall ensure erosion control, sediment detention, and site maintenance activities will occur in accordance with the following measures:

- All disturbed areas will be protected from erosion. When a project involves grading or work within or adjacent to a stream, waterway, or other sensitive aquatic habitats, a spill prevention and clean-up plan, Stormwater Pollution Prevention Plan, or similar document will be prepared and implemented during construction activities to protect water quality. The plan will address polluted runoff and spill prevention policies, BMPs that are required to be available on site in case of rain or a spill (e.g., straw bales, silt fencing), clean-up and reporting procedures, and locations of refueling and minor maintenance areas.
- All debris, sediment, rubbish, vegetation, or other construction-related materials will be placed in a location approved by District Staff or other land management entity. No materials, including petroleum products, chemicals, silt, fine soils, or substances deleterious to the function of a watercourse, water quality, or biological resources, will be allowed to pass into, or be placed where it can pass into stream channels.
- If rain occurs while materials are temporarily stockpiled, the stockpiles will be covered with plastic that is secured in place to ensure the piles are protected from rain and wind. Silt fencing or wattles will be installed on contour around all stockpile locations.
- Spoil materials from clearing, grubbing, grading, and channel excavation will be disposed of at a site approved by the land management entity.
- Fire-suppression equipment will be reviewed and approved by the land management entity before construction begins and will be available on site at all times.

Project Measure 3 - Pollution Prevention

The District and other land management entity shall employ Best Management Practices for staging, maintenance, fueling, and spill containment of potentially hazardous materials used on the property.

Project Measure 4 - Prevent Spread of Sudden Oak Death

The District or other land management entity shall be responsible for protecting against the spread of Sudden Oak Death through implementation of the following requirements:

- Before purchasing any nursery stock for restoration plantings, confirm that the nursery follows current Best Management Practices for preventing the spread of SOD (consult the California Oak Mortality Task Force, www.suddenoakdeath.org, for current standards). Inspect all plant materials for symptoms of SOD before bringing onto the property.
- Train management staff on host species, symptoms, and disease transmission pathways for *Phytophthora ramorum* and other *Phytophthora* species, and on Best Management Practices to prevent the spread of SOD, including:
  - Clean equipment after working in forest and woodland habitats, including chainsaws, boots, and truck tires (spray with a 10% bleach solution or other disinfectant, then rinse).
  - Work in forest and woodlands in the dry season instead of the wet season when spores are being produced and infections are starting. Avoid or minimize pruning oak, tanoak, and bays in wet weather.
  - Leave potentially infected downed trees on site instead of transporting the material to an uninfected area. Where infection is already known to be present, leaving *P. ramorum*-infected or killed trees on site has not been shown to increase the risk of infection to adjacent trees (COMTF 2008). Removal from the property is only recommended if fire risk is high or for aesthetic, safety, or other reasons. If infected material is removed from the site, dispose of at an approved and permitted facility within the quarantine zone encompassing the 14-county infected quarantine zone.
- If necessary to reduce safety or fire hazards, infected trees can be cut, branches chipped, and wood split. Avoid working in wet weather. Clean equipment after work is completed. Do not leave cut wood and chips in an area where they might be transported to an uninfected location.
- Educate Preserve users about measures to prevent the spread of SOD. Provide signage at major trailheads explaining that SOD occurs on the property, showing typical symptoms and explaining that it can be spread by Preserve visitors, especially in wet winters, during rainy and windy weather. This may be based on existing public educational materials such as those developed by the California Oak Mortality Task Force (COMTF 2008). Request that Preserve visitors:
  - Avoid entering areas that appear to be diseased, especially in wet, muddy conditions. If avoidance is not possible, follow the sanitation practices described below.
  - Stay on established trails and respect trail closures.
- Avoid transporting SOD on shoes, vehicles, or other transport methods (e.g., bike tires or horses, if allowed). After traveling through an infected area, clean up and disinfect. For instance, hikers should remove mud from shoes using an old screwdriver, stiff brush, and/or towel. Further disinfect shoes by washing with soap and water or spraying with a 10% bleach solution.

Project Measure 5 - Pesticide Use

The District or other land management entity shall ensure that any use of pesticides is done according to manufacturers' recommendations and only as part of an integrated pest management strategy designed to protect natural resources and conservation values. Use pesticides with caution to prevent contaminated runoff. A surfactant-free formulation shall be used any time pesticides or herbicides will be used within a riparian area.

Project Measure 6 - General Measures to Avoid Impacts on Biological Resources

The District or other land management entity shall ensure the following biological resources protection measures are used on Wright Hill Ranch Open Space Preserve:

- Perform preconstruction surveys prior to significant ground disturbance within all native habitats, year-round. Surveys (on the day preceding work and/or ahead of the construction crew) shall be performed by a qualified biologist to ensure no special-status species or common wildlife are occupying the area. If wildlife species are observed within the work area or immediate surroundings, these areas must be avoided until the animal(s) has (have) vacated the area, and/or, upon approval by the regulatory agencies, the animal(s) must be relocated out of the area by a qualified biologist.
- Install temporary wildlife exclusionary fencing (e.g., silt fence) during construction around work areas (trails excluded) year-round. This fencing will preclude animals from entering the work area and prevent construction debris, sediment and workers from entering adjacent habitats. Fencing should have one-way escape routes to allow animals to exit the work area and prevent them from re-entering the site. Construction access areas can be left unfenced.
- Conduct a training session for all construction crew personnel before any significant ground disturbance or building work, year-round. The training shall be conducted by a qualified biologist and shall include a discussion of the sensitive biological resources on the property and the potential presence of special-status species. This must include a discussion of special-status species' habitats, protection measures to ensure species are not impacted by project activities, project boundaries, and biological conditions outlined in the project permits, as applicable.

Project Measure 7 – Prevent the Spread of Invasive Species

The District or other land management entity shall prevent the spread of invasive weeds to the extent feasible. Weed control methods shall include, but will not be limited to:

- Clean plant material and soil from the tires and undercarriage of vehicles and equipment (e.g., mowers) that have traveled through weed-infested areas before they leave those areas. Cleaning may be done with a hose if water is available and/or with a scrub brush or stiff broom; see CIPC 2012.
- Train staff and Preserve volunteers to recognize invasive species and report new infestations promptly.

2.6 Permits and Approvals

The table below lists the federal, State, and local regulatory or permitting agencies that may have permitting or approval authority over management activities on the Wright Hill Ranch Open Space Preserve.

Table 2-10. Regulatory/Permitting Agencies

Regulatory/Permitting Agency	Requirement	Potential Permit/Approval
Federal Agency		
U.S. Army Corps of Engineers	Compliance with the Clean Water Act (CWA) Section 404	Approval of fill in waters of the U.S. or jurisdictional wetlands pursuant to the federal Clean Water Act
U.S. Fish and Wildlife Service	Endangered Species Act (ESA) Section 7 consultation	For projects requiring CWA Section 404 permit
State Agencies		
North Coast Regional Water Quality Control Board	Compliance with the CWA Section 401 or State CWA	Water Quality Certification or Waste Discharge Requirements
California Department of Fish and Wildlife	Compliance with Fish and Game Code Section 1600, *et seq.*	Section 1602 Lake and Streambed Alteration Agreement
	Compliance with Fish and Game Code Section 2081	Incidental Take Permit for State-listed wildlife and/or plant species covered under the California ESA
Local and Regional Agencies		
Sonoma County Permit and Resource Management Department	Sonoma County Ordinances	Grading, Building, Roiling, Zoning, and Coastal Development Permits

3 Determination

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

4 Environmental Effects of the Project

4.1 Aesthetics

I. Aesthetics: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

I.a,b,d) Adverse Effect on a Scenic Vista, Scenic Resources, or Visual Character or New Source of Light or Glare – No Impact

Vistas from the Preserve encompass sweeping views of surrounding watersheds and the Pacific Ocean. Connecting the Wright Hill Ranch Open Space Preserve with the contiguous 7,500-acre Sonoma Coast State Park at Willow Creek and other nearby conservation easements and private preserves will contribute substantially to protection of the region's scenic beauty. Long-range views of the Preserve can be seen from Highway 1 and the surrounding properties. The actions identified in the Management Plan will not alter the views from the highway or surrounding areas because the nature and scale of the proposed actions are small and will only be visible in the immediate area around the area. Although the Wright Hill Ranch Open Space Preserve is visible from Highway 1, it is not located along the highway. Therefore, there will be no impact on scenic vistas or scenic resources within a scenic highway.

Management actions will not create new sources of light or glare.

I.c) Adverse Effect on Scenic Resources – Less than Significant

Short-term and long-term management activities on the Wright Hill Ranch Open Space Preserve may result in short-term, small-scale ground disturbance in isolated locations across the Preserve. The disturbance will not substantially degrade the existing visual character of the Preserve because of the size and short-term nature of the actions. Erosion control and native plant revegetation measures will enhance aesthetic values, and vegetated buffers between sensitive resources and Preserve development may also result in improved visual conditions. Therefore, there will be a less-than-significant impact on visual resources.

4.2 Agriculture and Forest Resources

II. Agriculture and Forest Resources: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in PRC §12220(g)), timberland (PRC §4526), or timberland zoned Timberland Production (Government Code §51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?	☐	☐	☐	☒

II.a,b) Convert Farmland to Non-agricultural Uses or Cancel Williamson Act Contract – No Impact

Wright Hill Ranch has been under active agricultural operation since its purchase by W.S.M. Wright in the mid-19th century. Management activities at the Wright Hill Ranch Open Space Preserve will not result in conversion of agricultural land or in cancellation of a Williamson Act contract because grazing will continue with implementation of the Management Plan. Therefore, there will be no impact.

II.c,d,e) Conflict with Zoning, Result in the Loss of Forest Land, or Cause Changes to Non-timberland Uses – No Impact

Actions described in the Management Plan do not conflict with existing zoning. Although there is forestland on the Preserve, the Management Plan does not include actions that will result in loss of forestland or cause changes in agricultural land uses; therefore, there will be no impact.

4.3 Air Quality

III. Air Quality: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

III.a) Conflict with or Obstruct Applicable Air Quality Plan – No Impact

The most recently adopted clean air plan (CAP) is the 2010 Multi-Pollutant Clean Air Plan, which the Northern Sonoma County Air Pollution Control District (NSCAPCD) adopted in September 2010. The CAP was prepared by the Bay Area Air Quality Management District (BAAQMD) in collaboration with regional agency partners. It provides comprehensive guidelines to protect air quality, public health, and the climate. Per BAAQMD's Air Quality CEQA Guidelines, BAAQMD considers a project consistent with the Clean Air Plan if it: 1) can be concluded that a project supports the primary goals of the plan (by showing that the project would not result in significant and unavoidable air quality impacts); 2) includes applicable control measures from the plan; and 3) does not disrupt or hinder implementation of any CAP control measure.

Because implementation of the Wright Hill Ranch Open Space Preserve Management Plan would not result in a significant and unavoidable air quality impact (refer to Impact III.b and III.c below), the project would not conflict with the primary goals of the 2010 Clean Air Plan. The magnitude of operations and planned repairs at Wright Hill Ranch Open Space Preserve is too small to affect air quality or hinder implementation of control measures. The project will not conflict with or obstruct the air quality plan; therefore, there will be no impact.

III.b) Contribute Substantially to an Existing or Projected Air Quality Violation – No Impact

Wright Hill Ranch is in western Sonoma County within the jurisdiction of NSCAPCD, the boundaries of which cover the northern and coastal regions of Sonoma County. NSCAPCD conducts district-specific

planning but also uses relevant planning and information from adjacent BAAQMD, which regulates the southern portion of Sonoma County along with the balance of the San Francisco Bay Area.

Air quality at the Wright Hill Ranch Open Space Preserve is very good. NSCAPCD generally meets air quality standards, and the air at the Preserve gets the first winds off the Pacific Ocean. The main air contaminants are from ranching and cattle, but these are minor and do not detract from the very clean air at the site.

Federal and State governments have set standards for ambient air quality. Monitoring is performed at a variety of locations to check whether those standards are attained. In the NSCAPCD area, monitoring is performed in Guerneville, Cloverdale, and two locations in Healdsburg (CARB 2016). Under the federal and State Clean Air Acts, areas are designated as being in attainment, unclassified, or nonattainment of clean air standards for a set of Criteria Pollutants with known adverse health effects. Allowable pollutant levels and current attainment status for NSCAPCD are shown in Table 4.3-1 below.

Table 4.3-1. Ambient Air Quality Standards and Northern Sonoma County Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	1 Hour	0.09 ppm (180µg/m^3)	A	----------	----------
	8 Hours	0.070 ppm (137µg/m^3)	A	0.070 ppm (137µg/m^3)	U
Carbon Monoxide	8 Hours	9.0 ppm (10 mg/m^3)	U	9 ppm (10 mg/m^3)	U
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m^3)	A	100 ppb (188 µg/m^3)	U
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m^3)	A	75 ppb (196 µg/m^3)	U
Particulate Matter (PM_{10})	24 Hours	50 µg/m^3	A	150 µg/m^3	U
Particulate Matter - Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	A	15 µg/m^3	U
Lead	30-day Average	1.5 µg/m^3	A	-------	
	Calendar Quarter	-------		1.5 µg/m^3	U

The State of California has also designated standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Northern Sonoma County is currently unclassified for all of these pollutants except sulfates which are in attainment.

Source: California Air Resources Board. Compliance designations were current as of December 2015. Ambient Air Quality Standards were current as of May 2016.

NSCAPCD is currently in attainment of, or unclassified for, all federal and State standards (CARB 2016a). Implementation of the Management Plan will not result in violation of any federal or State air quality standards; therefore, there will be no impact.

III. c) Violate Any Air Quality Standard or Result in Cumulatively Considerable Net Increase of Any Criteria Pollutant for which the Region is in Non-Attainment – Less than Significant

In order to reduce levels of pollutants in areas that have nonattainment designations and preserve lower pollutant levels in areas that already meet regulatory limits, air districts are required to generate basin plans. Basin plans establish rules of operation and allowable emission levels to support that particular air district's compliance with the Clean Air Act. NSCAPCD Rule 130 (amended in 2010) established significance thresholds for ongoing emissions of criteria pollutants.

Main sources of air pollutants from implementation of the Wright Hill Ranch Open Space Preserve Management Plan are: construction equipment used for erosion control and other ranch maintenance, fugitive dust from earth-moving activities, property-wide habitat management, invasive species management, grazing management, and vehicle traffic for staff accessing the ranch. Although the purpose and focus of management activities for habitat, invasive species, and grazing are different than existing conditions, the level of effort and corresponding air pollution are generally the same as the current use; therefore, only construction activities, earth-moving activities, and vehicle access are assessed.

Construction equipment typically produces carbon monoxide, nitrogen oxides, and sulfur oxides; these chemicals in turn produce ozone. Construction equipment also emits particulate matter, although the majority of coarse particulate matter emitted from construction is a result of the creation of dust. Particulate matter is measured as particles less than 10 microns wide (PM_{10}) and particles less than 2.5 microns wide ($PM_{2.5}$). Of the Criteria Pollutants, the most serious health concerns are the result of ozone and particulate matter (EPA 2010a).

In the short term, the District contemplates erosion control projects that would address 8,050 linear feet of erosion, or a total of approximately one-third of an acre. Emissions from erosion control activities were assessed using Urbemis 2007 9.2.4 per California Air Resources Board (CARB) recommendations for construction-only projects. Projections include fugitive dust emissions. Table 4.3-2. below shows the NSCAPCD significance thresholds for project emissions and projected emissions from erosion control projects, presuming that projects are reasonably evenly distributed over the 5-year period.

Table 4.3-2. NSAPCD Significance Thresholds and Anticipated Project Emissions

Air Contaminant	Significant Emission Rate	Project Emission Rate
Ozone	40 tons per year (tpy) of volatile organic compounds or nitrogen oxides	1.1 tpy
Carbon monoxide	100 tpy	0.5 tpy
Nitrogen oxide	40 tpy	0.9 tpy
Sulfur dioxide	40 tpy	<0.1 tpy
Particulate matter	25 tpy	0.2 tpy
PM_{10}	15 tpy	0.1 tpy
$PM_{2.5}$	10 tpy of direct PM2.5; 40 tpy of sulfur dioxide; 40 tpy of nitrogen oxide	<0.1 tpy
Lead	0.6 tpy	No lead emissions are anticipated.

Since projected emissions are $1/40^{th}$ or less of the NSCAPCD threshold for significance, impacts will be less-than-significant.

Construction activities will generate fugitive dust, primarily due to grading, vehicle exhaust, and vehicles traveling on paved and unpaved surfaces. Dust emissions associated with implementation activities proposed the Management Plan will be similarly small and not violate an air quality standard because of their characteristics, which include:

- Small size and short duration of construction.
- Remote nature of most work.
- Soil excavation from a site is generally not stockpiled but reused nearby (e.g., as fill to repair gully erosion).
- Exposed soil will not be left unprotected; exposed sites will be planted immediately with species from an approved plant list, or other approved erosion control techniques will be put in place.

Although implementation of erosion control activities will not exceed applicable thresholds, the BAAQMD CEQA Guidelines recommend use of basic construction measures to meet the BMP threshold for projects in the region to control fugitive dust. Therefore, implementation of the recommended basic construction measures to reduce fugitive dust are included in the Project Description as General Construction Measures, see Section 2.50. Implementation of the short-term ground-disturbing work will have a less-than-significant impact on air quality.

In the near term, public access is planned as a continuation of the current docent-guided public access and installation of interpretative signage. Continuation of the current program will not create any substantive increase in vehicle traffic.

In the long-term, the trail system may be expanded. To have an impact on air quality from emissions, the new trail system would exceed 300,000 linear feet. If new trails exceed 300,000 linear feet, additional evaluation and potential emission reduction measure will be identified to keep impacts to less-than-significant levels.

III.d) Expose Sensitive Receptors to Substantial Pollution Concentrations – No Impact

Implementation of erosion control and trail building will generate small quantities of diesel particulate matter from vehicles used in construction. However, given the short time frame needed to implement the small repairs, management actions will not result in substantial pollutant concentrations. Most actions will be constructed using a limited number of diesel-fueled vehicles, and most projects will be completed in a matter of days up to a few weeks for larger, more complicated projects. Additionally, the Preserve does not support sensitive land uses on or in the vicinity of the property, such as hospitals and schools, or uses that are subject to the adverse effects of pollution concentrations; therefore, there will be no impact on sensitive receptors.

III.e) Create Objectionable Odors – Less than Significant

Two sources planned to persist on the Preserve have the capacity to generate odors some people find objectionable: construction equipment and cattle. Although construction equipment used for erosion control and trail work may generate odors, work will occur on rural agricultural lands. The public will be kept away from active construction sites for their safety, so are unlikely to be close enough for the odors to be a problem during the times when construction is underway. These times will be temporary and constitute a small portion of total Preserve use.

Neither kind of odor will leave the property in detectable concentrations. Therefore, any impact will be less than significant.

4.4 Biological Resources

IV. Biological Resources: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) 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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Wright Hill Ranch Open Space Preserve supports coastal grasslands, scrub, woodlands, forests, and wetlands across rolling uplands, shallow to deep canyons, riparian corridors, and rock outcrops. The Preserve supports a wide variety and abundance of wildlife species due in part to this diverse vegetation and topography. At least 354 plant taxa are documented on the property, and 250 of them are native to Sonoma County. Additionally, 86 bird species are documented on the Preserve, and the property also supports potential habitat for 13 reptile, 11 amphibian, and 47 mammal species. The list of species is included in Appendix A. Biological Resources.

Implementation of the short-term, site-specific actions and several of the long-term management and maintenance activities may result in temporary and minor impacts on biological resources. Activities that have potential to result in short-term impacts include soil excavation, grading, preparation of the ground for seeding and mulching, grade and gully stabilization, roadway drainage improvements, vegetation removal, herbicide application, and trampling or crushing of vegetation from equipment and

foot traffic.

On a long-term basis, management of Wright Hill Ranch Open Space Preserve will provide improved aquatic, riparian, and upland habitat and decreased sedimentation in the ephemeral channels on the property to benefit fish, amphibians, reptiles, resident and migratory birds, and many other species on the Preserve, as well as species in the watersheds surrounding the property.

Control of erosion and polluted runoff will improve the quantity and quality of freshwater input into the creeks, streams, and ponds. Removal and control of non-native plant species will reduce the extent to which exotics invade habitat and displace native flora. The net biological benefits that will result from implementation and maintenance of the conservation practices for species include upland habitat values, reduced habitat fragmentation and increased connectivity, maintaining or increasing species populations, and buffering sensitive areas.

IV.a) Impacts on Special-status Species – Less than Significant with Mitigation

The biological evaluations of the Wright Hill Ranch completed between 2009 and 2014 identified the presence of potential habitat for special-status plant and wildlife species, including nesting birds covered under the Migratory Bird Treaty Act (MBTA). Information about special-status species and habitat types within the Preserve and surrounding areas was obtained from the following sources.

- California Natural Diversity Database (CNDDB 2014),
- Sacramento U.S. Fish and Wildlife Service (USFWS) Office of Species Lists (USFWS 2014)
- Field guides and general references for birds, mammals, reptiles, and amphibians (Brown 1997; Jameson and Peters 2004; Jennings and Hayes 1994; Kays and Wilson 2002; Shuford and Gardali 2008; Sibley 2000; Stebbins 2003; Zeiner et al. 1990)
- Local surveys and references for Sonoma County birds (Burridge 1995; Bolander and Parmeter 2000, ebird 2014, USGS 2014).
- U.S. Fish and Wildlife Services (USFWS 2014) online database for federal threatened and endangered species.

Special-status Plants

Special-status plants are those listed as endangered or threatened by USFWS or listed as endangered, threatened, a species-of-special concern, or rare by the State and CDFW. USFWS provides an online service that lists special-status plants and wildlife species for Sonoma County. CDFW provides a similar system known as the California Natural Diversity Database (CNDDB), which also provides information regarding the locations where special-status species have been observed. The California Native Plant Society (CNPS) also has an inventory of rare and endangered plants and a ranking system to categorize the degrees of concern for each plant in its inventory. In summary, plants are ranked as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants that are rare, threatened, or endangered in California and elsewhere;
- Rank 2: Plants that are rare, threatened, or endangered in California but more common elsewhere;

- Rank 3: Plants about which more information is needed; and
- Rank 4: Plants of limited distribution.

Table 4.4-1. Special-status Plants with the Potential to Occur on Wright Hill Ranch Open Space Preserve

Common Name *Scientific Name*	Listing Status USFWS/CDFW /CNPS	General Habitat/Potential for Occurrence
California bottle-brush grass *Elymus californicus*	--/--/4.3	This perennial grass grows at elevations between 15-450 meters in broadleafed upland forest, cismontane woodland, north coast coniferous forest and riparian woodland. It blooms from May to November. This species is a California endemic and is found in Marin, San Mateo, Santa Cruz, and Sonoma counties. This species was observed just north of the property boundary.
harlequin lotus *Hosackia gracilis*	--/--/4.2	This perennial herb grows at elevations between 0-700 meters in wetlands, roadsides, broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, north Coast coniferous forest, valley and foothill grassland. It blooms between March and July. This species is present within the property.
western dog violet *Viola adunca*	--/--/CBR	The western dog violet is the larval host for the federally endangered Myrtle's silverspot butterfly. It grows at elevations between 0-3,566 meters along streambanks and in meadows. This species is found in yellow pine forest, red fir forest, lodgepole forest, redwood forest, mixed evergreen forest, subalpine forest, alpine fell-fields, and wetland-riparian communities. The western dog violet blooms between April and August. This species is present on the property.

Notes: California Native Plant Society

CBR = Considered as a rare plant, but rejected

4 = California Rare Plant Rank 4: Plants of limited distribution

0.1 = Seriously threatened in California; 0.2 = Fairly threatened in California; 0.3= Not very threatened in California

Evaluations of the Wright Hill Ranch Open Space Preserve identified no State or federally listed special-status plants or special-status plant habitat; however, three CNPS-listed plants are present on or adjacent to the property. Implementation of both short-term and long-term management actions could impact these CNPS-listed plants or their habitat if ground-disturbing activities occur in areas that support special-status plant habitat. Management actions associated with gully stabilization, fence installation, and invasive species management could be located in areas that support CNPS-listed species. District or other land management entity staff with expertise in sensitive habitats and special-status species will determine whether sensitive habitats are present within the disturbance area for each ground disturbing activity; see Project Description Project Measure 6 – General Measures to Avoid Impacts on Biological Resources (page 26). The buffers between sensitive habitats will also provide some protection against potential impacts to special-status plant species and their habitats; however, impacts could occur if ground-disturbing management activities result in disturbance in or near occupied or potentially occupied habitat for special-status plants. These impacts could be significant if the plants are affected.

Implementation of Mitigation Measure BIO-1a will reduce potential impacts on special-status plants to a less-than-significant level by requiring preconstruction surveys prior to work in applicable habitats to determine whether special-status plant species are present at or near construction areas and by requiring measures to avoid loss of those species and compensate for losses.

Mitigation Measure BIO-1a: Avoid Loss CNPS Plants and their Habitats

The District and other land management entity shall avoid loss of CNPS Listed-species and occupied or known habitat for these species to the extent feasible. Where avoidance of individuals or habitat is infeasible, District or other land management entity will compensate for loss as required by CDFW.

- If habitat for CNPS plants is not identified during initial site surveys, no further mitigation for impacts on target species is necessary under this measure.
- If suitable habitat is identified, focused surveys will be performed to determine presence or absence of target species wherever habitats for these species will be impacted. Any special-status species found will be documented. The suitable habitat will be avoided through project design, where feasible, and a buffer zone of 50 feet will be established around any special-status plant populations to prevent entry and disturbance during work activities. A qualified biologist will designate the buffer zone if the zone will be less than 50 feet, and the buffer zone distance will be based on the target species and proposed work. The buffer zone will be clearly demarcated with construction fencing and avoided by all construction personnel and equipment.
- If suitable habitat cannot be avoided, project-specific protection measures will be developed with concurrence by CDFW. The following are examples of measures that may be required. CNPS-listed plants within the project footprint may need to be transplanted. Seed from plants unavoidably impacted may need to be collected and preserved for planting.
- Any herbicide application to treat noxious non-native weeds will ensure that no native plants are affected.
- No fertilizers or irrigation will be used within the buffer zone around a special-status plant population.

Special-status Wildlife

Special-status wildlife are those species listed as endangered or threatened by USFWS and wildlife that is listed as endangered, threatened, a species-of-special concern, or rare by the State and CDFW. USFWS and CDFW provide databases for wildlife similar to those described for plants in the section above.

Evaluation of Wright Hill Ranch Open Space Preserve identified the presence of potential habitat for special-status wildlife species, including reptiles, amphibians, mammals, and birds. Special-status wildlife species from the federal and State databases were reviewed for potential presence on Wright Hill Ranch Open Space Preserve and the surrounding landscape. Table 4.4-2. Special-status Wildlife Species with Potential to Occur on the Wright Hill Ranch Open Space Preserve, summarizes the special-status wildlife species that have the potential to occur in the area.

Table 4.4-2. Special-status Wildlife Species with Potential to Occur on the Wright Hill Ranch Open Space Preserve

Common Name Scientific Name	Listing Status USFWS/CDFW/CNPS	General Habitat/Potential Occurrence
Invertebrates		
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE/--/--	Historically, occupied coastal dune, prairie habitat, and bluffs from San Mateo County north to the Russian River in Sonoma County. Four remaining populations occur in western Marin County and southwestern Sonoma County. Larvae typically feed on violets (Viola adunca) where eggs are laid. Adults known to use a number of nectar plants [i.e., gum plant, yellow sand verbena, mints (*Monardella* spp.) seaside daisy, and non-native bull thistle and false dandelion. Suitable larval host plants are known to occur on the property.
Amphibians		
California red-legged frog *Rana draytonii*	FT/SSC/--	Breeding habitat includes marshes, streams, lakes, reservoirs, ponds, and other water sources with plant cover. Breeding occurs in deep, slow-moving waters with dense, shrubby, or emergent vegetation. Breeds November through April depending on location. During the non-breeding season, California red-legged frogs can remain at the breeding site (in the presence or absence of water) or move into surrounding non-breeding habitats. Suitable breeding habitat for this species is largely absent from the property. However, they may use the property as seasonal foraging and aestivation habitat.
Reptiles		
northern western pond turtle *Actinemys marmorata*	Under review for listing/SSC/--	The only native turtle in the San Francisco Bay region. Occurs in or near permanent or semi-permanent water sources (e.g., ponds, lakes, rivers, streams) with suitable basking sites and underwater retreats. There are no documented occurrences for this species within close proximity to the property and limited habitat for this species is present on the property.
Birds		
tricolored blackbird *Agelaius tricolor*	BCC/SSC (nesting colony)/--	Colonial-nesting bird in fields, pastures, and wetlands. Nests in tules, cattails, and to a lesser degree willow and brambles. Breeding occurs from mid-April into late July. Typically forage on the ground in large flocks. Year-round resident in Sonoma County, more common in winter. There are no recently reported sightings within close proximity to the property. Marginally suitable breeding habitat occurs on the property, and they may forage over the site if nesting in adjacent areas.
grasshopper sparrow *Ammodramus savannarum*	--/SSC (nesting)/--	A small, open-country sparrow named for its buzzy insect-like song. Forages for insects and seeds and prefers short to moderate-height, moderately open grasslands with scattered shrubs. Summer resident in Sonoma County in ungrazed or lightly grazed grasslands. Known to occur on the property and observed during the breeding season.

Table 4.4-2. Special-status Wildlife Species with Potential to Occur on the Wright Hill Ranch Open Space Preserve

Common Name Scientific Name	Listing Status USFWS/CDFW/CNPS	General Habitat/Potential Occurrence
burrowing owl *Athene cunicularia*	BCC/SSC (burrowing and some wintering sites)/--	A small, ground-dwelling species of grasslands, prairies, rolling hills, and ranchlands. They are active both day and night and can frequently be seen standing at burrow entrances during the day. Subterranean nesters, use abandoned burrows of ground squirrels and other mammals. Burrowing owls occur in the county during the winter months; this species no longer breeds in Sonoma County. Suitable habitat for this species is present on the property.
marbled murrelet *Brachyramphus marmoratus*	FT/SE (nesting)/--	Seabird that nests inland in old-growth coast redwood and Douglas-fir forests, 150 feet above ground. A solitary or semicolonial nester. Does not touch land. Forages for small fish by diving in the nearshore ocean and harbor entrances. There are no confirmed observations of marbled murrelet in nearby watershed (B. O'Neill pers. comm. 2014); however, comprehensive surveys have not been completed. Potentially suitable breeding habitat is present on the property.
northern harrier *Circus cyaneus*	--/SSC (nesting)/--	An open-country hawk characterized by its low flight pattern. Flies low to the ground foraging on small mammals, birds, amphibians, and reptiles. Nests on the ground within dense or tall vegetation. Year-round resident in Sonoma County in marshes, fields, and grasslands. Northern harriers are known to occur on the property and were observed during winter.
olive-sided flycatcher Contopus cooperi	BCC/SSC (nesting)/--	Flycatcher of mixed coniferous forests. Forages by sallying for insects from high canopy perch. Nests primarily in conifers; however, can be found in a variety of habitats during migration. Nests constructed on a horizontal branch far from trunk. Known for its call – quick-three-beers. Summer resident in Sonoma County. Olive-sided flycatchers are known to occur on the property and were observed during the breeding season.
black swift *Cypseloides niger*	BCC/SSC (nesting)/--	Forages in open sky, preferring mountain country and sea cliffs. Breeds in these habitat types often behind waterfalls in deep canyons and sea-bluffs above the surf. Suitable breeding habitat does not occur within the property; however, swifts may forage over the property.
yellow warbler *Setophaga petechia*	BCC/SSC (nesting)/--	A bright yellow bird of riparian woodlands with willows, alders and/or cottonwoods. Typically nests along stream courses but can occur in a variety of habitats during migration. Nests constructed in fork of a tree or small shrub. Gleans vegetation for insects. Summer resident in Sonoma County in particular along riparian groves. Yellow warblers were observed in low numbers on the property during the breeding season. There is limited habitat present.
white-tailed kite *Elanus leucurus*	--/FP (nesting)/--	Raptor of semi-open areas. Forages for mostly small rodents by hovering and diving. Nests in trees and tall bushes. Year-round resident in Sonoma County in open woodlands, bottomlands, and agricultural grasslands. Suitable habitat for this species is present on the property.

Table 4.4-2. Special-status Wildlife Species with Potential to Occur on the Wright Hill Ranch Open Space Preserve

Common Name Scientific Name	Listing Status USFWS/CDFW/CNPS	General Habitat/Potential Occurrence
osprey *Pandion haliaetus*	--/WL (nesting)/--	Occupies lakes, reservoirs, rivers, estuaries, and open seacoast. Forages exclusively for fish. Nests on exposed treetops or other man-made structures from 10 to 250 feet above ground. Year-round resident in Sonoma County. Suitable breeding habitat is present on the property, but foraging habitat absent. Osprey were observed on the property.
northern spotted owl *Strix occidentalis caurina*	FT/SSC, Candidate ST/--	Dense forest habitats in northern California. Requires multi-layered canopy cover for roosting sites. Breeding sites include tree or snag cavities or broken tops of large trees. Nocturnal hunter eating mostly small mammals. Year-round resident in Sonoma County where it is known from breeding occurrences in old-growth and mixed forest habitats. Suitable habitat for this species occurs on the property and there are multiple documented spotted owl territories in the Willow Creek watershed.
Mammals		
pallid bat *Antrozous pallidus*	--/SSC/--	Grassland, shrubland, forest, and woodland habitats at low elevations up through mixed coniferous forests. A social species forming small colonies. Roosting sites include caves, mines, crevices, buildings, and hollow trees during day, more open sites used at night. Pallid bats may forage on the property and use the existing habitats and structures for roosting. They are documented nearby.
Townsend's big-eared bat *Corynorhinus townsendii*	--/SSC, Candidate ST/--	Low to mid-elevation mesic habitats including riparian, mixed forest, coniferous forest, prairies, and agricultural lands. Utilizes edge habitat for foraging. Roosting sites include caves, mines, tunnels, buildings, and other man-made structures. This species may forage on the property and use the existing habitats and structures for roosting. A large colony of Townsend's big-eared bat was recently documented along the Sonoma Coast in an abandoned building to the south of Wright Hill Ranch (K. Marsh pers. comm. 2014). Species observed near the ranch complex (Wildlife Research Associates 2015).
Sonoma tree vole *Arborimus pomo*	--/SSC/--	A climbing vole which inhabits coastal coniferous forests. Highly specialized feeders eating only conifer leaves. Within California, feed exclusively on Douglas-fir leaves. Nests constructed 6 to 150 feet above ground, typically in conifers. Suitable habitat for this species occurs within the property and there are multiple documented occurrences of this species in close proximity.
American badger *Taxidea taxus*	--/SSC/--	Occurs in a variety of habitat types (e.g. herbaceous, shrub or forest habitats) with dry, friable soils. Badgers are carnivorous and dig their own burrows. They are active year-round, although less active in winter. Young are typically born in early spring. American badgers are known to occur on the property.

Note: Species data from the California Natural Diversity Database, retrieved December 2014. Habitat associations for animals are from the California Wildlife Habitat Relationship Database. Abbreviations used in the tables: E-endangered, T-threatened, R-rare, FP-State of California fully-protected species, SSC-California species of special concern, BCC-Federal Birds of Conservation Concern, WL-Watch List

Invertebrates, Amphibians, and Reptiles

Both short-term and long-term management actions could be located in areas that have habitat for special-status wildlife listed in Table 4.4-2. These species include Myrtle's silverspot butterfly, California red-legged frog, and northern western pond turtle.

Implementation of the vegetated buffers between sensitive resources as presented in the Project Description will protect sensitive invertebrates, amphibians, and reptiles from potential negative impacts associated with existing visitor use by limiting access to habitat for these species. Recognizing the presence of habitat and individual sitings of individuals on Wright Hill Ranch Open Space Preserve, Project Measure 6 – General Measures to Avoid Impacts on Biological Resources is included in the project and is required for all short-term and long-term management actions to protect special-status species. The project measure is presented in the Project Description under Section 2.5 and includes such requirements as the need for a site-specific evaluation of all impact areas to determine whether any natural resources (e.g., sensitive habitat types, special-status species habitat) are present and to identify additional site evaluation requirements based on the site characteristics and the proposed management activity. The Project Measure also includes requirements for use of exclusionary fencing to protect individuals and to prevent access to habitat outside the individual impact area and staff training about sensitive biological resources and the potential presence of special-status species.

The Myrtle's silverspot butterfly host plant is known to inhabit grassland areas of Wright Hill Ranch Open Space Preserve. Suitable breeding habitat for California red-legged frogs is largely absent from the property; however, frogs may use the property as seasonal foraging and aestivation habitat. Occurrences of northern western pond turtle have not been documented; however, there are documented occurrences for this species within close proximity to the property.

Although the Project Measure to avoid impacts on special-status species will be applied to all ground-disturbing management actions on the property, impacts on special-status invertebrates, amphibians, and reptiles could still occur during implementation depending on the location of the management actions and the types of activities proposed in individual areas. The impacts could be significant.

As discussed in the Project Description, short-term management actions include activities in upland grassland, pasture land watercourses to install fencing, restore gullies, relocate water troughs, and stabilize existing roadways. These activities could occur in habitat that supports habitats for special-status species. Long-term management activities could also be located in many of the same habitats as the short-term activities. Therefore, construction-related impacts from both short-term and long-term management activities on species and habitat could result in significant impacts.

Vegetation management activities would include removal of invasive riparian plants and establishment of native vegetation. Mechanical methods and herbicides could be used in locations that support habitat for special-status species, and the impact could be significant.

Implementation of Mitigation Measure BIO-1b through BIO-1d will reduce impacts on special-status invertebrates, amphibians, and reptiles to less-than-significant levels by requiring preconstruction

surveys by a qualified biologist prior to work in applicable habitats to determine whether special-status species are present at or near activities on Wright Hill Ranch Open Space Preserve. These mitigation measures also provide measures to avoid impacts on individuals, as well as a minimum level of compensation for loss of habitat for special-status wildlife species. Where required, a qualified and permitted biologist will relocate listed wildlife to areas that have been predetermined to provide suitable habitat.

Mitigation Measure BIO-1b, Protect Special-status Butterflies

The District and other land management entity shall ensure that the following protection measures for butterflies are implemented for management activities that occur in or near suitable grassland habitat:

- Reconnaissance-level surveys shall be performed by the project biologist to determine whether suitable habitat for Myrtle's silverspot butterflies is present in the activity area. If larval host or nectar plants for listed butterflies are present, and the target species is documented within the project vicinity, the project biologist shall perform a survey to determine presence or absence utilizing widely accepted scientific protocols.
- If suitable habitat for listed butterflies is present, project work shall be carried out with minimum soil compaction and disturbance. Wherever possible, work shall be performed with hand tools. No herbicides or fertilizers shall be used in habitat that supports special-status butterflies.
- Host plants for listed butterflies, including broadleaf stonecrop and *Viola adunca*, shall be protected with a clearly demarcated 25-foot buffer zone.

Mitigation Measure BIO-1c, Protect California Red-legged Frog

The District or other land management entity shall ensure that the following protection measures for California red-legged frog (CRLF) are implemented on the Wright Hill Ranch Open Space Preserve:

- Projects within potential CRLF habitat shall be designed to minimize disturbance to vegetation near or in permanent and seasonal pools of streams, marshes, ponds, or shorelines with extensive emergent or weedy vegetation.
- If a project site occurs in potential CRLF habitat, the project biologist shall conduct a preconstruction survey of all aquatic areas and immediately adjacent uplands with suitable vegetation cover that is potential habitat for CRLF no more than 48 hours before the start of construction activities. The biologist shall look for individual frogs, evaluate the likelihood of usage, and determine if additional biological monitoring is needed during construction to ensure that individuals present shall be removed or avoided.
- The project biologist shall monitor initial ground-disturbing activities within 300 feet of CRLF habitat and shall have the authority to halt work activities that may adversely affect CRLF until they no longer occupy the project area. Relocation of CRLF shall be performed only by individuals approved in advance by CDFW and USFWS.

- If suitable CRLF breeding habitat is present, project activities shall occur between July 1 and October 15 to avoid impacts on breeding CRLF or egg masses.

Mitigation Measure BIO-1d, Protect Northern Western Pond Turtle

The District or other land management entity shall ensure that the following protection measures for northern western pond turtles are implemented for activities in or near its habitat:

- A preconstruction survey for adult northern western pond turtles and nest sites shall occur prior to beginning work for all projects within or near streams and other permanent water bodies. Any adults found within the work area shall be relocated to suitable off-site habitat. Nest sites discovered during the preconstruction survey or anytime during construction shall be avoided until vacated, as determined by the project biologist. Ongoing monitoring shall occur during construction to ensure no turtles have moved back into the area.

Special-status Birds, Migratory Birds, and Raptors

Trees, shrubs, and grasslands on the Wright Hill Ranch Open Space Preserve provide potential habitat for special-status bird species, including northern spotted owl, marbled murrelet, osprey, northern harrier, white-tailed kite, yellow warbler, burrowing owl, grasshopper sparrow, olive-sided flycatcher, black swift, tricolored blackbird, as well as nesting raptors and migratory birds. Construction of the both short-term and long-term management activities could result in tree removal or trimming, which could result in impacts on nesting special-status birds if present in and near the work area. Activities resulting in ground disturbance in grasslands could harm nests or individual birds, and construction noise could also disturb nesting birds in trees near construction sites. Potential impacts on special-status and migratory bird nests could result from destruction of eggs or occupied nests, mortality of young, and abandonment of nests with eggs or young birds prior to fledging. Such potential impacts on nesting special-status and migratory birds could be significant.

Implementation of the vegetated buffers between sensitive resources as presented in the Project Description will protect sensitive invertebrates, amphibians, and reptiles from potential negative impacts associated with existing visitor use by limiting access to habitat for these species. Future preserve infrastructure will be subject to the same buffer requirements.

Implementation of Mitigation Measures BIO-1e will mitigate potential impacts on nesting birds to less-than-significant levels by requiring preconstruction surveys by a qualified biologist to determine if nesting birds are present at or near management activity sites and by identifying exclusionary zones around the nests or delaying work until the breeding season is over or nesting is complete.

Mitigation Measure BIO-1e, Protect Nesting Birds during Construction and Other Management Activities

The District or other land management entity shall ensure that the following protection measures for nesting birds are implemented for ground disturbing or vegetation management activities:

- Work outside of the critical breeding bird period (March 1 through August 31) for construction projects and during ongoing land management (e.g., vegetation removal, etc.). If activities must occur during this period, work areas shall be surveyed by a qualified biologist prior to commencing. Surveys shall be required for all human-related ground disturbance activities in natural habitats, and for vegetation trimming and removal. For ongoing land management (e.g., trail clearing, vegetation removal, mowing, building retrofits), trained land management entity staff shall be qualified to complete the surveys. If active nests or behavior indicative of nesting are encountered, those areas plus a 50-foot buffer for small songbirds and 250-foot buffer for larger birds (e.g., owls, raptors) shall be avoided until the nests have been vacated. If the work areas are left unattended for more than one week following the initial surveys, additional surveys shall be completed.
- Preconstruction breeding bird surveys shall be completed for projects occurring from mid-March through mid-August for special-status birds, migratory birds, and raptors. The surveys shall be conducted within two weeks prior to initiation of vegetation clearing, tree removal and trimming, or other construction activities. If the biologist finds no active nesting or breeding activity, work can proceed without restrictions.
- If active raptor or owl nests are identified within 100 feet of the construction area or active nests of other special-status birds (e.g., passerines, woodpeckers, hummingbirds, etc.) are identified within 50 feet of the construction area, a qualified biologist shall determine whether or not construction activities may impact the active nest or disrupt reproductive behavior. If it is determined that construction would not affect an active nest or disrupt breeding behavior, construction can proceed without restrictions. The determination of disruption shall be based on the species' sensitivity to disturbance, which can vary among species; the level of noise or construction disturbance; and the line of sight between the nest and the disturbance.
- If the project biologist determines that construction activities would likely disrupt breeding or nesting activities, a no-disturbance buffer shall be placed around the nesting location. The buffer shall include the active nest or breeding areas plus a 50-foot buffer for small songbirds and a 100-foot buffer for larger birds (e.g., owls, raptors). Construction activities in the no-disturbance buffers shall be avoided until the nests have been vacated.
- If the site is left unattended for more than one week following the initial surveys, additional surveys shall be completed. Ongoing construction monitoring shall occur to ensure no nesting activity is disturbed. If State and/or federally listed birds are found breeding within the area, activities shall be halted, and consultation with the CDFW and USFWS shall occur.

Northern Spotted Owls and Marbled Murrelet

Northern spotted owls and marbled murrelets nest in old growth redwood and Douglas-fir forests such as the old growth forest on Wright Hill Ranch Open Space Preserve. The proposed short-term management activities will not occur within habitat for these species, and construction of the fencing to keep cattle from entering forestlands will improve conditions. Long-term management activities

associated with the potential trail construction would require additional analysis to determine potential impacts with potential increased human presence in the forests on the property.

Implementation of the short-term management actions may impact nesting birds if construction activity occurs within 0.5 acre of an active nest during the breeding season, and the impact could be significant. Implementation of Mitigation Measure BIO-1f will mitigate potential impacts on northern spotted owls (NSO) to less-than-significant levels by requiring preconstruction surveys by a qualified biologist to determine if nesting NSO are present at or near management activity sites and by identifying exclusionary zones around the nests or delaying work until the breeding season is over or nesting is complete.

Mitigation Measure BIO-1f, Protect Northern Spotted Owl and Marbled Murrelet

The District or other land management entity shall ensure that the following protection measures for the protection of northern spotted owls (NSO) and marbled murrelet nesting birds are implemented for ground disturbing management activities:

- Assume presence of northern spotted owl in Douglas-fir, redwood, and mixed hardwood habitats on the property. If future activities are proposed within these habitats, focused surveys shall be completed to determine species presence and activity centers and avoidance measures and/or mitigation measures will need to be developed in consultation with USFWS and/or CDFW.
- Breeding northern spotted owls shall be protected in accordance with the *Measures to Protect Nesting Birds* above. Protection shall include focused breeding owl surveys for projects occurring from March 1 through August 31 in areas of suitable forested and woodland habitat and within 1 mile of a documented owl occurrence (USFWS 2011).
- If NSO are determined to be present during the breeding season within 0.5 miles of the work area, no work shall occur between March 1 and August 31 or until nesting completion has been verified by the project biologist.
- No management activities shall occur within 0.25 mile of occupied marbled murrelet habitat from April 1 to September 30 during the daily peak activity period (one hour before official sunrise to two hours after official sunrise, and one hour before official sunset to one hour after official sunset in the critical marble murrelet nesting season.
- If the absence of NSO and/or marbled murrelet cannot be verified, the species shall be assumed to be present and either: 1) the work shall be performed after August 31, or 2) sound reduction measures shall be implemented in consultation with the project biologist, CDFW, and USFWS to ensure activities do not significantly raise noise above ambient levels.
- No trees or understory vegetation shall be removed within 500 feet of a documented active breeding location for NSO or marbled murrelet (either through previously confirmed sightings or project-specific verification by the project biologist).
- For projects proposed during the non-breeding season in suitable habitat, construction activities shall be overseen by the project biologist to ensure roosting and foraging birds are not being impacted.

Sonoma Tree Vole

The Sonoma tree vole is listed as a State species of special concern by CDFW. Short-term and long-term management activities that occur in Douglas-fir forest on the property could impact the Sonoma tree vole. Tree removal or other tree-related impacts on Sonoma tree vole could occur, and the impact could be significant.

Implementation of Mitigation Measure BIO-1g will reduce impacts on Sonoma tree voles to less-than-significant levels by requiring preconstruction surveys and implementation of buffers to protect nests during construction activities.

Mitigation Measure BIO-1g, Protect Sonoma Tree Vole

The District or other land management entity shall ensure that the following measures for the protection of Sonoma tree vole are implemented for short-term and long-term management activities that impact trees in Douglas fir forest:

- For all projects requiring removal of Douglas-fir trees, a preconstruction survey for Sonoma tree vole shall occur prior to beginning work.
- If occupied trees or nests are identified within 100 feet of the activity area, the project biologist shall determine whether or not construction activities may impact the voles. If it is determined that construction would not affect tree voles, construction can proceed without restrictions. The determination of disruption shall be based on the level of noise or construction disturbance and the line of sight between the tree and the disturbance.
- If the project biologist determines that construction activities would likely disrupt tree voles, a no-disturbance buffer shall be placed around the occupied tree locations. The no-disturbance buffer shall include the occupied tree plus a 50-foot buffer. Construction activities in the no-disturbance buffer shall be avoided until the tree is unoccupied as determined by the project biologist.

Special-status Bats

Trees, culverts, and buildings on the Preserve could provide potential habitat for special-status bat species, including pallid and Townsend's big-eared bats. The pallid bat is listed as a species of special concern by CDFW, and Townsend's big-eared bat is a species of special concern and a candidate for a threatened listing under the California Endangered Species Act. These bats can be found in a variety of habitats present on the Wright Hill Ranch Open Space Preserve: forest and woodlands, riparian forests, mixed forests, and grasslands. Impacts on bats could result from removal or trimming of trees and removal of bridges and large culverts. A large colony of Townsend's big-eared bats was recently documented along the Sonoma Coast in an abandoned building to the south of Wright Hill Ranch Open Space Preserve (K. Marsh pers. comm. 2014), and the species was observed near the ranch complex (Wildlife Research Associates 2015). Potential impacts on special-status bats could be significant during implementation of the short-term and long-term management actions that require tree cutting or involve maintenance activities in or around the buildings on the property. Long-term visitor access to the buildings will require additional evaluation and determination of impacts on bats.

Implementation of Mitigation Measure BIO-1h will reduce impacts on special-status bat species to less-than-significant levels by requiring preconstruction surveys and avoidance of disturbance on roosting bats.

Mitigation Measure BIO-1h, Protect Special-status Bats

The District or any land management entity shall ensure that the following protection measures for bats are implemented management activities at Wright Hill Ranch Open Space Preserve:

- Complete presence/negative finding bat surveys prior to disturbance of any trees potentially supporting bat roosts. Surveys shall be completed by a qualified bat biologist. These surveys will include surveys of any trees subject to removal or significant trimming. Because each individual bat species may use different roosts seasonally and from night to day, surveys must be conducted by a qualified biologist at the appropriate times. If active tree roosts are identified on the property, appropriate avoidance measures should be developed. This may include seasonal limitations on work when roosts are unoccupied.
- For all tree removal, trees shall be taken down in a two-step process – limb removal on day one shall be followed by bole removal on day two. This approach will allow bats an opportunity to move out of the area prior to completing removal of the trees. No trees supporting special-status bats shall be removed without prior consultation with CDFW.
- If work is postponed or interrupted for more than two weeks from the date of the initial bat survey, the preconstruction survey shall be repeated.
- Construction shall be limited to daylight hours to avoid interference with the foraging abilities of bats.
- Consult with CDFW and/or a qualified bat biologist prior to completing repairs or renovations to the ranch house and all of the surrounding structures. Visitation and repairs to the ranch house shall be minimized until resource protection measures are developed, and these measures may include, but shall not be limited to:
    - Appropriate methods to remove bats
    - Means to exclude bats from reentering while repairs and renovation work is underway.

American Badger

The American badger is listed as a State species of special concern by CDFW. Construction of both short-term and long-term management activities such as trail development, fencepost installation, or gully stabilization, and other erosion control measures could impact this species if burrows are encountered and damaged during ground-disturbing activities. American badger burrows may be located in grasslands and low-growing vegetation habitats throughout the Wright Hill Ranch Open Space Preserve. Impacts on this species could be significant.

Implementation of Mitigation Measure BIO-1i will reduce impacts on badger burrows to less-than-significant levels by requiring preconstruction surveys and implementation of buffers to protect burrows during construction activities.

Mitigation Measure BIO-1i, Protect American Badger

The District and other land management entity shall ensure that the following protection measures for American badgers are implemented on the Wright Hill Ranch Open Space Preserve:

- For all projects requiring disturbance to open grasslands or low-growing vegetation habitats, a preconstruction survey for American badger shall occur prior to beginning work. If any badger dens are documented within the project area or within 500 feet of it, buffer zones shall be established and maintained until the badgers have vacated the area. A qualified biologist shall determine the appropriate setbacks, no work shall occur within the buffer zone until the area is cleared by the biologist. Additional protection measures may be required and shall be developed in consultation with CDFW; they may include larger buffer zones or relocations, as appropriate.

IV.b) Impacts on Riparian or Sensitive Natural Communities – Less than Significant

Sensitive natural communities on the Wright Hill Ranch Open Space Preserve include riparian areas, oak woodland, native grasslands, mixed evergreen forests, and native grasslands. Both short-term and long-term management practices are designed to improve site conditions in riparian and sensitive natural communities on the property. Native grassland and natural communities plantings will improve conditions. Implementation of the buffer as described in the project description will also provide protection of these sensitive resources.

BMPs, including the requirement to replant areas affected during construction of short- and long-term management activities are included as part of the project and described in the Project Description. Strict adherence to the BMPs will keep potential impacts on riparian communities to less than significant during construction or management actions by limiting the disturbance and requiring revegetation with appropriate native plantings following these activities. The impacts would be less than significant.

IV.c) Impacts on Waters of the U.S. or Jurisdictional Wetlands – Less than Significant with Mitigation

Sonoma County and both State and federal regulations require conservation of wetlands and compliance with a no-net loss policy through avoidance of sensitive habitats and compensatory mitigation such as enhancement or restoration.

Some short-term and long-term erosion control and native vegetation plantings could be implemented within jurisdictional waters or wetlands. Both short-term and long-term gully repair and roadway and trail drainage improvement activities could result in temporary disturbance and potential fill of federally and State-protected wetlands. By their nature, in-channel stabilization and roadway improvements will be located in or near stream channels and could impact adjacent wetlands depending on the site. These impacts could be significant.

Long-term management activities could result in fill and temporary impacts; however, the location of these actions is unknown at this time. New trails could cross jurisdictional features and the impact could be significant.

Implementation of Mitigation Measure BIO-2 will reduce impacts to a less-than-significant level through implementation of a compensatory mitigation program for impacts on wetlands that cannot be avoided.

Mitigation Measure BIO-2, Protect Wetlands and Waters

The District and other land management entity shall conduct a wetlands survey for areas that would be permanently or temporarily disturbed to confirm the location, extent, and regulatory status of wetland and water features within the management activity area. Sites that are entirely paved, compacted, or maintained as landscaped areas are not subject to this measure. Project impacts on wetlands and waters shall be avoided where feasible. If jurisdictional wetlands cannot be avoided, the project may require a Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers and a Section 401 permit from the Regional Water Quality Control Board; all permit requirements shall be implemented.

In addition, compensation for impacts on wetlands and waters shall follow the requirements in the CWA Section 404/401 permits. Compensatory mitigation may consist of the following:

- Providing compensatory mitigation through aquatic resource restoration, establishment, enhancement, and/or preservation.
- Obtaining credits from a mitigation bank.

IV.d) Impacts on the Movement of Fish or Wildlife Species – Less than Significant

Sonoma County directs the preservation and restoration of elements of wildlife habitats and corridors through the County, and the District's plans are designed to enhance and protect existing wildlife migration corridors. Both short- and long-term proposed fencing specifies the use of new wildlife friendly fence installations and identifies where fencing is unnecessary and can be removed. Gully stabilization and road and trail drainage improvements may temporarily require wildlife to travel away from the construction area; however, the impact would be temporary and last for the duration of construction only. The impact from implementation of the short-term management activities will be less than significant.

The exact locations for placement of long-term future public access infrastructure, trails, and roadways is unknown at this time; however, the Management Plan requires the careful planning for the location of these features to avoid habitat fragmentation. The impacts of these long-term facilities may require additional evaluation to determine if mitigation is needed to reduce impacts.

IV.e) Conflict with Local Policies or Ordinances – Less than Significant

The Sonoma County General Plan 2020 contains numerous goals, policies, and action items to protect biological resources. The policies require conservation of wetlands and waterways so that there is no net loss of wetlands, preservation of significant vegetation and trees, and specific measures for construction in and adjacent to sensitive habitats, such as stream channels. Implementation of the management actions could conflict with applicable County policies protecting biological resources, as identified in the previous impact discussions regarding special-status species, riparian vegetation, and

wetlands. However, the mitigation measures identified in the impacts analysis above will ensure that management actions comply with County policies, and the impact will be less than significant.

IV.f) Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan – No Impact

There are no habitat conservation plans or natural community conservation plans that cover the Wright Hill Ranch Open Space Preserve.

4.5 Cultural Resources

V. Cultural Resources: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐
e) Cause a substantial adverse change in the significance of a tribal cultural resource , defined in Public Resources Code §21074 as either:				
1. 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, that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in the Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
2. a resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

Unless otherwise indicated, the following information is derived from the Cultural Resources Survey of Wright Hill Ranch (Origer 2009).

Native American archeological findings are common along the Sonoma Coast, particularly near river mouths and beaches throughout the adjacent Sonoma Coast State Park holdings, indicating that the area was heavily used during indigenous times. The Kashaya Pomo were the only human inhabitants of the northern Sonoma Coast until the Russians arrived in the early 19th century, while the Coast Miwok settled to the south in the Bodega Bay region. Other references infer that the two groups may have shared the coastal area south of the Russian River, and that the Coast Miwok at least visited the Wright

Hill Ranch vicinity. Local sources, including State Parks historians, believe the Kashaya have inhabited the area for at least 7,000 years, with a community of 500-1,500 members at the mouth of Willow Creek. The Kashaya occupied about 30 miles of coastline, a territory that extended inland for five to thirteen miles.

These communities made use of the abundant resources in the area, including coastal products such as marine fish, shellfish, and seaweed; riparian products such as reeds and sedges for baskets and nets; and forest products such as shredded bark. Chert and glaucophane schist outcrops provided materials for common tools such as projectile points, knives, choppers, and scrapers, some of which were used for ceremonial purposes. The Kashaya Pomo also influenced the landscape through their frequent use of fire throughout the Sonoma Coast to facilitate hunting, cultivation, and other land uses. Prior to indigenous land management, lightning strikes and wild grazers and browsers exerted their own forces on the landscape; thus fire and grazing have shaped the Wright Hill Ranch landscape for millennia.

The first European settlement in the area was in Bodega, settled by the Spaniards in 1793 to protect the area from an English invasion and named for the Spanish explorer Juan Francisco de la Bodega y Cuadra. The settlement was soon deserted and remained empty until the arrival of a Russian fur trader named Alexander Kuskoff around 1811. The Russians established Fort Ross as a headquarters in 1812 and developed several ranches in the surrounding area for food and livestock production. Spaniards returned to the Sonoma Coast in 1823, followed by other European settlers in the 1840s, while the Russians, having decimated the beaver, seal, and otter populations, began to desert the area.

The property is within the 35,487-acre Rancho Bodega, which was granted to Stephen Smith by the Mexican governor in 1844. Rancho Bodega was eventually subdivided, with a large section purchased by Winfield S.M. Wright in 1863. When Wright died in 1892, his son Sampson W. Wright continued to raise sheep on the ranch including the lands comprising the present-day Wright Hill Ranch. Sheep ranching played an important role in Sonoma County's economy at the time, although to a lesser extent than cattle ranching or dairying. Brought to the County in large numbers during the Gold Rush, sheep were raised for food rather than wool and could be raised in areas with less forage and water than cattle.

In addition to their sheep operation, the Wright family also had a dairy on the property, as did many ranches at the time. The barn still supports the wooden stanchions used to hold the milking cows. The Wrights leased the property to the Patrick Furlong family in 1896, and later his sons Thomas, William, and Charles, who ran a dairy there until around 1916. Called the "Buckhorn Ranch" at the time, the dairy operation supported up to 180 cows. The major gulch draining down the western side of the Wright Hill Ranch property still bears the family name – Furlong Gulch. Like many farms during that time period, the Furlong's operation on the Buckhorn Ranch produced a number of products and large, less steep tracts of the ranch were cultivated, primarily for forage hay.

The Wright Ranch was further subdivided, and the Wright Hill Ranch portion was purchased from the Wright heirs by the Poff family in 1953. Jack Poff ran a variety of livestock on the property, eventually raising a herd of 700 sheep. The Poffs lived in the property's ranch house for about 20 years with only a

wood cook stove, gas lighting, a small gasoline-powered engine to pump water to the house, and a wooden telephone with a line running to the neighboring Mann property.

The comprehensive resource survey conducted on Wright Hill Ranch in 2009 and the 2016 survey for the access road improvements were designed to satisfy environmental issues specified in the CEQA Guidelines (Title 14 CCR §15064.5) by: (1) identifying all cultural and historical resources within the project area; (2) offering a preliminary significance evaluation of the identified resources; (3) assessing resource vulnerability to impacts that could arise from project activities; and (4) offering recommendations intended to protect resource integrity, as warranted.

Historic resources, as distinguished from archaeological resources, include antiques, buildings, structures, and sites generally from the past two centuries, marking the successive eras of Russian, Mexican, and North American occupation. Historic resources are found throughout Sonoma County.

Archaeology is the systematic study of past human life and culture through recovery and examination of remaining material evidence, such as graves, buildings, tools, and pottery. In Sonoma County, archaeological research generally involves study of the Native American inhabitants of the land from roughly 8,000 years ago to the early 1800s when the County was settled by American, Russian, Spanish, and Mexican colonists, and most Native Americans were brought into the mission system.

Paleontology is the study of the forms of life existing in prehistoric or geologic times as represented by the fossils of plants, animals, and other organisms. Paleontological remains in Sonoma County include plants, invertebrates, and vertebrates ranging in age from approximately 140 million years to less than 8,000 years before the present. Within the County, paleontological remains have been primarily recovered from the following geologic formations:

- Franciscan complex – The Franciscan formation largely covers the northern part of the County, except for Alexander Valley and the northern Santa Rosa Plain;
- Wilson Grove – Paleontological resources are common in the Wilson Grove formation that is located in the western part of the County;
- Ohlson Ranch and Petaluma – Resources are also commonly located in the Ohlson Ranch and Petaluma formations in the vicinity of Occidental, Sebastopol, and the coast and at the base of Sonoma Mountain; and
- Sonoma Volcanics – The Sonoma Volcanics formation is found in the Sonoma Mountains and the Sonoma/Napa Mountains that form the eastern border of the County.

As defined in PRC Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, on the national, state, or local register of historical resources.

IV.a) Cause Adverse Impacts on Historic Resources – Less than Significant with Mitigation

The ranch complex (ranch house, a large barn, and three outbuildings) and ranching infrastructure (cattle chutes and corrals) are contained within a 15-acre area in the west-central part of Wright Hill Ranch. Miscellaneous ranching features such as fencing, corrals, developed springs, feeding areas, and trash dumps are scattered throughout the property.

Archival research found that there were no recorded cultural resources and no ethnographic sites reported within Wright Hill Ranch; however, the study area had not been the subject of prior cultural resources investigation. Two cultural resources surveys were performed between 1995 and 2000 on adjacent properties. Adjacent surveys found one prehistoric archaeological site that was recorded just outside of the Preserve.

Field surveys in 2009 identified two historical cultural resources: Wright Hill Road and Wright Hill Ranch. Several modern-era trash dumps were also identified.

Wright Hill Ranch's historic sites can be best preserved through active renovation and maintenance. Short-term management of the property will focus on preventing deterioration in ways that protect the historic characteristics of the ranch buildings, corrals, and landscaping. Long-term management actions will focus on the renovation of the buildings and public education opportunities

The Wright Hill Ranch Management Plan includes a number of short-term management activities designed to prevent deterioration of the buildings and associated structures in ways that protect the historic characteristic; see Table 4.5-1. below. The Management Plan also identifies several long-term management activities to preserve the ranch complex through active renovation and maintenance of the buildings.

Table 4.5-1. Ranch Complex Building and Property Short-term Maintenance Actions

Resource	Short-term Maintenance Actions
Qualifications	• All work on the ranch complex building or property will be completed in consultation with and under the direction of a Historic Archaeologist, Historian, or Historic Preservationist. The Historic Archaeologist, Historian, or Historic Preservationist must meet the Secretary of the Interior's Professional Qualification Standards.
House, Shed, and Garage	• Discourage arson or vandalism of buildings prior to preservation work beginning (i.e., erecting protective fencing, if necessary). • Repair rather than replace windows when feasible. • Secure buildings from the elements to minimize deterioration of existing structures. • Repair using in-kind materials or materials chosen by the Historic Archaeologist, Historian, or Historic Preservationist.
Foundations	• Inspect and repair foundations, as needed. Repairs to foundations will be made using in-kind materials. • Protect and maintain buildings and sites by providing proper drainage to prevent erosion to foundation walls, drain water away from the buildings during storm events, and minimize potential for erosion on the landscape.

Table 4.5-1. Ranch Complex Building and Property Short-term Maintenance Actions

Resource	Short-term Maintenance Actions
Landscaping	• Preserve important landscape features including ongoing maintenance of historic plant materials. • Maintain the garden area at the front of the house to establish clear visibility of the building. Existing trees and shrubs will be pruned, as appropriate. Other ornamental plants currently in the yard will be retained; however, those that are overgrown will be thinned, pruned, or otherwise restrained without impacting the historical integrity of the complex. • Disturbance around the buildings will be minimized.
Corrals, Chutes, Fencing Misc Ranch Features: feeders, troughs	• Corrals and fencing will be maintained with materials similar to the existing fences. Feeders and troughs will be maintained with materials similar to the existing features.

Both short-term and long-term maintenance and repair and active renovation of the ranch will follow the *Secretary of the Interior's Guidelines for Treatment of Historic Properties* (Weeks and Grimmer 1995) to ensure that the historic elements of the complex are protected. Securing the buildings from the elements with sound roofing, windows, and walls will help to prevent deterioration of existing structures. The historic buildings management plan will provide a sound roadmap for the long-term management and renovation of the ranch complex.

Although the historic buildings management plan will provide the details necessary to maintain the historic characteristics of the ranch complex, maintenance activities implemented before completion of the buildings plan may adversely impact historic resources if materials or techniques fall outside the Secretary of the Interior's Guidelines. The impacts could be significant.

The cultural resources survey report notes that infrastructure development within 100 feet of the Wright Hill Ranch main complex, the eastern corral, or the isolated features identified on the site record could result in significant impact on the historic resources.

However, Mitigation Measure CR-1, Identify and Avoid or Minimize Impacts on Historic Resources, will be implemented to mitigate the potential impacts from ranch complex maintenance activities and infrastructure placement. Implementation of this mitigation measure will minimize the potential construction impacts on the historic resource to less-than-significant levels by requiring consultation with an archaeologist or architectural historian who meets the *Secretary of the Interior's Professional Qualification Standards* for all maintenance activities or for placement of any new infrastructure within 100 feet of historical resources. Therefore, this potential impact on historic resources will be less than significant with mitigation.

Mitigation Measure CR-1, Identify and Avoid or Minimize Impacts on Historic Resources

Prior to implementation of any short or long-term maintenance activities on the ranch complex, the District or other land management entity shall consult with a qualified archaeologist or

architectural historian to confirm the proposed annual maintenance activities are appropriate and protect the historic character of the complex. The archaeologist or architectural historian shall revise maintenance activities as necessary. Revisions may include, but shall not be limited to, a change in the materials used to clean or repair damage and means to protect buildings and landscape against arson and vandalism.

If subsurface historic materials are encountered during construction activities, the piece of equipment or crew member that encountered the materials shall stop and the find inspected by a qualified historian/archaeologist. Project personnel shall not collect historic materials. If the historian/archaeologist determines that the find qualifies as a unique historic resource for the purposes of CEQA (Guidelines Section 15064.5(c)), all work shall be stopped in the immediate vicinity to allow the archaeologist to evaluate the find and recommend appropriate treatment. Such treatment and resolution shall include either modifying the project to allow the materials to be left in place or undertaking data recovery of the materials in accordance with standard archaeological methods. The preferred treatment is protection and preservation.

IV.b,d) Cause a Substantial Change to Archaeological Resources or Human Remains – Less than Significant with Mitigation

As discussed above, Native American archeological findings are common along the Sonoma Coast. Kashia Pomo and Coast Miwok inhabited the area along the coast near Wright Hill Ranch. Several sites were identified during the field evaluation of the property; no human remains were identified. A number of prehistoric archaeological sites have been identified on the Wright Hill Ranch Open Space Preserve (Origer 2009). The reports include recommendations for their treatment and protection. Potential direct impacts to cultural resources on the Wright Hill Ranch Open Space Preserve could result if short-term or long-term management activities are undertaken at or near prehistoric archaeological locations. Indirect impacts could result from increased foot traffic, which increases the potential of artifact collecting by visitors to the Preserve.

Short-term and long-term management activities will require ground disturbance and excavation (e.g., erosion control and gully repair, trail construction). There are known archaeological sites located near the jeep trail on the property, and several short-term and long-term roadway drainage improvements could occur in areas that include cultural resources. Additionally, other ground-disturbing activities could be located in areas where previously undiscovered cultural resources or buried remains exist. Therefore, the potential impact on archaeological resources and human remains is considered significant, given the potential for damage to such resources during ground-disturbing construction activities.

Mitigation Measure CR-2 will reduce any impact on archaeological resources that may be encountered during construction by identifying, protecting, preserving, or recovering significant resources and having a qualified archaeologist review plans for short- and long-term actions. Mitigation Measure CR-3 will reduce the impact from discovery of human remains by providing standard procedures in the event that

human remains are encountered and by adhering to PRC Section 5097.98 that requires Native American tribal notification. The impact on potentially unknown archaeological resources or human remains following mitigation will be less than significant.

Mitigation Measure CR-2, Identify and Avoid or Minimize Impacts on Archaeological Resources

The District or other land management entity shall avoid known archaeological resources where feasible and follow the treatment recommendations presented in the cultural resources report for the Preserve (Origer 2009). All projects shall be designed, constructed, and operated to avoid damage to the resource as guided by the cultural resources treatment measures. Measures may include, but are not limited to, temporary protective barriers, construction worker training, or relocation of the project itself.

A qualified archaeologist shall review plans for the short-term and long-term erosion control efforts. The District and other land management entity shall avoid the resources and provide proper buffers between management activities and any new infrastructure and the archaeological resources.

If previously unknown archaeological materials are encountered during construction, the piece of equipment or crew member that encountered the materials shall stop, and the find shall be inspected by a qualified archaeologist. Project personnel shall not collect archaeological materials. If the archaeologist determines that the find potentially qualifies as a unique archaeological resource for the purposes of CEQA (Guidelines Section 15064.5(c)), all work shall be stopped in the immediate vicinity to allow the archaeologist to evaluate the find and recommend appropriate treatment. Such treatment and resolution shall include either project modification to allow the materials to be left in place or undertaking data recovery of the materials in accordance with standard archaeological methods. The preferred treatment is protection and preservation.

Mitigation Measure CR-3, Procedures for Encountering Human Remains

The treatment of any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities shall comply with applicable State laws. If human graves are encountered, the District and other land management entities shall ensure that all work stops in the vicinity and the Sonoma County Coroner is notified. A qualified archaeologist shall evaluate the remains. If human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours of identification, pursuant to PRC Section 5097.98. NAHC would appoint a Most Likely Descendant (MLD). A qualified archaeologist, the District, and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties cannot not agree on the

reburial method, the District shall follow PRC Section 5097.98(b), which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

IV.c) Cause a Substantial Change to a Paleontological or Unique Geological Resource – No Impact

Paleontology is the study of the forms of life existing in prehistoric or geologic times as represented by the fossils of plants, animals, and other organisms. Paleontological remains in Sonoma County include plants, invertebrates, and vertebrates ranging in age from approximately 140 million years to less than 8,000 years before the present.

Sonoma County has paleontologically rich formations; however, the Wright Hill Ranch Open Space Preserve is not located within a formation known to have paleontological remains (Powell et.al 2004). Therefore, implementation of the Management Plan will have no impact on paleontological resources.

IV.e) Cause a Substantial Change to a Tribal Resource – Less than Significant with Mitigation

Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that is listed, or determined to be eligible for listing, on the national, State, or local register of historical resources.

A number of prehistoric archaeological sites have been identified on the Wright Hill Ranch Open Space Preserve (Origer 2009). Five prehistoric archaeological sites and four isolated prehistoric artifacts were located within the study area. Potential direct impacts to cultural resources on the Wright Hill Ranch Open Space Preserve would result if short-term or long-term management activities are undertaken in areas where cultural resources were identified. Indirect impacts could result from increased foot traffic, which increases the potential of artifact collecting by visitors to the Preserve. The report includes recommendations for their treatment to protect them avoid impacts.

The District provided an opportunity for local tribes to consult about the Wright Hill Ranch Open Space Management Plan: mailing letters and maps to the Federated Indians of Graton Rancheria, Dry Creek Rancheria Band of Pomo Indians, Cloverdale Rancheria of Pomo Indians, and Kashia Band of Pomo Indians of Stewarts Point Rancheria. No additional cultural resources were identified by the tribal contacts. Tribal representatives provided input on the protection measures developed for the known sites. However tribal representatives have requested further contact if a previously unknown tribal resource is discovered within the Preserve.

Ground-disturbing construction activities associated with short-term and long-term management practices (e.g., gully repair or new infrastructure) could disturb tribal resources if the resources are located in the construction area and if construction activities reach a depth where subsurface artifacts are located. Therefore, the potential impact on tribal resources is considered potentially significant if a resource is present and disturbed during construction.

However, Mitigation Measure CR-4, Identify and Avoid or Minimize Impacts on Tribal Cultural Resources, will be implemented to reduce the potential impacts from construction of short- and long-term projects. Implementation of this mitigation measure will require consultation with interested tribes to gather information about the sensitivity of the individual project area in terms of the potential presence of tribal cultural resources and the proximity of the activity in relation to the resource. The District and other land management entities will use the information provided by the tribes to develop projects that avoid or preserve resources and develop protocols for treatment of resources should any be discovered during implementation activities at the Wright Hill Ranch Open Space Preserve. Therefore, the potential impact on tribal resources will be less than significant with mitigation.

Mitigation Measure CR-4, Identify and Avoid or Minimize Impacts on Tribal Cultural Resources
The District and other land management entities shall consult annually with representatives from interested tribes to relay information about the upcoming management activities and to allow for the tribes to provide information about the specific area. If the review identifies that a project may cause substantial adverse change to a tribal cultural resource, the District and other land management agencies shall avoid or minimize adverse impacts in one of the following ways:

1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context.

2) Treatment of the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
   - Protecting the cultural character and integrity of the resource
   - Protecting the traditional use of the resource
   - Protecting the confidentiality of the resource

4.6 Geology and Soils

VI. Geology and Soils: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) 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?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

VI.ai-iv,c,d) Expose People or Structures to Potential Substantial Adverse Effects, including Risk of Loss, Injury, or Death Involving Fault Rupture, Strong Ground Shaking, and Seismic-Related Ground Failure – No Impact

Wright Hill Ranch Open Space Preserve is located in an area within one mile of the San Andreas Fault where the bedrock of Sonoma County's coastal region is composed of relatively young ocean sediment layers that were pushed onto the continent's edge by the subduction of the Pacific Plate under the North American Plate. These geological movements created the region's unstable and erosive Franciscan mélange. Rockslides, gullies, rill erosion, and mass wasting are common throughout the region.

The Wright Hill Ranch Open Space Preserve Management Plan includes no short-term or long-term management activities that would significantly alter existing structures or add structures to the property. Installation of small-scale erosion control and water management measures, plantings, and minor grading will not change the local impacts of earth-shaking events. Trail and access road upgrades will improve drainage and reduce concentrated runoff during rainstorms, and improved drainage in areas prone to landslides will reduce the impact of landslides and enhance local conditions. No new impacts will occur.

VI.b) Result in Substantial Soil Erosion or Loss of Topsoil – Less than Significant

Measures to control soil erosion are integral to the Management Plan. Actions include soil protection after any disturbance, such as seeding or planting promptly with appropriate native species and covering with weed-free straw mulch, and/or installing biodegradable erosion control fabric; see Project Measure 1, in the Project Description (see Section 2.5). In addition, when required, the Management Plan calls for monitoring of active erosion areas to detect critical changes from the established baseline and monitoring of restoration plantings to determine plant establishment success. Impacts will be less than significant.

VI.e) Have Soils Incapable of Adequately Supporting Use of Septic Tanks – No Impact

No changes or additions to septic systems are proposed; therefore, there will be no impact.

4.7 Greenhouse Gas Emissions

VII. Greenhouse Gas Emissions: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

VII.a) Generate Greenhouse Gas Emissions that May Have a Significant Impact on the Environment – Less than Significant

Greenhouse gases (GHGs) trap heat in the atmosphere, causing an increase in average global temperatures and climate changes resulting from increased energy in the system, including changes in temperature, temperature ranges, wind patterns, storm distribution and intensity, and total rainfall. These changes are already affecting habitat conditions, species preservation, food supply, water reliability, economic stability, and human safety; larger effects are anticipated in the future. Generally, GHGs are measured by the amount of change they make in atmospheric heat retention (forcing) compared to the most common GHG carbon dioxide equivalent (CO_2E).

Government agencies at all levels are working to reduce GHGs. There are two areas of focus for reducing the amount of GHGs in the atmosphere: cutting emissions and increasing sequestration, the process by which atmospheric GHGs are stably incorporated into non-mobile forms such as trees and soil. Primary GHGs emitted at Wright Hill Ranch under current conditions are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Carbon sequestration is occurring in forest and shrub habitats that are expanding or stably laying down soil. Other potent GHGs are important but not likely to be generated or sequestered by short-term or long-term ranch management actions.

NSCAPCD uses the BAAQMD GHG significance threshold[1] of 1,100 metric tons of CO_2E per year for a proposed project. The Wright Hill Ranch Preserve Management Plan short- and long-term actions have the potential to affect GHG emissions in a number of ways. The two primary potential effects are construction-related emissions and on-going, beneficial carbon sequestration from planting new

[1] The BAAQMD CEQA thresholds were challenged in trial court and appealed to the California Supreme Court. Results of the appeal are still pending; however, the lower court ruling remains in place pending final resolution of the case. The trial court invalidated the BAAQMD CEQA thresholds because BAAQMD did not complete a CEQA evaluation of the thresholds. The court did not rule on or question the adequacy of the BAAQMD CEQA Air Quality Guidelines, including the impact assessment methodologies or the evidentiary basis supporting the thresholds. Agencies have the discretion to use the threshold when conducting CEQA review.

vegetation. Ongoing ranch operations will produce little change in GHGs because ranching methods will be substantially the same and the stocking level will stay the same or diminish slightly.

New emissions would come from erosion control and trail building. Implementation of erosion control measures will generate small levels of GHG emissions during construction. Implementation of each repair may take a few days to several weeks. Work will utilize a combination of hand tools and heavy equipment with smaller crews and fewer construction vehicles than most construction projects. Roughly estimated, the 10 gully repairs, constituting 8,050 feet of gully stabilized, will generate 330 tonnes CO_2E over the next five years.[2]

Trail planning is not yet sufficiently developed to estimate quantitatively; however, ground disturbance is likely to be less than disturbance required for the gully repairs. In order for erosion control efforts and trail construction combined to have a significant impact per NSCAPCD standards, trail work would have to generate an additional 5,200 tonnes CO_2E over the next. This would be approximately equivalent to 50 miles of new trail.[3] If trail improvements require disturbance of 50 miles or more, additional impact assessment and environmental review would be required.

In addition, planting and habitat protection elements of the Management Plan will provide carbon sequestration. Vegetation will be planted as part of gully repairs, trail decommissioning, and other habitat improvement activities. Fencing off riparian areas so that they can recover will also promote growth of woody vegetation and corresponding carbon sequestration. In addition, the proposed Forest Protection Zone and other vegetated buffers will foster increased carbon sequestration in both woody vegetation and forest floor duff. Sequestration varies more than emissions by the type of vegetation and project circumstances, so this analysis does not include a numeric estimate. However, it is reasonable to expect that more carbon will be sequestered by ongoing vegetation growth than is generated by the small, short duration construction projects. Therefore, implementation of the Management Plan will have a less-than-significant impact on GHG levels.

VII.b) Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing Greenhouse Gas Emissions – No Impact

Pertinent GHG regulations and guidance for Wright Hill Ranch Open Space Preserve come from the State of California, NSCAPCD, the Regional Climate Protection Authority, and Sonoma County. California has enacted three significant pieces of climate change legislation:

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[2] Construction emissions estimates were generated using Urbemis 9.2.4, which bases construction vehicle emissions on OFFROAD 2007. For the purpose of the estimate, gully repairs were estimated as 20 feet wide.

[3] Assuming trail construction generates GHGs at the same rate as gully repair, but trails are 10 feet wide or less:
Miles of Trail = $\frac{\text{(Miles of Erosion Control*2-}\textit{half as wide}\text{)(5,200 tonnes } CO_2E \text{ Trail)}}{\text{(330 tonnes } CO_2E \text{ Erosion Control)}} = 50.4$

- AB 32, the Global Warming Solutions Act, addresses total GHG emissions across the State and throughout the different sectors of California's economy.
- SB 375 requires reduction of emissions from automobiles and light trucks.
- SB 97 requires consideration of climate change in all environmental assessments under CEQA, regardless of the specific source of GHGs or other climate change effects.

Of these, only AB 32 directly applies to agricultural practices. CARB has been tasked with developing a scoping plan for implementation of AB 32. The first Scoping Plan Update (2014) identifies agriculture as one of the major sectors that must be addressed to reduce GHG emissions. As agricultural operations vary greatly, the Scoping Plan Update provides guidance rather than regulation. For cattle operations, the Scoping Plan Update suggests methane capture from manure ponds. This is not feasible at the Wright Hill Ranch Open Space Preserve because the ranch does not have a manure pond or other central manure facility. If the District chooses to implement manure gathering in the future, the Scoping Plan provides financial incentives to help offset the cost of a methane digester. The overarching point the Scoping Plan makes about agriculture is that it generates substantially less GHGs per acre than urbanized areas. Therefore, an important Scoping Plan goal is keeping areas that are currently in agriculture from undergoing land-use conversions. The District actively supported this goal with acquisition of Wright Hill Ranch.

The air quality districts are focused on stationary sources and the transportation sector, which are not part of this program. None of the long-term or short-term management actions will conflict with these measures.

The Regional Climate Protection Authority (RCPA) completed and adopted the Climate Action Plan 2020. This plan created unified actions between the County and all the incorporated cities in the County for climate mitigation and adaptation. RCPA member agencies have yet to adopt the Climate Action Plan. The Climate Action Plan calls for two measures to reduce emissions from livestock operations: methane capture for dairy operations and reducing enteric fermentation in all cattle operations. Wright Hill Ranch is currently a beef ranch, rather than a dairy ranch; therefore, the methane capture measure does not apply. Enteric fermentation is reduced by improved forage quality from low or moderate intensity grazing or dietary supplements (Harper et al 1999; Wang et al 2014). Studies in Australia indicate that lower grazing intensity can improve beef production while increasing biodiversity and lowering methane emissions. Wright Hill Ranch is currently grazing about 115 AUs, down from a previous high of 180. The Management Plan recommends continuing at this level or a slightly reduced level to 105 AUs. This is in compliance with the Climate Action Plan.

The Sonoma County General Plan 2020 currently addresses climate change in the energy and transportation elements. These sectors are not part of the Wright Hill Ranch Open Space Preserve Management Plan.

4.8 Hazards and Hazardous Materials

VIII. Hazards and Hazardous Materials: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

VIII.a,b) Hazardous Materials and Accidental Spill Conditions – Less than Significant

Construction activities could include the use of hazardous materials such as fuels, lubricants, and solvents. Routine transport of hazardous materials to and from the Wright Hill Ranch Open Space Preserve during construction activities identified in the Management Plan could result in an incremental increase in the potential for accidents. However, both the State and Sonoma County have policies and laws that relate to the storage, transport, use, and disposal of hazardous materials. Caltrans and the

California Highway Patrol (CHP) regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and release into the environment from hazardous materials use. Regulations and criteria for the handling of hazardous materials mandate disposal at an appropriate landfill. Cal-OSHA also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees.

Additionally, use of herbicides for vegetation management activities could lead to potential for an accidental release of hazardous or toxic materials. As discussed in the Project Description's Environmental Protection and General Program Measures section 2.5 regarding measures for Pollution Prevention and Pesticide Use, protection strategies will be integrated into ranch management for use of BMPs in construction and to place strict parameters on the use of herbicides. These requirements and application of herbicides in accordance with all local agency or manufacturer usage restrictions will reduce the risk of accidental release into the environment. The impacts will be less than significant.

VIII.c) Emit Hazardous Materials within One-quarter Mile of a School – No Impact

The school closest to Wright Hill Ranch Open Space Preserve, Monte Rio Elementary, is about five miles away. There are no schools within one-quarter mile of the Preserve.

VIII.d) Included on a List of Hazardous Materials Sites – No Impact

The online data resources that provide information on the location of hazardous materials release sites pursuant to Section 65962.5 of the Government Code indicate that there are numerous leaking underground storage tanks and other contaminated soil and groundwater sites located throughout Sonoma County; however, the closest site is almost a mile away, downhill and down watershed. It does not pose a threat to visitors or biological resources at the Preserve. An assessment of Wright Hill Ranch for hazardous materials sites was conducted in 2007. An old sheep dip was identified, and the site was remediated. Hazardous materials in liquid, from sheep-cleaning activities, and potentially contaminated soils were removed from the property. No other hazardous sites occur on the Preserve. Therefore, there will be no impact from listed or known hazardous materials sites.

VIII.e,f) Safety Hazard for People Residing or Working within Two Miles of an Airport – No Impact

There are no public or private airports within two miles of Wright Hill Ranch Open Space Preserve, and no activities in the Management Plan will produce any off-site hazards that could affect airports or the people living and working nearby. Therefore, the project will produce no potential hazards to people residing or working within two miles of an airport.

VIII.g) Impair or Interfere with an Adopted Emergency Response/Evacuation Plan – No Impact

Wright Hill Ranch Open Space Preserve is located on Wright Hill Road, between Highway 1 and Coleman Valley Road. Wright Hill Road is not identified as an evacuation route by either the Sonoma County General Plan Public Safety Element (2013) or the Sonoma County Hazard Mitigation Plan (2011). Wright Hill Road is smaller than either of the roads it connects to and is not likely to be used for emergency evacuation. In fact, the gate on the east edge of Wright Hill Ranch Open Space Preserve, where it crosses private property, is kept locked. In addition, the size and nature of the individual management actions in the Management Plan will not require the closure of public roadways, so construction activities will not impair the use of evacuation routes or evacuation sites within the County. Maintaining access for fire vehicles is specifically included in the Management Plan. Therefore, there will be no impact on emergency response or evacuation plans.

VIII.h) Increase Exposure to Wildfires – Less than Significant with Mitigation

According to the California Department of Forestry and Fire Protection (CalFire) mapping, Wright Hill Ranch Open Space Preserve has moderate to high fire danger (CalFire 2006). The specific short-term and ongoing actions planned for fire management, identified in the Project Description, will have a beneficial effect on fire hazards.

Construction activities for erosion control and trail building could increase the possibility of wildfire. Mitigation Measure HAZ-1 will require the use of construction techniques that will reduce the likelihood of wildland fires during construction. Implementation of the measure will reduce the impact to a less-than-significant level by removing combustible vegetation from staging and other construction areas to minimize the risk of fire starts.

In the long-term, the District may undertake a prescribed burn feasibility study. The feasibility study, and any plan ensuing from the study, would be developed in conjunction with CalFire, FireSafe Sonoma, and the NSCAPCD to evaluate its use as an effective and practical vegetation management tool. Mitigation Measure HAZ-2 requires incorporation of consulting agency suggestions in management practices to ensure that no increase in wildfire likelihood ensues, thus avoiding any significant effect.

> ***Mitigation Measure HAZ-1, Reduce Wildland Fire Hazards during Construction***
> Prior to construction activities, the District or other land management entity shall remove dry, combustible vegetation from the construction site with specific focus on the staging areas for heavy equipment. Grass and other vegetation less than 18 inches in height shall be maintained where necessary to stabilize the soil and prevent erosion. Vehicles shall not park in areas where exhaust systems can contact combustible materials. Fire extinguishers and fire suppression tools shall be available on the site when working in high fire hazard areas.

Mitigation Measure HAZ-2, Reduce Wildland Fire Hazards from Controlled Burns

The District or other land management entity shall include fire safety measures from CalFire, FireSafe Sonoma, and the Northern Sonoma County Air Pollution Control District in any plan developed for controlled burns for vegetation management and habitat improvement.

4.9 Hydrology

IX. Hydrology and Water Quality: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☒
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

IX.a,e,f) Violate Water Quality Standards or Degrade Water Quality – Less than Significant

Wright Hill Ranch drains to three significant watersheds—Willow Creek, Scotty Creek, and Furlong Gulch—and several unnamed coastal gulches. Several upper watershed gullies on the Preserve are eroding and likely causing some sedimentation to downstream waterways. Springs on the property provide water for cattle, humans, and wetlands. Many of these are used directly by cattle in ways that create erosion and potential sedimentation. Dense, woody vegetation and steep slopes that characterize major tributaries significantly limit livestock access to these drainages. The upper portions of the unnamed southwestern tributaries are more accessible and more impacted by livestock.

Short-term and long-term management actions will temporarily disturb soils and, if not properly managed, could result in localized areas of soil erosion or siltation that could degrade water quality. However, Project Measure 2, Erosion Control, Sediment Detention, and Site Maintenance, requires implementation of construction-period control measures that will limit disturbance to only the areas required to complete the project, minimize access to actual work area, require erosion and sedimentation control, and preserve vegetation as an effective form of erosion control (see section 2.5). If needed, temporary soil stabilizing and erosion and sedimentation reduction methods, such as silt fences or straw barriers, will be installed. Post-construction erosion and sedimentation control measures are also required for all land or vegetation disturbing actions. Because each action will include implementation of construction-period and post-construction water quality and soil erosion protection measures, impacts on water quality will be less than significant.

Occasionally, heavy equipment will be used for some Management Plan actions. The Management Plan identifies the need for BMPs during use of petroleum-powered equipment in and near waterways, including monitoring equipment for leaks, storing equipment away from waterways, and having spill and containment materials on hand. These measures will protect water quality during construction of the gully repairs, road repairs, and trails. With implementation of the Project Measure 2, no mitigation measures will be required.

IX.b) Substantially Deplete Groundwater Supply or Interfere with Groundwater Recharge – No Impact

Wright Hill Ranch Open Space Preserve gets all its water from springs. No wells or structures that would remove groundwater are planned, and no interference with any recharge will occur. The project will not impact groundwater.

IX. c, d) Substantially Alter Drainage Patterns Resulting in Erosion or Siltation or Increased Flooding – No Impact

Channels and drainage patterns within Wright Hill Ranch Open Space Preserve will not be substantially altered by actions identified in the Management Plan. Erosion control activities planned for roads and gullies are designed to alter stormwater in ways that will reduce erosion and silt-laden runoff. Both short-term and long-term riparian plantings and fencing cattle out of waterways will also reduce erosion. Work along watercourses proposed in the Management Plan will promote the use of biotechnical streambank protection, an approach that increases the bank's roughness, thereby slowing

the rate of discharge into downstream watercourses. No management actions have the potential to increase storm waters or influence flooding. There will be no adverse impact on erosion, siltation, or flooding.

IX.g, h) Place Housing or Structures in the Floodplain or 100-year Flood Hazard Area or Redirect Flood Flows – No Impact

Wright Hill Ranch Open Space Reserve is not in or near floodplains or flood hazard areas. There is no mechanism for the management plan actions to influence flooding. No impact will occur.

IX.i) Increase Hazards from Inundation by Seiche, Tsunami, or Mudflow – No Impact

Wright Hill Ranch Open Space Preserve is not in an area prone to inundation by seiche or tsunami. There are areas on the property, as described in the geological resources section that may be subject to rainfall-induced landslides, particularly in some of the steep canyons. Mudflows could happen on steep slopes that do not have adequate vegetation with deep roots. However, Management Plan actions will not increase this hazard and are very likely to reduce it over time by encouraging vegetation growth and managing fire risk. There will be no adverse impact from actions in the Management Plan on the likelihood of impacts from seiche, tsunami, or mudflow.

IX.j) Expose People or Structures to a Significant Risk of Involving Flooding – No Impact

Wright Hill Ranch Open Space Preserve in not in an area prone to flooding. Management Plan actions do not include impounding significant amounts of water or otherwise creating or increasing any flood risks. The project will have no impact on flood risk.

4.10 Land Use and Planning

X. Land Use and Planning: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

X.a,b,c) Divide a Community; Conflict with Applicable Land Use Plans, Policies, or Regulations; or Conflict with Applicable Habitat Conservation Plans – No Impact

The Wright Hill Ranch Open Space Preserve is a crucial addition to the adjacent 10,000-acre Sonoma Coast State Park. The 7,500-acre Willow Creek/Red Hill portion of the Preserve borders other conserved lands, including the District-held Willow Creek "Seed Orchard" (305 acres); the Sonoma Land Trust's Freezeout Creek (87 acres); and the 210-acre Mendocino Redwood Company property, which is also covered by a District conservation easement. Wright Hill Ranch Open Space Preserve borders an additional 3,111 acres of conserved land, including the District-held conservation easement on Colliss Ranch (1,578 acres); Rigler easement (415 acres); and Myers Ranch easement (352 acres), as well as Ocean Song Farm and Wilderness Center (161 acres), Sonoma Land Trust's Finley Creek (237 acres), the District's Carrington Ranch (335 acres), and a riparian corridor preserved by the Bodega Land Trust (35 acres). All of these adjacent lands are largely used as open space for recreation and/or natural resource protection.

Implementation of the management actions described in the Wright Hill Ranch Open Space Preserve Management Plan will have no impact on an established community and will not conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project. The property is within the Land Extensive Agricultural Coastal District zoning designation (Sonoma County Zoning Section 26C-30). This zoning designation is designed to enhance and protect lands best suited for permanent agricultural use and capable of relatively low production per acre of land. The Management Plan does not conflict with the zoning designation because it meets the agricultural resources policies in the Sonoma County General Plan and the resource policies of the Local Coastal Plan. The Wright Hill Ranch Open Space Preserve also falls within the County's Riparian Corridor and Scenic Resource protection areas, and the Management Plan is consistent with protection of these resources. No impacts will occur.

Actions identified in the Management Plan do not conflict with any habitat conservation plan or natural community conservation plan, since there are no conservation plans specifically including the Wright Hill Ranch Open Space Preserve. However, as discussed in the Background and Need section above, implementation of the Management Plan will support many State mandates and other key initiatives to address threats affecting wildlife and their habitats, including protecting linkages on public lands. Management will also support CDFW's goal of promoting resilience to climate change to allow ecosystems to accommodate gradual changes and maintain key ecosystem functions, and the property falls within a critical corridor linking the Coast Range to the north with habitats in Marin County to the south, a linkage that is one of many connections that are vital to the preservation of landscape-level processes and maintenance of wildlife populations. No impacts will occur.

4.11 Mineral Resources

XI. Mineral Resources: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

XI.a,b) Result in the Loss of Availability of Mineral Resources – No Impact

According to the regional mapping of mineral resources in Sonoma County (CDC, California Geological Survey 2005 and 2013), there are mineral resource zones and active aggregate mines mapped throughout Sonoma County. However, Wright Hill Ranch Open Space Preserve is a District preserve on which low-intensity public outdoor recreation will be allowed to continue. No mineral recovery is planned for the property in perpetuity, and no management actions are proposed that would change in presence or affect the availability of mineral resources. Therefore, there will be no impact on mineral resources.

4.12 Noise

XII. Noise: Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

XII.a,b,c,d) Exposure to Noise Levels in Excess of Standards, Substantial Increase in Ambient Noise Levels, and Increase in Ground-borne Vibration – Less than Significant

The Wright Hill Ranch Open Space Preserve is located on the first ridge east of the Pacific Ocean. Surrounding properties are entirely composed of large lot properties, either parks or property zoned for land extensive agriculture or rural residential with a minimum 160-acre lot size (Sonoma County PRMD 2016). About one-half of the land surrounding Wright Hill Ranch is currently protected in perpetuity through fee title or conservation easements. Existing background noise levels are typical rural quiet. There is no noticeable sound from adjacent properties, and, because of the large distances in between, it is unlikely people on adjacent properties hear noise from the Preserve, even when ongoing ranching activities require use of sound-generating equipment. Current use does not generate problematic noise levels.

Short- and long-term management actions that require use of construction equipment may generate noise, including erosion control actions, larger maintenance activities for historic structure preservation such as roof repairs and trail repair. The Management Plan identifies invasive species control which will often require use hand tools, but some of the work will use power tools. Noise-generating equipment

will be used on a short-term basis to implement discrete management activities; however, temporary ambient noise levels during natural resource improvement and maintenance activities will not exceed existing noise generated by common agricultural operations. Management activities on the ranch will utilize the same types of equipment required for on-going ranching activities, and therefore, noise impacts from property maintenance will be less than significant.

The Management Plan proposes to continue the current, docent-guided program for the near term. Continuing the current program, even with some increase in the number of outings and trail connections, will not generate significant increases in noise levels or vibration for neighbors or residents along the access road. Potential impacts due to an increase in noise levels or excessive vibration will be less than significant.

XII.e,f) Excessive Noise Impacts within Two Miles of an Airport – No Impact

There are six public use airports in Sonoma County; however, none are located within two miles of the Wright Hill Ranch Open Space Preserve. The project will have no impact on airport facilities.

4.13 Population and Housing

XIII. Population and Housing: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

XIII.a,b,c) Induce Population Growth, Displace People or Displace Housing – No Impact

The Wright Hill Ranch Open Space Preserve is located in a rural, agricultural area along the Sonoma Coast. With the exception of established residential areas such as Bodega Bay, Salmon Creek, Sereno del Mar, Carmet, and Jenner, housing is sporadic. The Management Plan proposes no changes to population or housing. The short- and long-term management actions are designed to improve natural habitats, support agricultural sustainability, and reduce erosion and sedimentation to improve water quality and will include activities to improve roadway drainage; however, implementation will not result in roads for future development. Resource management activities at the Wright Hill Ranch Open Space Preserve will not induce population growth, and implementation of the Management Plan will not displace people or housing; therefore, there will be no impact.

4.14 Public Services

XIV. Public Services: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) 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?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

XIV.a) Create Adverse Physical Impacts from Development of New or Expanded Governmental Facilities – No Impact

The Wright Hill Ranch Open Space Preserve Management Plan does not include any actions that will create the need for additional public services or public services facilities. Therefore, there will be no impact.

4.15 Recreation

XV. Recreation: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) 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?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

XV.a,b) Create Adverse Physical Impacts from Increased Park Usage or from Construction or Expansion of Recreational Facilities – Less than Significant

Wright Hill Ranch was acquired, in part, to provide public access where appropriate (California State Coastal Conservancy 2007). Wright Hill Ranch Open Space Preserve provides potential opportunities for public access and outdoor education while preserving the land for the protection, restoration, and enhancement of habitat and open space. The District's goal is to identify ways to safely maximize the public's ability to experience, connect with, and understand Wright Hill Ranch Open Space Preserve's distinguishing features in a manner consistent with protection of its conservation values. The Wright Hill Ranch Open Space Preserve Management Plan identifies several short- and long-term management actions to identify opportunities to continue docent-led public access and educational opportunities while protecting natural resources on the Preserve. Docent-led activities are conducted several times a year through LandPaths' outings program contract with the District. No other recreational uses are currently permitted.

The current visitor access will continue in the form of docent-led tours. The Wright Hill Ranch Open Space Preserve Management Plan describes management and protection needs for the Preserve that will apply to the current visitor use and the protection needs would apply to potential future recreational use of the property. However, the actual need for and development of future public access infrastructure is unknown and speculative at this time; therefore, analysis of such use is not evaluated in this document. Continued docent-led access to the Preserve is not expected to increase the use of neighboring regional parks or other recreational facilities, because the current use has not resulted in impacts to other parks from increased use. Therefore, no impact on existing neighborhood and regional parks or other recreational facilities will occur with the Management Plan.

The District intends to provide natural and cultural resources interpretive signage around the property in the short-term and potentially provide additional public education and outreach program opportunities in the long-term. As noted in Section 2.5 of the Project Description, placement of new signs will help reduce and avoid environmental impacts. The educational signs will also alert users of the

need to protect resources; therefore, installation of interpretive signage will have less-than-significant impacts.

4.16 Transportation/Traffic

XVI. Transportation and Traffic: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

XVI.a,b,f) Conflict with Plans, Ordinances, Policies, or Programs Regarding Circulation Performance, Congestion Management, or Public Transit – No Impact

Wright Hill Ranch Open Space Preserve is accessed from Highway 1 using Wright Hill Road, which is gated. The far side of the Preserve is also gated by other landowners to prohibit access to private property. The far end of Wright Hill Road intersects with Coleman Valley Road and is gated and is not used for general traffic or any through traffic. Currently, access to Wright Hill Ranch Open Space Preserve generates small amounts of traffic on Highway 1 from ranching operations and limited visitor use with guided access.

Construction traffic for erosion control and trail improvements will result in a short-term increase in construction-related vehicle trips on Highway 1 and River Road due to construction worker commutes and trucks and equipment deliveries. However, these small-scale management activities will not employ

enough workers or generate enough truck traffic to change the existing traffic load in a noticeable way. Temporary public road closures are not expected with implementation of the Management Plan. In the short term, the Management Plan calls for continuation of the current docent-guided public access, so no changes in traffic will result. Therefore, implementation of short-term management actions will not conflict with plans, ordinances, policies, or programs regarding circulation or transit performance along County roadways.

The Sonoma County Transportation Authority (SCTA) is designated as the Congestion Management Agency for Sonoma County; however Sonoma County does not have an adopted Congestion Management Program. Therefore, no conflict with an applicable congestion management program will occur.

XVI.c) Result in a Change in Air Traffic Patterns – No Impact

Wright Hill Ranch Open Space Preserve is not near any of the six publically used airports in Sonoma County; further, none of the short or long-term management actions will use or influence air traffic patterns. No impacts will occur.

XVI.d) Substantially Increase Hazards due to a Design Feature or Incompatible Land Use – No Impact

The Wright Hill Ranch Open Space Preserve Management Plan includes construction activities for erosion control and trail construction in the short- and long-term. The proposed erosion control actions will reduce or eliminate threats from storm conditions and sudden erosion within the Preserve. The Management Plan actions will not change roadways aside from stabilizing erosional gullies on the Preserve for improved safety and reduction of sedimentation. No impact will occur.

XVI.e) Result in Inadequate Emergency Access – No Impact

Implementation of Management Plan actions will result in a minor increase in vehicle trips on local roadways during construction; however, additional traffic will not be sufficient to alter traffic flow or slow emergency vehicles. No roadways will be blocked or otherwise become impassible due to project activities. Therefore, emergency access will not be impeded, and no impact will occur.

4.17 Utilities and Service Systems

XVII. Utilities and Service Systems: Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

XVII.a,b,e) Exceed Applicable Wastewater Treatment Requirements or Capacity or Require Construction of New or Expanded Wastewater Treatment Facilities – No Impact

Management of the Wright Hill Ranch Open Space Preserve will not involve any flows to wastewater treatment facilities or storm drains. It will not require additional capacity of water systems or expansion of sources. There may be some water used during historic structure preservation activities and during plant establishment periods, but it will be minimal and will not require expansion of existing sources. No impact will occur.

XVII.c,d) Require Construction of New or Expanded Stormwater Facilities or Expanded Water Entitlements – No Impact

Management actions at the Wright Hill Ranch Open Space Preserve will include upgrades to existing ranch and access roads and measures to protect soil and water resources by maintaining native vegetation cover to retain and slow stormwater. No new stormwater facilities, expansion of existing

facilities, or change in a public water system will be required. Planting practices may require the short-term use of irrigation water to increase the survival of newly planted areas. The temporary nature and overall amount of water use will not require an extension of water entitlements. No impacts will occur.

XVII.f,g) Sufficient Landfill Capacity and Comply with Statues Related to Solid Waste – No Impact

Implementation of road and trail improvements will include site excavation, grading, and vegetation clearing. Soil excavated for such improvements will be used as fill elsewhere on the property or hauled off site for recycling or disposal as required by County regulations. Materials generated by actions to preserve the historic structures will be reused on site to the extent feasible. Non-hazardous materials will be taken to an approved local disposal area. Although not anticipated, any excavated materials and debris found to contain unacceptable levels of hazardous materials will be hauled to a licensed disposal site. There are three landfills in the region that have capacity to accept waste material. Therefore, solid waste generated from the management activities at Wright Hill Ranch Open Space Preserve will not exceed landfill capacity. No impacts will occur.

5 Mandatory Findings of Significance

XVIII. Mandatory Findings of Significance:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past, current, and probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

V.a, c) Degrade Environment or Harm Humans – Less than Significant with Mitigation

With implementation of the mitigation measures, the Wright Hill Ranch Open Space Preserve Management Plan does not have the potential to degrade the quality of the environment, including wildlife species or their habitat, plant or animal communities, important examples of the major periods of California history or prehistory or to result in adverse impacts on human beings, either directly or indirectly.

V.b) Cause Cumulatively Considerable Impacts – Less than Significant with Mitigation

Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. This Initial Study/Proposed MND utilizes the “plan” approach, per CEQA Guidelines Section 15130(d), to determine if the proposed Wright Hill Ranch Open Space Preserve Management Plan actions as a whole make a considerable contribution to a significant cumulative impact. Cumulative impacts have been identified using the summary of impacts in the Sonoma County General Plan 2020 Draft and Final EIR (Sonoma County 2008).

The General Plan 2020 Final EIR identified significant cumulative impacts related to land use/ population/housing, transportation, air quality, biological resources, noise, water quality/hydrology,

agriculture, soils/geology, and public services. Each of these cumulative impacts is summarized in more detail below.

Transportation Impacts

Significant and unavoidable transportation impacts were identified in the General Plan EIR related to increased traffic volumes, delay, and decreases in levels of service (LOS) along major highways in the County. Implementation of the Management Plan will not contribute to congestion identified in the General Plan EIR. The LOS standards regulate long-term impacts due to future development and do not apply to temporary, construction-related traffic. As described in the Project Description and in the transportation section, the sizes of management actions are small and will require a minimal number of vehicles to construct. Most management actions will not change operations on the Preserve and will not change traffic levels. Therefore, the Wright Hill Ranch Open Space Preserve Management Plan as a whole will not contribute to the County's cumulative traffic impact.

Cultural Resources Impacts

Significant and unavoidable impacts on cultural resources were identified in the General Plan EIR related to increased development throughout the County. Implementation of the Wright Hill Ranch Preserve Management Plan will not contribute to impacts on cultural resources identified in the General Plan EIR. Implementation of Mitigation Measure CR-1, Identify and Avoid or Minimize Impacts on Historic Resources; Mitigation Measure CR-2, Identify and Avoid or Minimize Impacts on Archaeological Resources; Mitigation Measure CR-3, Procedures for Encountering Human Remains; and Mitigation Measure CR-4, Identify and Avoid or Minimize Impacts on Tribal Cultural Resources require protection of the archaeological resources through identification of known resources in the area for all management activities prior to construction, and through a process to protect resources if found during construction. Therefore, the Wright Hill Ranch Open Space Preserve Management Plan as a whole will not contribute to cumulative impacts on cultural resources.

Air Quality Impacts

Significant and unavoidable air quality impacts were identified in the General Plan EIR related to the emission of ozone precursors, odors/toxic air contaminants, and diesel emissions. Growth in the cities and the cumulative projects would contribute to all of these impacts, resulting in a significant cumulative impact on air quality, particularly for those impacts related to automobile traffic. The Wright Hill Ranch Open Space Preserve Management Plan will not involve an increase in traffic, and therefore, the project will not contribute to cumulative air quality impacts.

Biological Resources Impacts

Significant biological resources impacts were identified in the General Plan EIR related to special-status species, the loss of sensitive natural communities, and reduction in migration. With implementation Mitigation Measure BIO-1a, Avoid Loss of Listed or CNPS 1B Plants and their Habitats; Mitigation Measure BIO-1b, Protect Special-status Butterflies; Mitigation Measure BIO-1c, Protect California Red-legged Frog; Mitigation Measure BIO-1d, Protect Northern Western Pond Turtle; Mitigation Measure

BIO-1e, Protect Nesting Birds during Construction and Other Management Activities; Mitigation Measure BIO-1f, Protect Northern Spotted Owl and Marbled Murrelet; Mitigation Measure BIO-1g, Protect Sonoma Tree Vole; Mitigation Measure BIO-1h, Protect Special-status Bats; and Mitigation Measure BIO-1i, Protect American Badger, require protection of listed species through preconstruction surveys and protection during construction. Therefore, implementation of the Wright Hill Ranch Open Space Preserve Management Plan as a whole will not contribute to cumulative impacts on special-status species.

Water Quality and Hydrology Impacts

Significant water quality and hydrologic impacts were identified in the General Plan EIR related to groundwater consumption, well interference, streambank erosion, and erosion from redirected flood flows. The Wright Hill Ranch Open Space Preserve Management Plan will have no impacts or less-than-significant impacts related to water quality and hydrology. Some short- and long-term management actions will improve water quality and reduce streambank erosion. Therefore, the project will not contribute to any significant cumulative impacts on water quality or hydrology.

Geology and Soils Impacts

Significant geologic impacts were identified in the General Plan EIR related to geologic hazards associated with planned infrastructure expansion. No geologic impacts were identified for Wright Hill Ranch Open Space Preserve Management Plan; therefore, the project will not contribute to any significant cumulative impacts.

Public Services Impacts

Significant impacts associated with the demand for and expansion of public services were identified in the General Plan EIR. Public services will not be affected with implementation of the Wright Hill Ranch Open Space Preserve Management Plan. Therefore, the project will not contribute to any significant cumulative impacts on public services.

6 Preparers

The following Sonoma County Agriculture and Open Space District team members reviewed this Initial Study/Proposed Mitigated Negative Declaration.

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In addition, the District invited comments from the Gold Ridge Resource Conservation District and Sonoma County Department of Regional Preserves.

The following Prunuske Chatham, Inc. (PCI) team members prepared this Initial Study/Proposed Mitigated Negative Declaration.

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8 Acronyms

AU	Animal Unit
BAAQMD	Bay Area Air Quality Management District
Cal-OSHA	California Department of Industrial Relations Division of Occupational Safety and Health
CalFire	California Department of Forestry and Fire Protection
CALUP	Comprehensive Airport Land Use Plan for Sonoma County
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH_4	methane
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalent
lb	pound
EPA	Environmental Protection Agency
MBTA	Migratory Bird Treaty Act
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
NO_x	nitrous oxides
NSCAPCD	Northern Sonoma County Air Pollution Control District
OSHA	Occupational Safety and Health Administration
N_2O	nitrous oxide
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
RDM	residual dry matter
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SCTA	Sonoma County Transportation Authority
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service