Notice of Exemption

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk County of: Marin
Marin Civic Center
3501 Civic Center Dr., Suite 234,
San Rafael, CA 94903

From (Public Agency):
Novato Fire Protection District
95 Rowland Way
Novato, CA 94945

FILED
AUG 2 4 2022
SHELLY SCOTT
MARIN COUNTY CLERK
BY: I. GILARDI, Deputy
21-2022-181

Project Title: Novato Zone Valley Memorial Park Eucalyptus Removal Project

Project Applicant: Novato Fire Protection District

Project Location – Specific: Eucalyptus removal on Valley Memorial Park land adjacent to the Rush Creek Open Space Preserve and residential communities.

Project Location – City:
City of Novato

Project Location – County:
Marin County

Description of Nature, Purpose and Beneficiaries of Project:

The purpose of the proposed project would be to reduce fire-hazardous, invasive eucalyptus forest in an open space area that is adjacent to residential neighborhoods. The proposed project would reduce the wildfire intensity and rate of spread in the event of ignition in the wildland or built environment. Removal of fire-hazardous, invasive species is intended to reduce fire hazards to adjacent communities as well as to decrease the potential for reinvasion of eucalyptus trees in the fuel reduction zone. Additionally, removing invasive, non-natives and replanting with native, riparian vegetation would provide an opportunity for native, less hazardous plant species to recolonize and restore these areas to more natural habitat and fire-resilient habitat.

Name of Public Agency Approving Project: Novato Fire Protection District

Name of Person or Agency Carrying Out Project: Novato Fire Protection District

Exempt Status (check one):

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☐ Common Sense Exemption (Sec. 15061(b)(3));
- ☒ Categorical Exemption. State type and section number: 15304(i). Minor alterations to land for fuel management activities. 15333. Small habitat restoration projects.
- ☐ Statutory Exemptions. State code number:_____

Reasons why project is exempt:
The project is categorically exempt under California Environmental Quality Act (CEQA) Guidelines Section 15304, Class 4 for Minor Alterations to Land and Section 15333, Class 33 for

POSTED 8/24/22 TO 9/24/22

Small Habitat Restoration Projects. A Class 4 exempt project consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. The Class 33 exemption consists of projects not to exceed 5 acres in size to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife. The proposed project would involve removing approximately 1.4 acres of primarily non-native, invasive trees and restoring the project site to a native riparian woodland. The scope of the proposed project is consistent with a minor alteration to the condition of the vegetation and the removal of non-native, invasive, fire-hazardous species to improve habitat and reduce fire hazards within the fuel reduction zone shown in Figure 1.

Additionally, healthy, mature, native trees would be retained; no work would take place within sensitive habitat, including flowing waterways; and no extensive ground disturbance, such as excavation, would take place. There are no facts or circumstances specific to this project that would support an exception to the categorical exemption. No exceptions listed under Section 15300.2 apply.

Lead Agency Contact Person:	**Area Code/Telephone/Extension:**
Lynne Osgood	415.878.2693

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?
   Yes☐ No☒

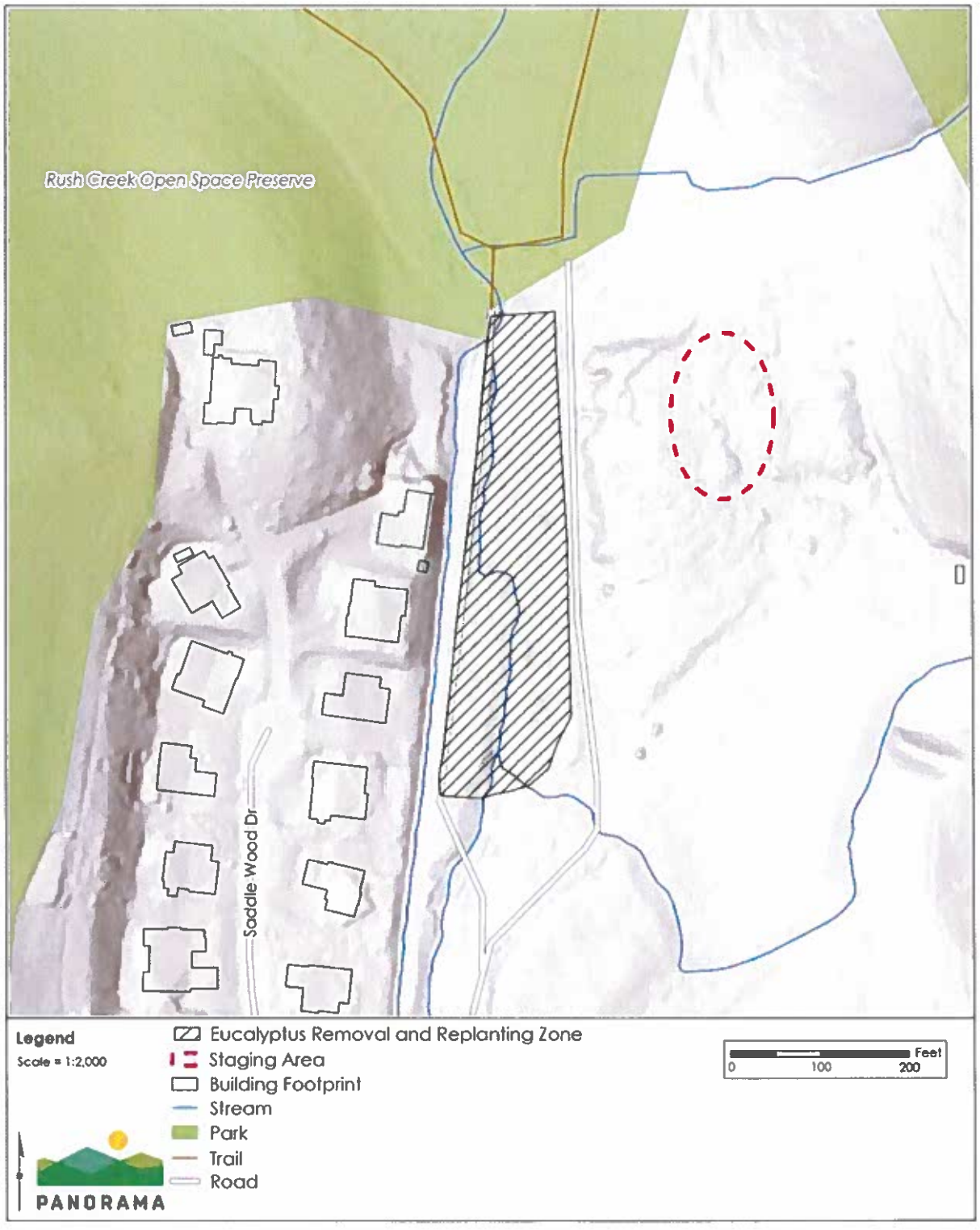
Signature: [signature] Date: 8/24/22 Title: Vegetation Program Manager

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Figure 1 Project Location



State of California - Department of Fish and Wildlife

2022 ENVIRONMENTAL DOCUMENT FILING FEE

CASH RECEIPT

DFW 753.5a (REV. 01/01/22) Previously DFG 753.5a

Print | StartOver | Save

RECEIPT NUMBER:
21 — 08/24/2022 — 181

STATE CLEARINGHOUSE NUMBER *(If applicable)*

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEAD AGENCY EMAIL	DATE
NOVATO FIRE PROTECTION DISTRICT		08/24/2022

COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER
Marin	

PROJECT TITLE

NOVATO ZOME VALLEY MEMORIAL PARK EUCALYPTUS REMOVAL PROJECT

PROJECT APPLICANT NAME	PROJECT APPLICANT EMAIL	PHONE NUMBER
NOVATO FIRE PROTECTION DISTRICT		(415)878-2693

PROJECT APPLICANT ADDRESS	CITY	STATE	ZIP CODE
95 ROWLAND WAY	NOVATO	CA	94945

PROJECT APPLICANT *(Check appropriate box)*

☐ Local Public Agency ☐ School District ☑ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,539.25	$	0.00
☐ Mitigated/Negative Declaration (MND)(ND)	$2,548.00	$	0.00
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW	$1,203.25	$	0.00

☑ Exempt from fee

- ☑ Notice of Exemption (attach)
- ☐ CDFW No Effect Determination (attach)

☐ Fee previously paid (attach previously issued cash receipt copy)

☐ Water Right Application or Petition Fee (State Water Resources Control Board only)	$850.00	$	0.00
☑ County documentary handling fee		$	50.00
☐ Other		$	

PAYMENT METHOD:

☐ Cash ☐ Credit ☐ Check ☐ Other **TOTAL RECEIVED** $ 50.00

SIGNATURE	AGENCY OF FILING PRINTED NAME AND TITLE
X	DEPUTY CLERK: J GILARDI

ORIGINAL - PROJECT APPLICANT | COPY - CDFW/ASB | COPY - LEAD AGENCY | COPY - COUNTY CLERK | DFW 753.5a (Rev. 01012022)

MARIN WILDFIRE PREVENTION AUTHORITY

California Environmental Quality Act Categorical Exemption Determination Memorandum

Date: August 18,2022

Project: Novato Zone Valley Memorial Park Eucalyptus Removal Project

Categorical Exemption Summary

The Novato Fire Protection District (Novato Fire) as the lead agency under the California Environmental Quality Act (CEQA) has determined that the Novato Zone Valley Memorial Park Eucalyptus Removal Project (proposed project) is categorically exempt under CEQA Guidelines Section 15304, Class 4 for Minor Alterations to Land and Section 15333, Class 33 for Small Habitat Restoration Projects. A Class 4 exempt project consists of minor public or private alterations in the condition of land, water, and/or vegetation. The Class 33 exemption consists of projects not to exceed 5 acres in size to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife. The Marin Wildfire Prevention Authority (MWPA) as the responsible agency under CEQA concurs with the Novato Fire Department's determination that the proposed project is exempt under CEQA. The proposed project would involve removing approximately 1.4 acres of non-native, invasive eucalyptus trees and restoring the project site to a native riparian woodland.

Blue gum eucalyptus is the predominant non-native, invasive tree species in the treatment area. Blue gum eucalyptus is highly flammable and promotes fire spread including heavy litter fall, flammable oils in the foliage, and open crowns bearing pendulous branches (Colwell, 1973; Skolman & Ledig, 1990; Gill M. A., 1977; Gill, Groves, & Noble, 1981). The California Invasive Plant Council (Cal-IPC) gives blue gum eucalyptus an overall negative ecological impact rating of "moderate" due to its ability to displace native plant communities, and alter fire regimes, groundwater availability, and habitat for birds (Cal-IPC, 2015). Dense blue gum eucalyptus in an area adjacent to communities and open spaces designated as moderate and high fire hazard severity can increase fire hazard (CAL FIRE, 2007/2008). The proposed project is consistent with the City of Novato General Plan ES4: Habitat Restoration which aims to restore riparian areas to their natural state, including the removal of invasive species, whenever feasible (City of Novato, 2020). The scope of the proposed project is consistent with a minor alteration to the condition of the vegetation and the removal of non-native, invasive, fire-hazardous species to improve habitat and reduce fire hazards within the fuel reduction zone shown in Figure 1.

The following analysis demonstrates the proposed project would not result in adverse environmental effects, supporting the MWPA's determination that the proposed activities are categorically exempt under CEQA. The project would be conducted in compliance with applicable federal, State, and local regulations and under contractual provisions prohibiting work in violation of applicable regulations and plans.

Information regarding the purpose and need for the proposed project, a description of proposed activities, a discussion of why the potential exceptions to a categorical exemption do not apply here, and an assessment of the potential for environmental effects are provided below.

Figure 1 Project Location

Valley Memorial Park Eucalyptus Removal Project - Marin Wildfire Prevention Authority

Background

Marin County voters passed Measure C in 2020, which established a 17-member Joint Powers Authority, the MWPA, to fund and oversee proactive state-of-the-art wildfire prevention and preparedness efforts within the County. Members include several cities and towns, fire protection districts, and community service districts. The MWPA was formed to develop and implement a comprehensive wildfire prevention and emergency preparedness plan throughout almost all of Marin County. This proposed project is a Core Project that is funded by and within the purview of the MWPA. Core Projects include those projects that focus on wildfire detection, notification, and evacuation; vegetation management and fire hazard reduction; grants management; and public education.

Purpose and Need

The purpose of the proposed project would be to reduce fire-hazardous, invasive eucalyptus forest in an open space area that is adjacent to residential neighborhoods. The proposed project would reduce the wildfire intensity and rate of spread in the event of ignition in the wildland or built environment. Removal of fire-hazardous, invasive species is intended to reduce fire hazards to adjacent communities as well as to decrease the potential for reinvasion of eucalyptus trees in the fuel reduction zone. Additionally, removing invasive, non-natives and replanting with native, riparian vegetation would provide an opportunity for native, less hazardous plant species to recolonize and restore these areas to more natural habitat and fire-resilient habitat.

Project Description

Treatment Area

The proposed project would restore native habitat and reduce wildfire risk by removing non-native eucalyptus trees on 1.4 acres adjacent to the Rush Creek Open Space Preserve and residential communities. The project area is primarily characterized by non-native eucalyptus forest. A small stream, Rush Creek, in an earthen channel flows south to north through the project site.

An International Society of Arboriculture (ISA) certified arborist (WE-13197A) surveyed the project area on July 7th, 2022. The majority of the trees identified during the site visit were eucalyptus trees as shown in Table 1 with a few other species represented in the project site including coast live oak and California bay. The understory consisted of French broom, poison oak, and Himalayan blackberry. All of the eucalyptus trees and the coast live oak trees within the project area have a fungal infection in the Hymenochaetaceae family, referred to as heart rot. A scale insect infestation was also found within the project area.

Table 1 Trees on the Project Site

Species	1-4 DBH	5-8 DBH	9-12 DBH	13-16 DBH	17-20 DBH	21-24 DBH	25-30 DBH	31-36 DBH	37-40 DBH	Over 40 DBH	Total
Alive Trees											
California Bay	0	0	0	1	1	0	0	0	0	0	**2**
Blue gum eucalyptus (infected) *	397	93	40	44	52	1	15	14	0	15	**671**
Lemon scented eucalyptus (infected) *	195	39	7	8	6	11	1	0	0	0	**267**
Swamp mahogany eucalyptus (infected) *	15	2	2	0	1	0	0	0	0	0	**20**
Narrow leaved ash (infected) *	8	0	0	0	0	0	0	0	0	0	**8**
Weeping willow*	0	0	1	1	4	3	1	2	1	1	**14**
China berry*	6	0	0	0	0	0	0	0	0	0	**6**
Coast live oak (infected)	33*	13	8	6	3	0	0	1	0	0	**64**
Subtotal	*654*	*147*	*58*	*60*	*67*	*15*	*17*	*17*	*1*	*16*	***1,052***
Dead Trees											
Blue gum eucalyptus*	19	2	1	0	1	0	0	0	0	0	**1**
Lemon-scented eucalyptus*	1	0	0	0	0	0	0	0	0	0	**24**

Species	1-4 DBH	5-8 DBH	9-12 DBH	13-16 DBH	17-20 DBH	21-24 DBH	25-30 DBH	31-36 DBH	37-40 DBH	Over 40 DBH	Total
Subtotal	*20*	*2*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	***24***
Total	**674**	**149**	**59**	**60**	**68**	**15**	**17**	**17**	**1**	**16**	**1,076**

Notes:
* Denotes the trees that are proposed for removal. Coast live oak under 5 inches DBH will be retained to the extent feasible.

The fuel reduction treatment would focus on the removal of dead and downed vegetative material, dead standing trees, and invasive, non-native shrub and tree species within the treatment area. A couple of the trees are on the banks of the earthen channel and many of the trees are within 5 feet of the channel banks. All non-native trees within the treatment area would be removed. Cut stumps of larger trees would remain in place. Small eucalyptus seedlings or other invasive species such as French broom that are present would be removed by pulling. Treatment would include removing eucalyptus duff and litter beneath the trees. Treatment would not include the removal of healthy, mature trees that are scenic. Native trees, such as California bay, or native plant species within the treatment area would be retained to the extent feasible. Contractors would be directed to avoid damage to coast live oaks; some damage may occur to coast live oaks smaller than 5 inches diameter at breast height (DBH).

A total of 983 eucalyptus, 6 China berry, 14 weeping willow, 8 narrow-leaved ash, and up to 33 Coast live oak (under 5 inches DBH) located within the treatment area would be removed, constituting living and dead trees in the area. Smaller eucalyptus and other non-native seedlings or other invasive species such as broom that are present would be removed by pulling. Treatment would include removing eucalyptus duff and litter beneath the trees. Healthy, mature native trees 5 inches DBH or greater would be protected in place and would not be removed from the area. Protections could include flagging, fencing, or trunk protection, depending on proximity to equipment. Native trees 5 inches DBH or greater, such as the two California bay trees, or native plant species within the treatment area would be retained. Contractors would be directed to avoid damage to coast live oaks 5 inches DBH or greater and other native trees; however, some damage may occur. If a coast live oak 5 inches DBH or greater is damaged during treatment that results in the loss of the tree, two native trees would replace every native, living tree that is lost due to project activities. Fuel reduction treatments would avoid the wetted channel within the project area.

Native Plantings

Due to the removal of trees along the riparian corridor that would temporarily reduce shade cover over the creek, a California Department of Fish and Wildlife (CDFW) Section 1600 Streambed Alteration Agreement (1600 permit) is being sought. The project site would be replanted with native, riparian vegetation. Native riparian species would be replanted in the project area in accordance with the 1600 permit Replanting and Monitoring Plan. The landowner may additionally plant coast live oak in the area. Eucalyptus have been studied to have varying degrees of allelopathic effects in which allelochemicals are released from the leaf litter and duff that suppress germination and growth of other plants and greatly reduces native biodiversity. Several studies have shown that unconcentrated fog drip and stemflow from eucalyptus trees inhibit germination of annual grass seedlings and California native plant species (Wolf & DiTomaso , 2016; Watson, 2000). Other studies have found that the germination, seedling growth, and root length of native plant species are not inhibited by the allelochemical compounds in eucalyptus (Nelson, 2016). It is hypothesized that allelopathy by eucalyptus trees may be influenced by rainfall (Watson, 2000; Lange & Reynolds, 1981). Areas of low rainfall are likely to have concentrated allelopathic chemicals in the upper soil layers, which would result in the inhibition of germination and seedling growth. Conversely, winter rainfall would likely leach allelopathic chemicals into the soil profile. If the initial replanting is not successful, additional vegetation would be replanted at the project site based on site monitoring.

Treatment Method

Project treatments would include handheld and ground-based mechanical equipment including chainsaws, loppers, pole pruners, skid steer loaders, cranes, and potentially light-duty tractors. Equipment and vehicles would generally operate on existing roads and trails to transport material to and from the project site. Trees would be directionally felled away from the residential houses. The crowns of the trees would fall towards the eastern side of the project boundary in most cases. Because of lean some trees would need to be removed in sections using a crane. Cranes would be staged and operated from the existing roads. Due to the logistics of the project site, notably the narrow western road, crane outriggers may need to operate on the banks of the earthen channel, but would not operate in the wetted channel. The crane may also be used to remove fallen trees near the wetted channel. Most felled material would be winched to the side roads for disposal. No work would be conducted in the wetted channel. Trees adjacent to the channel would be removed but the stumps would be left in place. Skid steer loaders and light duty tractors would remove larger diameter material from the roads for transport to staging area. Smaller diameter material would, in most cases, be chipped into trucks on the road. A tracked chipper with a winch would be towed to the work areas, depending upon disposal method.

Eucalyptus stumps and broom may be treated with herbicides after cutting. Plants less than 3 inches in diameter that cannot be pulled would be cut and stump treated. The vegetation would be cut with tools and then herbicide painted on using spot treatments, such as the cut-stump method, which has been the most effective control of sprouting (Cal-IPC, n.d.). Should chemical treatments be applied as part of initial or follow-up treatment, herbicide application would be implemented according to all applicable regulations. Herbicide use in aquatic environments are regulated under the Clean Water Act; however, herbicides as part of the proposed project would be implemented by qualified applicators such that runoff or overspray into the channel would not occur (HAZ-5). A licensed pest control advisor would be engaged to provide a written recommendation for an herbicide and application method appropriate to aquatic environments and the project goals.

Biomass Processing

Proposed project debris and cut material under 18 inches to 20 inches diameter would be disposed of through chipping and hauling or chipping and broadcasting or a combination of pile burning and chipping. It is anticipated that an estimated 40 to 50 cubic yards of vegetative debris would be disposed of each workday. Slash vegetative material may be pile burned or chipped with the chipped material spread on site or hauled off-site. On the Valley Memorial Park property, there is a large flat 0.4-acre area on a ridge that could be used for pile burning see Figure 1. If burning is used, piles would generally be 4 feet in diameter and 4 feet in height. Multiple piles may be burned on a single day. Large tree stems (e.g., larger than 18 inches to 20 inches diameter) would be trucked off to be processed at a site with greater capacity for eventual use at a biomass energy plant. Any chipped material not utilized by the landowner would be hauled to Marin Resource Recovery Center, West Marin Compost, or Redwood Landfill.

Workers

A single contractor crew would consist of 3 to 10 workers conducting tree removal activities.

Site Access

Equipment and vehicles would travel on existing roads to the project site. There are roads on the eastern and western side of the project site. The access road to the east of the project site is paved and turns to dirt at the project site's boundary. The road that is to the western side of the project boundary is a dirt road that is open for residential access and fire equipment access. Both roads are flat and would provide easy access for trailers and equipment. The roads are wide enough to fit equipment but is not wide enough for a piece of equipment to turn around provide room to turn around due to an existing drainage ditch. Equipment and vehicles would need to back out of the access roads to a turnaround location. There is an existing graded staging area and parking space on the landowner's property from which equipment or vehicles used for the project could be staged.

Schedule and Duration

All work would be performed weekdays between 8:00 am and 5:00 pm. Treatment may occur over two phases if treatment cannot be completed in one phase. Tree removal would occur over a period of 5 weeks. The tree removal is scheduled to start in October 2022. The tree removal would either be conducted in a single phase in 2022, or tree removal may be conducted in two phases with work occurring for 2 weeks in 2022 and 3 weeks in 2023. Work would not occur during forecast rain events. Eucalyptus stump treatments would usually occur closely after cutting (5 to 10 minutes) by qualified herbicide applicators. Tree removal phasing would occur in a manner to ensure that newly planted areas, per this plan, are not disturbed during the second phase of tree removal.

Replanting would occur over a period of four weeks. The replanting is scheduled to begin in winter 2022. Replanting would either be conducted in a single phase in winter 2022 or early spring 2023, or replanting may be conducted in two phases with work occurring for 2 weeks in winter 2022/early spring 2023 and 2 weeks in winter 2023/early spring 2024. Changes in the planting period may be made with the approval of Novato Fire. Browse protection, if installed, would be removed after 3 years, or earlier if determined by the qualified professional that it should be removed for specific plants.

Irrigation and Maintenance

The condition of the project site would be monitored and reassessed annually by Novato Fire. Follow-up maintenance is anticipated to be conducted by the landowner and involve herbicide treatments for stump resprouting as well as replanting, as needed and discussed above. Temporary irrigation is anticipated to be required to aid in the success of the planted trees and vegetation. Irrigation would be necessary for an estimated 3 to 5 years until the trees become established. Irrigation of the plants would be the landowner's responsibility. Valley Memorial Park currently has irrigation in place in adjacent areas for landscaping purposes. An extension from the existing facilities can be used to irrigate the planted trees. Alternatively, water may be brought to the site either in backpack sprayers or in a truck and the vegetation irrigated when needed.

Project Design and Implementation Features

The MWPA has developed specific design and implementation features adapted from several source documents referenced in footnotes after each name that will be incorporated as

applicable into the project design and implementation for each of its projects. The following specific design and implementation measures are part of the proposed project:

CUL-1 Training[1]

For all activities with the potential for ground disturbance (excluding prescribed herbivory, vegetation and tree trimming, and hand pulling smaller vegetation) all contractors and crew will receive training prepared by and/or conducted by a qualified archaeologist (who meets the U.S. Secretary of Interior's professional standards set forth in 48 CFR Parts 44738-44739 and Appendix A to 36 CFR 61) prior to beginning work. The Tribal Heritage Preservation Officer(s) (THPO) from a local tribe (Federated Indians of Graton Rancheria [Graton Rancheria]) will be notified of the opportunity to attend and/or train crews. The training will address the potential for encountering subsurface cultural resources, recognizing basic signs of a potential resource, understanding required procedures if a potential resource is identified including reporting the resource to a qualified archaeologist and/or THPO, as appropriate, and understanding all procedures required under Health and Safety Code § 7050.5 and PRC §§ 5097.94, 5097.98, and 5097.99 for the discovery of human remains.

CUL-2 Unanticipated Discovery[2]

In the event that a previously unidentified cultural resource is discovered during implementation of an activity all work within a minimum of 150 feet of the discovery will be halted. The resource will be located, identified, and recorded in the MWPA cultural resources GIS database.

The boundaries around the buffered resource will be temporarily marked, such as with fencing or flagging. A qualified archaeologist will inspect the discovery and determine whether further investigation is required. Data regarding archaeological resources will be kept confidential per law. As appropriate, the qualified archaeologist will inform Graton Rancheria's THPO of the discovery. If the discovery can be avoided and no further impacts will occur, the resource will be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort will be required. If the project proponent wishes to continue work in the area, only work performed using hand tools or powered hand tools is allowed, work cannot include ground disturbance and the work area can only be accessed on foot as determined acceptable by the qualified cultural resource specialist/archaeologist.

Alternatively, the qualified archaeologist and/or THPO or tribal monitor will evaluate the resource and determine whether it is:

- Eligible for the CRHR (and a historical resource for purposes of CEQA),
- A unique archaeological resource as defined by CEQA, and/or
- A potential tribal cultural resource (all archaeological resources could be a tribal cultural resource).

[1] Adapted from measures in the Marin Municipal Water District, Final Program Environmental Impact Report for the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP EIR), October 2019.

[2] Adapted from measures in the Midpeninsula Regional Open Space District, Wildland Fire Resiliency Program Final Environmental Impact Report (WFRP EIR), May 2021.

If the resource is determined to be neither a unique archaeological, an historical resource, nor a potential tribal cultural resource, work may commence in the area.

If the resource meets the criteria for either a historical resource, unique archaeological resource, and/or tribal cultural resource, work will remain halted in the buffered area around the resource. No work will occur within the buffered area except those methods previously discussed as determined acceptable by the qualified archaeologist and/or THPO or tribal monitor. After work is completed, all cultural resource delineators (e.g., flags or fencing) will be removed in order to avoid potential vandalism, unauthorized excavation(s), etc.

CUL-3 Cultural Resource Investigation[2]

Prior to implementation of vegetation management activities that have potential for intensive ground disturbance below the ground surface, significant heat from a burn, or use of heavy equipment off established roads and trails, a qualified archaeologist will conduct a records search and/or site-specific survey of the project areas where such disturbances could occur. Outreach with Graton Rancheria will be conducted as early as feasible to obtain information regarding culturally sensitive areas and/or the location of tribal cultural resources within the project areas. Any information provided by Graton Rancheria and/or tribal monitor(s) is confidential and exempt from public disclosure in accordance with statutory and regulatory requirements (Gov. Code § 6254(r), 6254.10; PRC § 5097.98(c); Cal. Code Regs. § 15120(d)). Records searches and field survey results will be shared with Graton Rancheria, as appropriate. Resources found during the records search, tribal outreach, and/or survey will be flagged for avoidance with an appropriate buffer identified by the qualified archaeologist, or the qualified archaeologist may identify modifications to the prescriptions using only hand tools or powered hand tools and access by foot with no ground disturbance, provided it would avoid all impacts to the resources. Any resource found during the site survey will be documented on California State Department of Parks and Recreation cultural resource record forms and a survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures.

CUL-4 Native American Project Notification

For core projects subject to a CEQA determination or compliance and requiring MWPA Board of Directors' approval, Graton Rancheria will be notified and project maps and/or spatial data provided for projects that will potentially entail ground disturbance. Any input from Graton Rancheria regarding specific resources that could be affected will be considered during project implementation through the methods of avoidance as described in CUL-3.

CUL-5 Cultural Resources Monitoring

Based on the results of CUL-3 and -4, cultural resources monitoring may be conducted in order to avoid impacts to known resources. In addition to flagging the resource for avoidance (as described in CUL-3) if monitoring is conducted, a qualified archaeologist will be present during ground disturbance work to ensure the known resources are avoided and protected during project implementation, and if the resource is identified to be pre-contact archaeological and/or a tribal cultural resource, a tribal monitor will be invited to attend during the ground disturbance work.

ET-1 Environmental Training for Biological Resources[3,4]

All crew members and contractors will receive training from a qualified registered professional forester (RPF) or biologist prior to beginning a treatment project where sensitive biological resources could occur in the work areas. The training will describe the appropriate work practices necessary to effectively implement the appropriate project design and implementation features and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of potentially present special-status species with potential to occur; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; best management practices; and reporting requirements. As appropriate, the training will include protocols for work, such as specific trimming methods, where applicable. The training will instruct workers when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF or biologist. The qualified RPF or biologist will immediately contact the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS), as appropriate, if any wildlife protected by the CE Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled).

IP-1 Clean Equipment[4,5]

All crew members, surveyors, and other personnel on site related to project activities will clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, known plant pathogens, or invasive wildlife.

IP-2 Prevent the Spread of Invasive Species and Plant Pathogens[4,5]

Segregate and treat soils and vegetation contaminated with invasive plant seeds and propagules. Treat, as appropriate, to prevent the spread of invasive plants. Treatment may include disposal on site within already infested areas, chipping or pile burning and mulching to eliminate viable seeds, or disposal at an approved cogeneration plant or green waste facility.

Minimize soil disturbance to the greatest extent possible to reduce the potential for introducing or spreading invasive plants or plant pathogens, to protect topsoil resources, and to reduce available habitat for the establishment of new invasive plants.

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[3] Adapted from the measures in the East Bay Municipal Utility District (EBMUD) Practices and Procedures Monitoring and Reporting Plan Section 01 35 44 Environmental Requirements, August 2018.

[4] Adapted from measures in the California Board of Forestry and Fire Protection California Vegetation Treatment Program Final Environmental Impact Report (CalVTP EIR), November 2019.

[5]Adapted from measures in the draft Ecologically Sound Practices Partnership, Ecologically Sound Practices for Vegetation Management (ESP) report, May 2021.

IP-3 Treat Invasive Plants Prior to Seeding[4,5]

Schedule activities to maximize the effectiveness of control efforts and minimize introduction and spread of invasive plants as feasible, with consideration for project objectives and location (e.g., install and maintain fuel breaks, disc lines, and other work before non-native plants set seeds).

IP-4 Retain Native Plants[4,5]

When removing vegetation, focus first on removing invasive and highly flammable species, and dead or diseased vegetation. Retain beneficial, low-fire risk native plant species whenever possible.

GEO-1 Erosion and Soils Loss Stabilization Measures[2]

Soils will be stabilized if a vegetation management activity may leave less than 70 percent groundcover or native mulch/organic material.

For areas between 50 percent and 70 percent ground cover left:

- Sow native grasses and other suitable native vegetation on denuded areas where natural colonization or other replanting will not occur rapidly; use slash or chips to prevent erosion on such areas.
- Use surface mounds, depressions, logs, rocks, trees and stumps, slash and brush, the litter layer, and native herbaceous vegetation downslope of denuded areas to reduce sedimentation and erosion, as necessary to prevent erosion or slope destabilization.
- Install approved, biodegradable erosion-control measures and non-filament-based geotextiles (e.g., coir, jute) when:
- Conducting substantial ground-disturbing work (e.g., use of heavy equipment, pulling large vegetation) within 100 feet and upslope of currently flowing or wet wetlands, streams, lakes, and riparian areas;
- Causing soil disturbance on moderate to steep (10 percent slope and greater) slopes; and
- Removing invasive plants from stream banks to prevent sediment movement into watercourses and to protect bank stability.
- Sediment-control devices, if installed, will be certified weed-free, as appropriate. Sediment control devices will be inspected daily during active work to ensure that they are repaired and working as needed to prevent sediment transport into the waterbodies.

For areas with less than 50 percent ground cover:

- Any of the above measures
- Stabilize with mulch or equivalent immediately after project activities, to the maximum extent practicable.
- If project activities could result in substantial sediment discharge from soil disturbance, as determined by the qualified personnel (e.g., RPF), organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50

percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion.
- Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface.

Once work is completed, the areas will be inspected at least annually if accessible, until groundcover exceeds 70 percent or slopes have stabilized, as determined by a qualified professional. At that time, erosion-control and slope-stability devices may be removed

GEO-3 Soil Saturation and Rain Event Measures[1,2,4]

The following measures will be implemented to prevent soil loss and erosion during rain events and following rain events:

- Shut down use of off-road heavy equipment, skidding, and truck traffic when soils become saturated (from rain event) and unable to support the machines. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur.
- Off-road heavy equipment work will be suspended if the National Weather Service forecast is a “chance” (30 percent or more) of rain within the next 24 hours
- Ground disturbing work (e.g., use of heavy equipment, pulling large vegetation) will not occur during rain events (i.e., 0.5 inch of rain within a 48-hour or greater period≥ 1.5 inches in 24 hours) and may resume when precipitation stops and soils are no longer saturated. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.
- For activities that involve ground disturbing work and have not been stabilized, inspect for evidence of erosion after the first rain event (i.e., 0.5 inch of rain within a 48-hour or greater period) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours.
- For activities that involve ground disturbing work, inspect project areas for the proper implementation of erosion control, as necessary and determined by the qualified personnel (e.g., RPF), prior to the rainy season. If erosion control measures are not properly implemented, the measures will be remediated prior to the first rainfall event.

HAZ-1 Leak Prevention and Spill Cleanup[1,4]

The project proponent will, at a minimum, implement measures that address the following procedures related to the use of hazardous materials during work:

- Proper disposal or management of contaminated soils and materials (i.e., clean up materials)
- Daily inspection of vehicles and equipment for leaks and spill containment procedures

- Emergency response and reporting procedures to address hazardous material releases
- Emergency spill supplies and equipment will be available to respond in a timely manner if an incident should occur
- Response materials such as oil-absorbent material, tarps, and storage drums will be available in the plan area at all times during management activities and will be used as needed to contain and control any minor releases
- The absorbent material will be removed promptly and disposed of properly
- Use of secondary containment and spill rags when fueling
- Discourage “topping-off” fuel tanks
- Workers using fuels or other hazardous materials must be knowledgeable of the specific procedures necessary for hazardous materials cleanup and emergency response
- All diesel and gasoline powered equipment will be maintained per manufacturer's specification, and in compliance with all state and federal emission requirements

HAZ-2 Wildfire Risk Reduction[1,3,4]

The following measures will be implemented during activities that involve the use of equipment that can generate sparks or heat:

- Maintain fire suppression equipment (e.g., shovel, extinguisher) in work vehicles and ensure workers are trained in use
- Closely monitor for ignited vegetation from equipment and tool use
- Train workers to properly handle and store flammable materials to minimize potential ignition sources
- Prohibit smoking in vegetated areas
- Avoid use of spark- and/or heat-generating equipment during high fire danger days (e.g., Red Flag Days and Fire Weather Watch)
- Outfit off-road diesel vehicles and equipment with spark arrestors
- Avoid metal string or blade weed trimmers
- Maintain one fire extinguisher for each chainsaw

HAZ-3 Pile Burning[3]

The following measures will be implemented to reduce hazards associated with pile burning:

- Pile burning will only be allowed on days when fire is less likely to spread (e.g., wind speeds are less than 15 mph).
- Piles will only be constructed in areas where burning can be safely controlled, for example, on the flattest area possible. Bottoms of steep, vegetated hills will be avoided.
- Piles should be constructed with 10 feet of clearance around them.
- Piles will be set back from public roads and trails at a distance to minimize risk to the public or cordoned off from the public.
- All requirements of CAL FIRE, the local fire department, and/or the BAAQMD will be met, including any permit, notification, burn bans, and reporting requirements.

- Have fire suppression crews on-site during the fire season determined by CAL FIRE or the local fire department (typically mid-May to mid-November) during curtain and pile burns.
- Pile burning will adhere to BAAQMD criteria pollutant thresholds and Regulation 5 for open burning.

HAZ-4 Application of Herbicides[4]

- Projects will comply with all herbicide application regulations and ecologically sound integrated pest management principles.
- Herbicide containers will be triple rinsed with clean water at an approved site, and rinsate will be disposed of by placing it in the batch tank for application.
- Herbicide drift to public areas or sensitive areas will be minimized through the following measures:
    - Application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative).
    - No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities.
    - Spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift.
    - Low nozzle pressures will be utilized.
    - Spray nozzles will be kept within 24 inches of vegetation, if spraying.
- For herbicide applications occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet, signs will be posted at each end of herbicide application areas and any intersecting trails notifying the public of the use of herbicides at a minimum 1 day before and 1 day after herbicide use.

HAZ-5 Protect Vegetation and Special-Status Species from Herbicides[4]

The project proponent will implement their approved integrated pest management (IPM) procedures when utilizing herbicides, or the following measures if no IPM is in place that addresses herbicide use in sensitive areas:

- Locate herbicide mixing sites in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway.
- Use only herbicides labeled for use in aquatic environments when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry.

- No terrestrial or aquatic herbicides will be applied within Watercourse and Lake Protection Zones (WLPZs) of Class I[6] and II[7] watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days prior to herbicide application.
- No herbicides will be applied within a 50-foot buffer of federal Endangered Species Act (ESA) or California ESA listed plant species or within 50 feet of dry vernal pools.
- For spray applications in and adjacent to habitats suitable for special-status species, use herbicides containing dye (registered for aquatic use by California Department of Pesticide Regulation, if warranted) to prevent overspray.

NOI-1 Minimization of Noise Disruption to Nearby Neighbors and Sensitive Receptors[4,8]

All projects will comply with applicable local noise ordinances. All powered equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.

Measures to minimize noise disruption to nearby neighbors and sensitive receptors will be implemented as needed. These measures may include but are not limited to:

- Using noise control technologies on equipment (e.g., mufflers, ducts, and acoustically attenuating shields)
- Locating stationary noise sources (e.g., pumps and generators) away from sensitive receptors
- Closing engine shrouds during equipment operations
- Shutting down equipment when not in use. Equipment will not be idled unnecessarily.
- Operating heavy equipment during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship)
- Locating project activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible

[6] A Class I watercourse includes any domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area, and/or fish are always or seasonally present onsite, and includes habitat to sustain fish migration and spawning.

[7] A Class II watercourse has fish always or seasonally present offsite within 100 feet downstream, and or aquatic habitat for nonfish aquatic species. Class II watercourses excludes Class III waters that are tributaries to Class I waters.

[8] Adapted from San Francisco Public Utilities Commission (SFPUC), Standard Construction Measures, July 2015.

NSO-1 Northern Spotted Owl Nesting Season Avoidance[1]

Each project will be reviewed by a qualified biologist to determine if northern spotted owls have potential to occur near proposed project activities. Within areas where northern spotted owl have the potential to occur, work, including mowing with heavy equipment, the mechanical removal of vegetation, or prescribed burning, including pile and broadcast burning, will occur outside of the northern spotted owl nesting season to the extent feasible (February 1 to July 31).

If work must occur during the northern spotted owl nesting season, either NSO-2 or NSO-3 will apply.

NSO-2 Work During Northern Spotted Owl Nesting Season – Surveys[1]

Within an area where northern spotted owl has the potential to occur, when work will occur during the northern spotted owl nesting season (February 1 through July 31), and work is not considered low-impact by a qualified biologist the following measure will apply. Low impact type activities include, but are not limited to, goat grazing, hand pulling of weeds, hand trimming of trees and vegetation with non-mechanized equipment, chipping from existing roadways in residential areas, and use of mechanized equipment adjacent to roads or in residential areas that is a typical noise for the environment. In contrast, high-impact activities may include operation of heavy machinery in wildlands with lower baseline environmental noise, or work which produces noise disturbance for a longer duration than is typical in the environment.

The biologists will determine if a known breeding pair is found within 0.25 mile of the proposed activity (i.e., from existing surveys that season or historic data) and perform a nest check to confirm presence. If no survey data for the season has been completed for the areas, two surveys will be conducted by a qualified biologist (whose qualifications have been approved by the MWPA or lead public agency) for nesting northern spotted owls during the months of April and May preceding the commencement of these activities. At a minimum, the survey area will include all suitable nesting habitats within 0.25 mile of any planned activity sites, and then one of the two options listed below will be implemented. If access cannot be secured for surveys, then work should be delayed until after the nesting season, unless it can be shown that noise generation from the activities and the activities proposed would be below noise and visual disturbance levels for northern spotted owls (refer to USFWS Revised Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California) at the nest site, if known.

- If it is conclusively determined that there are nesting northern spotted owls, planned activities that generate noise (e.g., mowing, heavy equipment usage, crews with hand tools that generate noise) in areas without regular human disturbances from human residency (e.g., leaf blowers, home construction and remodeling, roadways), that are within 0.25-mile of an identified active nest will not begin prior to September 1 unless the young have fledged, at which time work may begin no earlier than July 10. Prescribed burns may only occur within suitable northern spotted owl habitat (as determined by a qualified biologist) during the nesting season if protocol surveys have determined that northern spotted owl nesting is not occurring in the area of planned activity.
- If work must occur within 0.25 mile, and work has been determined to have the potential to impact an active northern spotted owl nest, CDFW and USFWS would be consulted to determine if take could occur and whether further permits are required.

NSO-3 Northern Spotted Owl Habitat Alteration[1]

For projects involving removal of large trees (10-inches DBH or greater) in potential northern spotted owl roosting, or nesting habitat (as identified during the desktop review) in areas without regular human disturbances from human residency, habitat alteration within core use areas (nesting and roosting habitat) will be planned in consultation with a qualified northern spotted owl biologist.

NSO-4 Retain Dusky-footed Woodrat Nests[1,5]

Dusky-footed woodrats are important prey for northern spotted owls. Wherever feasible, project activities will leave dusky-footed wood rat nests intact. If possible, maintain a 3-foot buffer of vegetation around dusky-footed woodrat middens.

NB-1 Nesting Bird Season Avoidance[1,4,5, 9]

Whenever possible, schedule work outside of the bird nesting season, which is generally from February 1 through July 31st[10]. Not all species nest between the regulatory season, and active nests that are encountered year-round are protected.

NB-2 Nesting Bird Surveys [1,4,5]

If work that has the potential to impact nesting birds commences between February 1 and July 31 (during the nesting season), a qualified biologist (whose qualifications have been approved by the MWPA or lead public agency) will conduct a pre-activity survey for nesting birds.

Nesting bird surveys are recommended during the nesting season for work involving mowing with heavy equipment, other vegetation (including tree) removal or limbing and trimming activities, and prescribed (broadcast and pile) burning. Low-impact activities including goat grazing, hand-pulling weeds, and herbicide application do not generally require nesting bird surveys. Determination of need for surveys for low-impact activities should be evaluated on a case-by-case basis in consultation with a qualified biologist or RPF.

Nesting bird surveys will occur within no more than 7 days prior to work to ensure that no nests will be disturbed during vegetation management work. If work pauses for more than 7 days, a follow-up survey will be conducted prior to the restarting of work. Appropriate survey areas will be determined by the qualified biologist depending on the project footprint, type of activity proposed, and suitable habitat for nesting birds. Surveys will be conducted during periods of high bird activity (i.e., 1-3 hours after sunrise and 1-3 hours before sunset). If the qualified biologist determines that visibility is significantly obstructed due to on-site conditions (such as access issues, rain, fog, smoke, or sound disturbance [including high wind]), surveys will be deferred until conditions are suitable for nest detection.

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[9] Adapted from Marin County Parks (MCP), Bird Nesting Survey Training Manual, 2017.

[10] Note that the general nesting season between February 1 and July 31 is a guideline, and that birds may begin nesting beforehand, and complete nesting after these dates. Regardless, active nests are protected year-round. Avian nesting season may begin as early as January 1.

NB-3 Nesting Birds: Active Nest Avoidance[1,4,5,7]

If active nests (i.e., presence of eggs and/or chicks) are observed in areas that could be directly or indirectly disturbed (including noise disturbance), a temporary, species-appropriate no-disturbance buffer zone will be created around the nest sufficient to reasonably expect that breeding would not be disrupted. No work will occur inside the buffer zone.

The size of the buffer zone will be determined by the biologist, by taking into account factors including but not limited to the following:

- Noise and human disturbance levels at the site at the time of the survey and the noise and disturbance expected during the work;
- Distance and amount of vegetation or other screening between the site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds, taking into account factors such as topography, visibility to source of disturbance, noise/vibration, nesting phase, and other case-by-case specifics.

Buffer sizes may be altered during the course of work at the recommendation of the biologist. Raptor nests are subject to additional protections, including during the “branching” phase, when fledglings begin to fly but do not fully leave the nest. Buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified biologist.

If work must occur within the buffer, proceed to NB-4.

NB-4 Nesting Birds - Active Nest Monitoring [1,4,5,7]

If an avoidance buffer is not achievable, a qualified biologist may monitor the nest(s) during work activities within the recommended nest buffer to document that no take of the nest (nest failure) has occurred related to work activities. If it is determined that work activity is resulting in nest disturbance, work should cease immediately.

RB-1 Prework Survey[3,4]

If vegetation management activities would (1) occur in trees with potential for roosting bat species, (2) would include removal or trimming of trees where a bat could be roosting, or (3) would involve removal or trimming of a tree with mechanized equipment adjacent to trees or structures that could have roosting bats and (4) the work would commence between March 1 and July 31, during the bat maternity period, a pre-activity survey will be conducted for roosting bats within 2 weeks prior to work to ensure that no roosting bats will be disturbed during work. This survey can be conducted concurrent with other surveys for other sensitive species. Trees and shrubs within the work footprint that have been determined to be unoccupied by roosting bats, or that are located outside the avoidance buffer for active roosting sites may be removed. Roosting initiated during work is presumed to be unaffected, and no buffer would be necessary.

RB-2 Avoidance of Maternity Roosts and Day Roosts[3]

If active maternity roosts or day roosts are found within the project site, or in areas subject to disturbance from work activities, avoidance buffers will be implemented. The buffer size will be determined in consultation with the qualified biologist or RPF.

RB-3 Bat Roosting Tree Removal – Seasonal Restrictions[3]

If it is determined that a colonial maternity roost is potentially present, the roost will be avoided and will not be removed during the breeding season (March 1 through July 31) unless removal is necessary to address an imminent safety hazard.

Operation of mechanical equipment producing high noise levels (e.g., chainsaws, heavy equipment) in proximity to buildings/structures supporting or potentially supporting a colonial bat roost will be restricted to periods of seasonal bat activity (as defined above), when possible.

RB-4 Bat Roosting Tree Removal – Emergency Removals[3]

Potential non-colonial roosts that must be removed in order to address a safety hazard, can be removed after consultation with a biologist. Removal will occur on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly. Appropriate methods will be used to minimize the potential of harm to bats during tree removal. Such methods may include using a two-step tree removal process. This method is conducted over two consecutive days, and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on Day 1. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed, to not return to the roost that night. The remainder of the tree is removed on Day 2.

SH-1 Riparian Resources – Project Design[4,5]

In riparian areas, treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are representative of healthy stands of the riparian vegetation types that are characteristic of the region. Allowable activities include hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species. Mature, healthy trees will not be removed from a riparian corridor. Any activities conducted within a riparian corridor will be conducted so as to avoid alteration to a bed, channel, or bank of a waterway and all debris, including sawdust, chips, or other vegetative material, will be prevented from entering the bed, channel, or bank of a waterway, unless a permit from the California Department of Fish and Game under Section 1600 is obtained.

SH-3 Minimization of Pile Burning Disturbance[11,12]

Pile burning will not be performed in sensitive habitats, such as serpentine-associated communities, wetlands, or riparian areas. If piles are burned on a different day than piled, the piles should be moved prior to burning to ensure wildlife is not present, such as by re-piling by

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[11] Adapted from Marin County Open Space District (MCOSD). (2015, April). Vegetation and Biodiversity Management Plan. *Best Management Practices.*

[12] Adapted from California Department of Fish and Wildlife (CDFW). (2011). California Endangered Species Act Incidental Take Permit No. 2081-2011-046-03. *Wildfire Hazard Reduction and Resource Management Plan*. East Bay Regional Parks District

hand, or a qualified biologist will inspect the pile prior to burning to ensure wildlife are not present. If moving or inspection of the piles is not feasible, the pile will be lit from one side and allowed to burn slowly to the other side, in order to allow any wildlife to relocate, rather than lighting the entire pile at once.

TR-1 Emergency Access to Project Areas[1,2]

The following measures will be implemented to maintain emergency access:

- At least one week prior to temporary lane or full closure of a public road for vegetation management-related work, the appropriate emergency response agency/agencies will be contacted with jurisdiction to ensure that each agency is notified of the closure and any temporary detours in advance and obtain all required encroachment permits
- In the event of any emergency, roads blocked or obstructed for maintenance activities will be cleared to allow the vehicles to pass.
- During temporary lane or road closures on public roads, flaggers equipped with two-way radios will be utilized where needed to control traffic. During an emergency, flaggers will radio to the crew to cease operations and reopen the public road to emergency vehicles.
- All authorized vehicles at the treatment site will be parked to not block roads when no operator is present to move the vehicle.

TR-2 Traffic Control Measures[3]

Traffic control measures will be implemented to maintain traffic and pedestrian circulation on streets affected by project activities. The following measures may include:

- All traffic control devices will conform to the latest edition of the MUTCD, and as amended by the latest edition of the MUTCD California supplement.
- Any work that disturbs normal traffic signal operations and ensure proper temporary traffic control (lane shifts, lane closures, detours etc.) will be coordinated with the agency having jurisdiction, at least 72 hours prior to commencing worker.
- Flaggers and/or warning signage of work ahead.
- A minimum of twelve (12) foot travel lanes on public roads must be maintained unless otherwise approved.
- Maintaining access to driveways and private roads at all times unless other arrangements have been made.
- Traffic control devices will be removed from view or covered when not in use.
- Sidewalks for pedestrians will remain open if safe for pedestrians. Alternate routes and signing will be provided if pedestrian routes are to be closed.
- Scheduling truck trips during non-peak hours to the extent feasible.

Discussion of Potential Exceptions (CEQA Section Guidelines 15300.2)

(a) Location:
Sensitive habitats, including flowing watercourses and wetted wetland area would be avoided. Riparian woodlands would be encountered for the proposed project but any tree removal would be conducted by hand and alteration to, and deposition of debris avoided within the bed,

channel, or bank of a waterway, except as allowable under the 1600 permit (SH-1). Cranes and tractors would operate generally from existing roadways to minimize ground disturbance. Only herbicides approved for use in aquatic environments would be applied by hand in riparian habitats and only during low-flow periods (HAZ-6). Due to the location, scope, and design of the project, the proposed project would remove trees within the riparian zone and affect riparian habitat. A 1600 permit was submitted for work being conducted within and along the banks of the earthen channel and a Replanting and Monitoring Plan would be implemented to revegetate the project site with native riparian vegetation. The proposed project would be beneficial to the riparian corridor due to the removal of infected fire hazardous, non-native trees and the restoration of native trees within the project area, therefore, exception (a) does not apply.

(b) Cumulative Impact:

Eucalyptus removal and fuel reduction projects are planned within the Novato Zone and greater Marin County but would not be conducted within the same area as this proposed project and would not result in cumulative impacts as defined in CEQA Guidelines Section 15300.2. Ongoing maintenance of the project area would be limited to periodically treating the eucalyptus stumps to prevent resprouting of eucalyptus trees and ensure native plant growth. The visual character of the fuel reduction zone would be modified each time vegetation treatments are implemented as vegetation regrows, due to eucalyptus removal and native plant growth, but the natural character would remain. The design and implementation of this proposed project includes features (e.g., CUL-1, HAZ-5) that ensure that significant effects on environmental resources are avoided over successive years of maintenance. As such, the proposed project would not contribute to any potential significant cumulative effect and therefore, exception (b) does not apply.

(c) Significant Effects due to "Unusual Circumstances":
The proposed vegetation management activities and future maintenance activities are considered routine and are prevalent and typical throughout the County and Bay Area region. Sensitive waterways would be avoided. Significant effects on special-status species would not occur through the design and implementation of the proposed project (e.g., NB-1, RB-1). The proposed project would modify vegetation and revegetate the project area with native species prior to the completion of the project. Therefore, there are no unusual circumstances associated with the proposed project or the environment in which it would be implemented, and exception (c) does not apply.

(d) Scenic Highways:
No designated California State Scenic Highways occur in the vicinity of the fuel reduction zone; therefore, exception (d) does not apply (Caltrans, 2022).

(e) Hazardous Waste Sites:
Per the current government database of hazardous waste sites at the time of this filing, there are no hazardous waste site is located within or adjacent to the fuel reduction zone (SWRCB, 2022). No substantial ground disturbing activities that could unearth potentially contaminated soils would occur; therefore, exception (e) does not apply.

(f) Historical Resources:

The proposed project would involve manual and vegetation trimming and removal and potentially pile burning. No intense ground-disturbing activities would occur. While some hand

pulling of invasive plants could occur, ground disturbance from hand pulling is minimal. As part of the proposed project, workers would participate in a cultural training and the Graton Rancheria would be notified of this proposed project prior to project implementation (CUL-1 and -4). A records search was conducted prior to work that did not identify known cultural resources within the treatment areas (CUL-3) (Far Western, 2022), and should a previously unidentified cultural resource be discovered, work would halt in the area and the resource would be fully avoided or only methods allowed by a qualified cultural resource specialist/archaeologist would be implemented (CUL-2). If any resources are discovered during implementation that require monitoring to continue treatment in the area, a qualified archaeologist would be present and, as appropriate, a tribal monitor would be invited to monitor during ground disturbance (CUL-5). Proposed project activities would not alter any built environment features and would not cause a substantial adverse change in the significance of a known or previously undiscovered historical resource. Therefore, exception (f) does not apply.

Environmental Assessment

Aesthetics

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The visual character within the proposed fuel reduction zone is characterized by riparian woodland that is dominated by blue gum eucalyptus. Vegetation consists of densely forested riparian area with some low-lying vegetation. Viewers in the vicinity of the fuel reduction zone would primarily be nearby residents, recreationalists on open space land, and visitors of the Valley Memorial Park Cemetery.

Equipment and trucks performing the work would be temporarily visible along or staged near the fuel reduction and invasive species removal zone. Changes to the vegetation patterns and form would occur from removal of non-native, invasive eucalyptus and replanting with native plants and tree species. Healthy, mature, native trees would be maintained on the project site. The vegetative material would be chipped and either broadcast on the landowner's property, but off-site, or hauled away from the work area; or pile burned on the landowner's property. These methods of fuel reduction and invasive eucalyptus removal currently occur in the Novato Zone as well as throughout broader Marin County. This type of work and vegetation management is typical of the area and a characteristic part of the existing environment. Eucalyptus removal within the fuel reduction zone would restore the visual character of the area by removing non-native vegetation, while re-planting with native riparian vegetation. The natural vegetated characteristics of the areas would remain, although the appearance would be altered from a eucalyptus forest to native tree, shrub, and grass species. Visual degradation as seen from State or locally designated scenic roads would not occur.

Pile burning, if conducted, would result in visual changes from the staging of debris to allow the vegetation to dry, burning the debris, smoke plumes from the burn, and the appearance of scorched vegetation. Piles would be located at the staging area located on the project map. While piles may be visible to the public, pile burning would be temporary. Pile burns may result in smoke plumes but would generally be smaller, although smoke may be visible from a

distance. Pile burns would typically last a day, and visual exposure to the public from smoke plumes would be minimal. Significant adverse effects to aesthetics would not occur.

Agriculture and Forestry Resources

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The proposed eucalyptus removal activities would not convert designated farmland to non-agricultural uses. Proposed project activities would primarily involve the removal of non-native, invasive, and diseased trees within the project area. Healthy, mature, native trees would be maintained on the project site. While non-native eucalyptus and other non-native trees would be removed, the proposed project site would be replanted with native trees and plants. The proposed project would not result in the loss of forest land, nor would it convert forestry land to non-forestry use. Adverse effects on agriculture and forestry resources would not occur.

Air Quality

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Vehicles and equipment for fuel reduction activities would emit diesel particulate matter and criteria air pollutants. In a typical day, it is assumed that worker trucks, chainsaw, light-duty tractor, chipper, and mechanical hand tools would operate for a few hours per crew and up to one off-haul trucks would travel to a green waste disposal center a day. No tilling or grading activities that could generate fugitive dust emission would occur.

Pile burning may occur instead of chipping to dispose of vegetative debris depending on the conditions of the work area. Pile burning would emit air pollutants including particulate matter. Pile burning of vegetative debris would comply with restrictions required by BAAQMD's Regulation 5. The piles of debris burned in any one year and any ongoing treatment activities would not exceed the BAAQMD significance thresholds (Urbanski, 2014; USDA, 2022; USDA, 2014). Pile burning would be conducted by qualified professionals in accordance with the burn permit and standard industry practices including the California Forest Practice Rules, which would ensure the safety of workers conducting the pile burns. Significant air quality impacts would not occur.

Biological Resources

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Biological database searches for the vicinity of the fuel reduction zones were conducted (CDFW, 2022; CNPS, 2022). Of the species identified during the database search, species were determined to have potential to occur within the work areas if the species is known to

occur in the vicinity of the sites and if the sites or immediate vicinity contains suitable habitat to support these species.

Special-Status Plants and Sensitive Vegetation Communities

Riparian habitat occurs along and near the fuel reduction zone. No critical habitat for sensitive plants occurs within the vicinity of the work area. No serpentine soils are documented within the proposed project area and therefore serpentine-associated communities are not present (USDA, 2022). No special-status plant species have a moderate potential to occur within the fuel reduction area (refer to Table 2 for information and Figure 2 for locations of known occurrences in relation to the proposed fuel reduction zone).

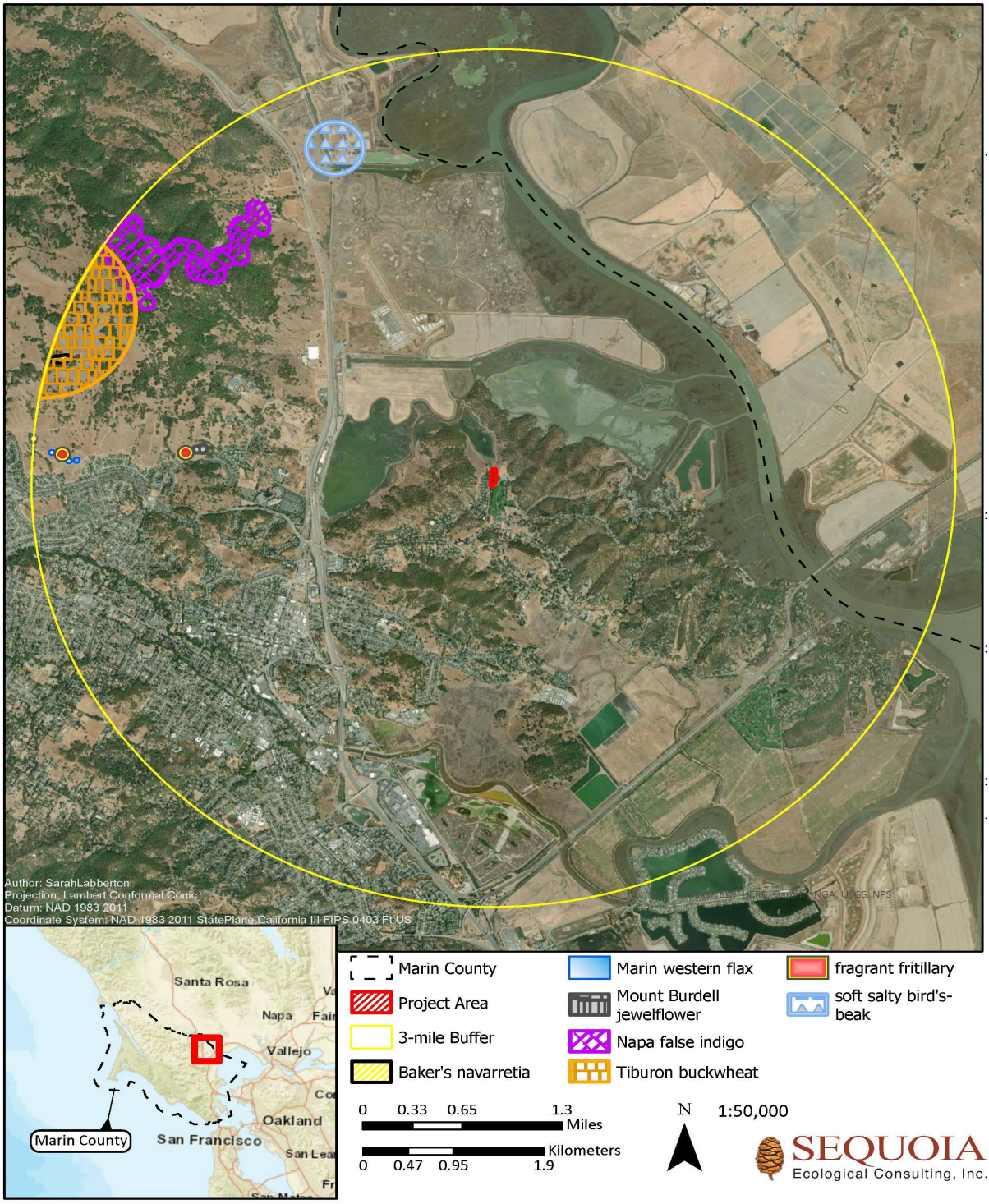
The channelized waterway bisecting the project site meets CDFW definitions of waters of the State and is regulated under Section 1602 of the California Department of Fish and Game Code. The tree removal would generally focus on removing non-native invasive eucalyptus trees that are located in the riparian zone on either side of an earthen channel (IP-4). Proposed project equipment may operate from the banks or partially within the channel. Due to the proposed alteration of the riparian habitat along the channel and the potential for operation of equipment from the channel banks, the proposed project would require a Streambed Alteration Agreement from CDFW for project activities. Erosion and soil stabilization measures would be implemented to minimize soil loss and prevent sediment discharge into the channel should activities reduce groundcover (GEO-1). The project site would be replanted with native riparian vegetation which would encourage the reestablishment of special-status plant species and could lead to increased biodiversity, plant productivity, and habitat complexity compared to the existing mostly non-native eucalyptus trees (Jackson, Hodson, Fhyrie, & Calegari, 2014).

Pile burning may be conducted as a vegetation disposal method, but would occur in a previously disturbed upland area, away from the riparian corridor. Material would not be piled and burned in sensitive habitats (SH-3). Pile burns would affect a relatively small area.

Herbicides may be applied for eucalyptus stump and other non-native species treatment to prevent resprouting, minimizing risk to non-target species. Herbicides would not be applied within a 50-foot buffer of any ESA or California ESA listed species (HAZ-5). Workers would receive training from a qualified professional prior to beginning the vegetation treatments in areas where sensitive biological resources could occur. Training would include identification of special-status plant species and sensitive communities for avoidance (ET-1).

Vegetation at project site currently is infected with fungus and infested with insects. The fungal infection can be transported off site via footwear. Scale insects could be transported off site; however, it is a rare occurrence. Workers would clean equipment and handle vegetation to avoid spreading invasive species and plant pathogens when moving between different proposed project locations (IP-1, IP-2, IP-3). All crew members and personnel working on site would clean all clothing, footwear, and equipment used during treatments when entering and leaving the project site (IP-1). Replanting of the project site would occur soon after vegetation removal in order to minimize the introduction and spread of invasive plants (IP-3). All sensitive plant species have a low to no potential to be impacted by vegetation removal activities with the worker training, as shown in Table 2. Significant impacts on native vegetation communities and special-status plants species would not occur.

Figure 2 Special-Status Plant Occurrences



Special-Status Wildlife

Two special-status wildlife species have a moderate potential to occur within the fuel reduction zone (refer to Table 2 for information and Figure 3 and Figure 4 for locations of known occurrences in relation to the project site). No critical habitat occurs in or adjacent to the work areas (USFWS, 2022). Workers would be trained to identify and avoid the types of wildlife species with a potential to occur in the work areas (ET-1).

Migratory birds and birds of prey have a high potential to nest or forage within the project site, and are protected under the Migratory Bird Treaty Act and Sections 3503 and 3503.5 of the California Fish and Game Code. Proposed project activities are currently planned to occur outside of the nesting season, but follow up maintenance activities could occur from February 1 to July 31, during which time appropriate nesting bird and/or maternity roosting bat surveys would be conducted to avoid any effects to nesting birds and maternity roosting bats, including the pallid bat, which has a moderate potential to occur within the project site (per NB-1, NB-2, NB-3, NB-4, RB-1, RB-2, RB-3, RB-4). If active nests are observed at the project site, an avoidance buffer would be implemented, or a qualified biologist may monitor the nests during work activities if an avoidance buffer is not achievable (NB-3, NB-4). The western pond turtle has a moderate potential to occur in the project site but would be included in the worker training for avoidance and work stoppage, if encountered (ET-1).

The monarch butterfly was not identified as having a potential to occur in the biological desktop review, because the known and historic occurrences are greater than 3 miles from the proposed project site, and monarch overwintering is not anticipated at this site. Recent research in monarch overwintering has demonstrated that monarchs do not have a preference for eucalyptus trees, and utilize native tree species more than anticipated (Xerces Society, 2016). Therefore, the removal of non-native eucalyptus trees in this fuel reduction zone would not remove overwintering habitat for monarch butterflies.

Critical habitat for northern spotted owl is not present within the project area. Several occurrences are documented within 3 miles of the proposed project, but none are located within 1 mile of the project site. As such, there is a low potential for northern spotted owl to occur within the project area. Significant impacts on special-status wildlife species would not occur.

Wetlands

A stream bisects the project site and other drainages occur adjacent to the proposed project work areas as shown in Figure 5 (USFWS, 2022). Proposed project activities would occur adjacent to the channel that flows through the project site and within the riparian corridor. As discussed above, work within and along the banks of the channel would require a CDFW Section 1600 permit. Eucalyptus stumps may be treated with herbicides after cutting using spot treatments. No herbicide spraying would occur at the project site. Herbicide mixing sites would occur in areas devoid of vegetation and away from waterways (HAZ-5). Only herbicides approved for use in aquatic environments would be applied by hand in riparian habitats and only during low-flow periods (HAZ-5). Therefore, there is no potential for herbicides to enter waterways. Training would ensure that workers conducting manual and mechanical activities to avoid wetlands (ET-1). Significant impacts on wetlands would not occur.

Figure 3 Special-Status Wildlife Occurrences

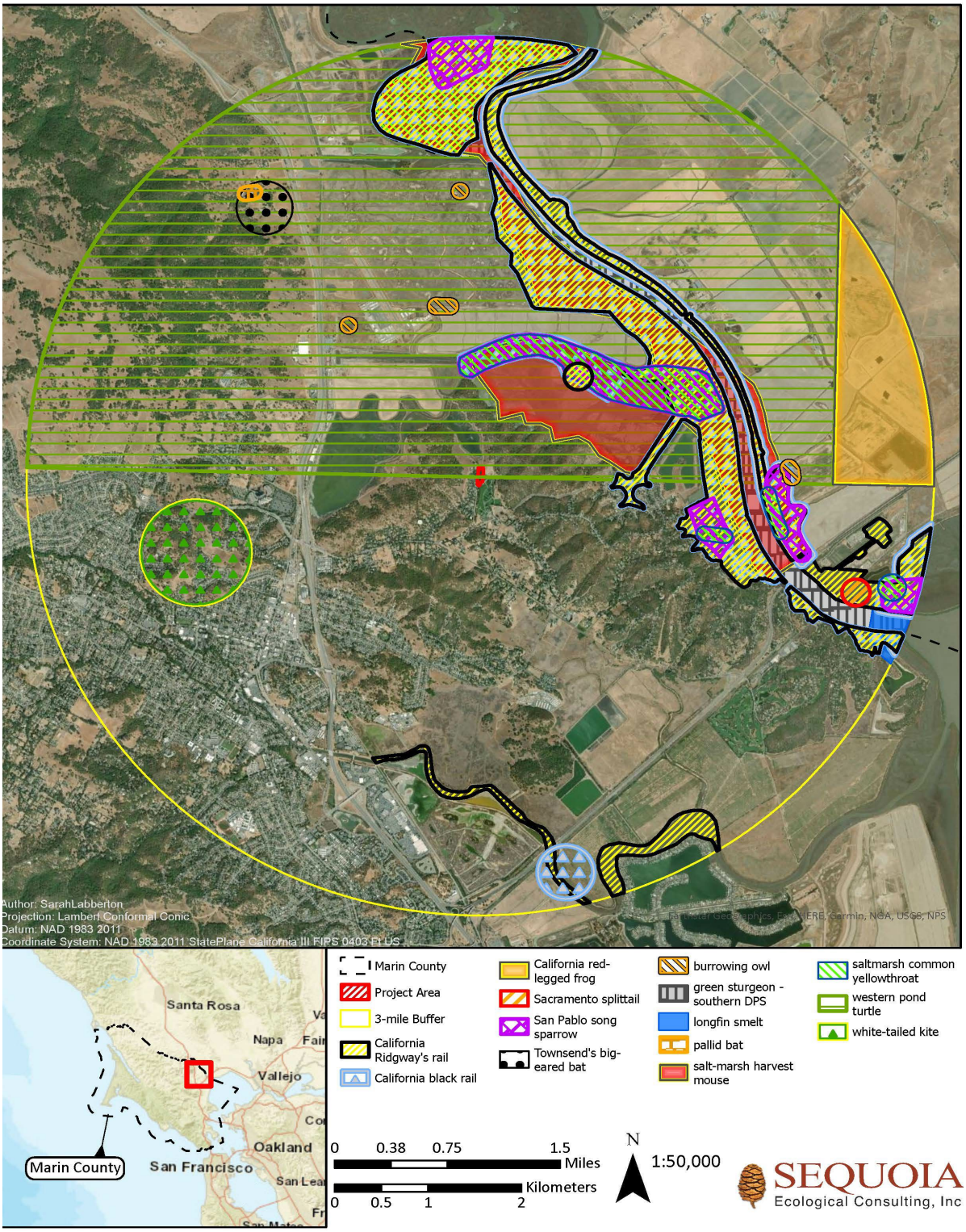


Figure 4 Northern Spotted Owl Observations

Figure omitted to protect northern spotted owl nest locations.

Figure 5 Wetlands and Waterways

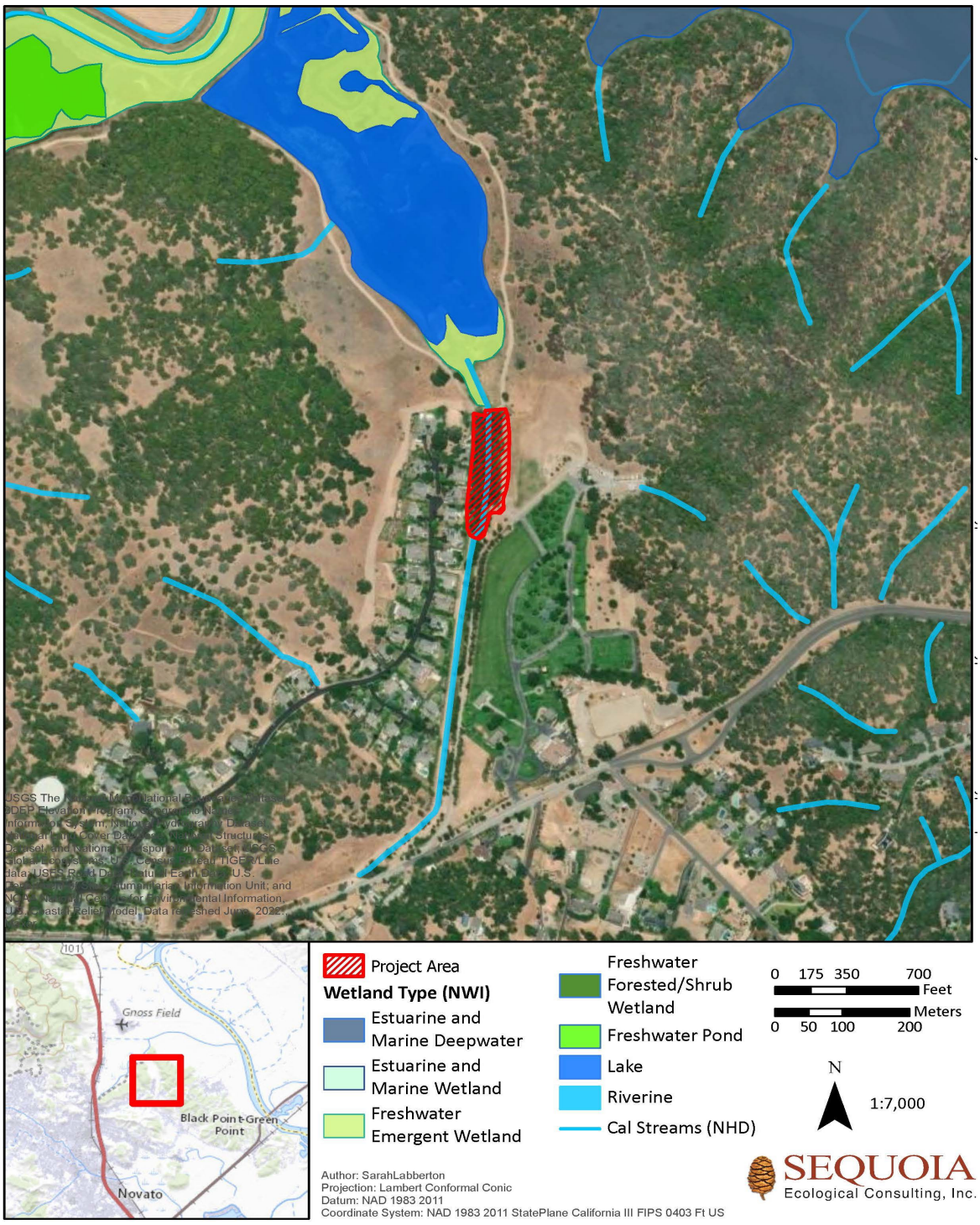


Table 2 Special-Status Species with Potential to Occur in the Project Vicinity

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Sensitive Plants					
Amorpha californica var. napensis	Napa false indigo	CNPS 1B.2	Wetland, riparian woodland	Low; potentially suitable habitat near the project area, and known occurrences within the 3 mile buffer but not in proximity to work area.	Low; can be identified and avoided with training (ET-1).
Chloropyron molle ssp. molle	soft salty bird's-beak	FE, CNPS 1B.2	Salt grass/pickleweed marshes at or near the limits of tidal action	Low; potentially suitable habitat near the project area, and known occurrences within the 3 mile buffer but not in proximity to work area.	Low; can be identified and avoided with training (ET-1).
Eriogonum luteolum var. caninum	Tiburon buckwheat	CNPS 1B.2	Chaparral, coastal prairie, valley grassland, serpentine endemic	None; no serpentine habitat near project area, known occurrences within the 3 mile buffer but not in proximity to work area.	None
Fritillaria liliacea	fragrant fritillary	CNPS 1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland; serpentine.	Low; potentially suitable habitat near the project area, and known occurrences within the 3 mile buffer but not in proximity to work area.	Low; can be identified and avoided with training (ET-1).
Hesperolinon congestum	Marin western flax	FT, CT, CNPS 1B.1	Serpentine, grassland	None; no serpentine habitat near project area, known occurrences within	None

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				the 3 mile buffer but not in proximity to work area.	
Navarretia leucocephala ssp. bakeri	Baker's navarretia	CNPS 1B.2	Freshwater wetlands, Northern oak woodland, foothill woodland, valley grassland, wetland-riparian	Low; potentially suitable habitat near the project area, and known occurrences within the 3 mile buffer but not in proximity to work area.	Low; can be identified and avoided with training (ET-1).
Streptanthus anomalus	Mount Burdell jewelflower	CNPS 1B.1	Ecotone between oak woodland and grassland, Serpentine	None; no serpentine habitat near project area, known occurrences within the 3 mile buffer but not in proximity to work area.	None
Sensitive Wildlife					
Acipenser medirostris pop. 1	green sturgeon - southern DPS	FT	Aquatic	None; work will not be conducted in aquatic habitats	None
Antrozous pallidus	pallid bat	SSC	Roosts in large diameter trees and abandoned buildings	Low; potentially suitable habitat within the project area, and there are known occurrences within the 3 mile buffer but not in proximity to work area.	Low; work will occur outside the bat maternity roosting period or surveys conducted and roosting trees avoided. Bat identification and roosting avoidance will be included in the environmental training for crews (RB-1, RB-2, RB-3, RB-4, ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Athene cunicularia	burrowing owl	SSC	Nests in grassland burrows	Low; some potentially suitable habitat near project area; 4 occurrences documented within 3 miles of project area.	Low; work would occur outside nesting season or surveys will be conducted and active burrows avoided (NB-1, NB-2, NB-3, NB-4). Species will be included in environmental training to ensure avoidance (ET-1).
Corynorhinus townsendii	Townsend's big-eared bat	SSC	caves, mines, bridges, building, rock crevices, tree hollows in coastal lowlands, and cultivated valleys; prefer roosting in caves or other similar open spaces	Low; potentially suitable habitat near project area, and there are known occurrences within the 3 mile buffer but not in proximity to work area.	Low; work will occur outside the bat maternity roosting period or surveys conducted and roosting trees avoided. Bat identification and roosting avoidance will be included in the environmental training for crews (RB-1, RB-2, RB-3, RB-4, ET-1).
Elanus leucurus	white-tailed kite	FP	open oak grassland, desert grassland, farm country, marshes with trees for perching and nesting	Low; potentially suitable habitat near project area, and there are known occurrences within the 3 mile buffer but not in proximity to work area.	Low; work would occur outside nesting season or surveys will be conducted and active nests avoided (NB-1, NB-2, NB-3, NB-4). Environmental training will include species identification (ET-1).
Emys marmorata	western pond turtle	SSC	Freshwater ponds and streams	Low; suitable habitat will be excluded from the project area, but	Low; environmental training will include species identification (ET-1) and

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				occurrences are recorded near project area.	channel is surrounded by eucalyptus grove, which is unlikely to be used by turtle.
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	SSC	Coastal riparian and wetland areas, Requires thick continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; unlikely to nest or forage in area. Environmental training will include species identification (ET-1).
Laterallus jamaicensis coturniculus	California black rail	FT, FP	Wetlands and marshes	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; unlikely to nest or forage in area. Environmental training will include species identification (ET-1).
Melospiza melodia samuelis	San Pablo song sparrow	SSC	Marshes and wetland edges	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; unlikely to nest in area. Environmental training will include species identification and guidance on avoidance of wetlands and marshes (ET-1).
Pogonichthys microlepidotys	Sacramento splittail	SSC	Aquatic	None; work will not be conducted in aquatic habitats	None
Rallus obsoletus	California Ridgway's rail	FE, CE, FP	Saltwater marshes, freshwater marshes, and mangrove swamps	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; unlikely to nest or forage in area. Environmental training will include species identification (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Rana draytonii	California red-legged frog	FT, SSC	Breeds in ponds/slow moving streams, may use grassland and oak woodland for dispersal and foraging	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; environmental training will include species (ET-1).
Reithrodontomys raviventris	salt-marsh harvest mouse	FE, CE, FP	Marshes and wetland edges	Low; suitable habitat will be excluded from the project area, but occurrences are recorded near project area.	Low; environmental training will include species identification (ET-1).
Spirinchus thaleichthys	longfin smelt	FC, CT	Aquatic	None; work will not be conducted in aquatic habitats	None
Strix occidentalis caurina	Northern spotted owl	Federally threatened, California state Threatened	Dense canopies of mature and old-growth forests. Nests in tree hollows or reused raptor nests.	Low; suitable habitat not present in project area but occurs within 3 miles.	Low; species will be included in environmental training to ensure avoidance (ET-1).

Notes:

Species with occurrences within 3 miles of project areas were examined. Species which are considered "extirpated" or those with occurrence data greater than 75 years old were removed from the analysis as they are not anticipated to occur in the vicinity of the work area. Species with occurrence data which was greater than 50 years old was examined for inclusion on a case-by-case basis.

FE	Federally Endangered	CR	California Rare
FT	Federally Threatened	CC	California State Candidate
FC	Federal Candidate	FP	Fully Protected

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
CE	California State Endangered		SSC	California State Species of Special Concern	
CT	California State Threatened		CNPS	California Native Plant Society Ranks	

Source: (CDFW, 2022; CNPS, 2022; CDFG, 2003; Hickman, 1993; Stebbins, 2003)

Cultural Resources and Tribal Cultural Resources[13]

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Equipment and vehicles for the fuel reduction and invasive eucalyptus removal activities would operate from existing fire roads adjacent to the fuel reduction and invasive species removal zone. No intense ground disturbing activities (e.g., discing) would occur. The proposed project would utilize the cut stump treatment method, and stumps would be left in place to decay. While some hand pulling of invasive species may occur, the potential to disturb cultural resources is generally low since this work results in little ground disturbance and no heavy equipment. Workers would participate in a cultural training (CUL-1 and -4). Should a previously unidentified cultural resource be discovered by workers, work would halt in the area and the resource would be fully avoided until the resource is reviewed by an archaeologist (CUL-2). If any resources are identified during the cultural records search or discovered during implementation that require monitoring to continue treatment in the area, a qualified archaeological would be present and, as appropriate, a tribal monitor would be invited to monitor during ground disturbance (CUL-5).

A cultural resources records search was conducted prior to the disturbance and no known recorded cultural resources were found to occur within the fuel reduction zone (CUL-3). The records results identified one known cultural resource nearby to the project area (Far Western, 2022). The eucalyptus grove is over 50 years old based on the records review. An inventory survey was conducted of the fuel reduction zone due to the potential for Native American archaeological resources and to determine if there was a potential for the eucalyptus grove to be an eligible resource. No evidence of cultural resources was found and the eucalyptus (DeBaker, 2022).

Pile burning would not cause ground disturbance. Heat from a wildfire or a prescribed burn may scorch, create a buildup of residue on the resource, fracture the resource, or destroy the resource (Sturdevant, Skalsky, Wienk, & Dolan, 2009). Pile burning would only be conducted in an area that is heavily disturbed and graded on the landowner's property which would ensure avoidance of any cultural resources (CUL-3). Significant impacts on cultural resources and human remains would not occur.

Energy

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The vehicles and equipment conducting the fuel reduction activities would consume energy, including gas, diesel, and motor oil. Vehicle engines and fuel used during implementation of the proposed project would comply with State and local energy reduction and efficiency requirements. The use of fuel to implement the proposed project would be minimal and the

[13] No tribal consultation requirement is associated with filing a notice of exemption per Assembly Bill 52 (PRC §21080.3.1.(b)).

proposed fuel consumption would, additionally, be considered beneficial and not wasteful given the positive outcome of the work to remove invasive, non-native eucalyptus trees. Implementation of vegetation fuel reduction activities would not cause a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Geology and Soils

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Vehicle travel to the fuel reduction zone would occur on existing paved roads. Work areas would be accessed on foot, and operation of heavy equipment would generally occur using the adjacent existing roads in the area. While the use of established unpaved routes could result in erosion, impacts on any one area from travel would be limited due to minimal use, typically only a day or two. The larger non-native trees or plants that cannot be pulled would be cut stump treated, and stumps would be left in place to decay.

After the non-native tree removal is completed, erosion and topsoil loss through loss of root-soil matrix strength if root systems die is expected to be minimal. The rate at which roots lose strength after tree death has been studied in a variety of forest types. In North America, a 50 percent reduction in root reinforcement was observed to occur 14 to 66 months (just over 1 year to 5.5 years) after conifer tree removal, dependent upon species and other variables (O'Loughlin & Watson, 1979) Conservatively, a loss of 50 percent root strength could be expected after removal of eucalyptus after a little more than a year, but annual root growth of native seedlings could be substantial (USDA Forest Service, 2002). Root systems of larger vegetation would be left in place, minimizing the potential for erosion. No serpentine soils, which are typically vulnerable to erosion, are documented within the proposed project area (USDA, 2022). While some soil types present in the fuel reduction zone may be more prone to erosion than others, vegetation removal and cutting that maintain at least 70 percent of groundcover would not result in substantial erosion (Lang & McDonald, 2005). Seedlings and native species would be planted and start recolonizing as soon after eucalyptus removal as possible, which would help to stabilize the soil. Erosion control devices would be installed (GEO-1) in areas where erosion could occur. Pulling of large vegetation, if needed in discrete locations, would not occur during rain events or when soils are saturated (GEO-3).

Vegetation debris piles are localized and relatively small in size. Burn scars from pile burning would not be significant enough to result in increased soil erosion and topsoil loss. Significant impacts related to erosion and loss of topsoil would not occur.

Greenhouse Gas Emissions

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Vegetation thinning activities would involve eucalyptus and other non-native tree removal and pile burning within the fuel reduction zone. Greenhouse gas (GHG) emissions from pile burning would vary daily depending on the number of piles burned each workday. However, pile burns would have low GHG emissions compared to GHG emitted from catastrophic wildfires. Use of

vehicles and equipment during these activities and vehicle travel to the treatment area would generate some GHG. Proposed project activities would not generate significant quantities of GHG emissions[14].

The proposed project would involve non-native tree removal and healthy, mature, native trees would be retained. Additionally, native trees would be replanted on the project site following removal of the non-native species. Due to the current fuel loads associated with the non-native trees, it is anticipated that a net release of carbon from removal of vegetation could occur, at least in the near-term following removal of the non-native trees while the native species grow. The fluctuation would be insignificant compared to overall carbon stock in Marin County. Significant greenhouse gas emission impacts would not occur.

Hazards and Hazardous Materials

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Trucks, vehicles, and equipment are used for ongoing vegetation management throughout Marin County. Workers handling hazardous materials are required to adhere to Occupational Safety and Health Administration (OSHA) and Cal/OSHA health and safety requirements to protect workers and minimize risks of accidental spills of fuels and lubricants. As part of the proposed project, spill prevention and response measures would be implemented that would ensure that hazardous materials are properly stored on-site and that any accidental releases of hazardous materials would be properly controlled and quickly cleaned up (HAZ-1). The proposed project would comply with all herbicide regulations HAZ-4), including the U.S. Environmental Protection Agency (EPA) Hazardous Materials Transportation Act, Federal Insecticide, Fungicide, and Rodenticide Act, and the Agricultural Worker Protection Standards (WPS). Herbicides prohibited by the EPA would not be applied, and the proposed project would comply with the requirements of the WPS to protect workers applying herbicides from occupational exposure. The proposed project would also require the minimization of herbicide drift to public areas, herbicide containers would be triple rinsed at an approved site, and signage would be placed in any herbicide application area within 500 feet of adjacent public recreation areas (HAZ-4). No known existing contamination from previous uses occurs in the area (SWRCB, 2022).

Pile burning or air curtain burning would occur in areas of lowest risk for fire spread and under conditions to ensure control of the burn. Burning would only be performed with a burn permit by qualified personnel. Pile burning would adhere to all BAAQMD Regulation 5 Open Burning requirements. Work crews would maintain fire suppression equipment in work vehicles (HAZ-2). Significant impacts related to hazards and hazardous materials would not occur.

[14] BAAQMD has established thresholds of significance for GHG emissions meant primarily for evaluating GHGs associated with land-use development or stationary-source projects, but the thresholds are not recommended for vegetation-management projects (Flores, 2020).

Hydrology and Water Quality

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The fuel reduction area would be accessed using existing fire roads adjacent to the work area. Vegetation would be removed along the banks of the earthen channel. A CDFW 1600 permit application was submitted for tree removal along the channel and a replanting and monitoring plan was prepared for revegetation of the project site. No fill would be discharged in the waterway and therefore a Clean Water Act Section 404 permit is not required. Vegetation trimming, or thinning would be conducted by hand and alteration to, and deposition of debris avoided within the bed, channel, or bank of a waterway (SH-1). Herbicide mixing would occur away from waterways in areas devoid of vegetation, and only herbicides approved for use in aquatic environments would be applied by hand in riparian habitats (HAZ-5). Hand pulling of eucalyptus seedlings could occur within the fuel reduction zone. Eucalyptus trees would be removed but the stumps and roots would be left in place to decay. Eucalyptus removal would not result in significant ground cover removal and, thus, significant erosion and subsequent sedimentation. Erosion control measures would be implemented (GEO-1) to minimize erosion and sedimentation from tree removal. Replanting with native vegetation would occur as soon after tree removal as possible to limit soil exposure. Native plant restoration would promote soil binding and soil protection and would not increase erosion or sedimentation. Burn piles would generally only be 4 feet in diameter and would not impact a large enough area to cause a significant change in stormwater runoff patterns that could result in sedimentation or siltation. Erosion and subsequent sedimentation of waterways would not occur. Significant water quality impacts would not occur.

Land Use and Planning

Question	Yes	No
Relevant to the project?	☐	☒
Potential for significant impact?	☐	☒

Implementation of treatment activities would not involve any new development or changes to land uses that could physically divide a community. The proposed project is consistent with Novato Ordinance 2019-2 Fire Code, the objectives of the Marin Wildfire Prevention Authority, and the Marin County Community Wildfire Protection Plan (2020). All activities conducted would comply with local land use regulations and policies.

Mineral Resources

Question	Yes	No
Relevant to the project?	☐	☒
Potential for significant impact?	☐	☒

Fuel reduction activities would not result in the loss of availability of a known mineral resource because the work would occur within the fuel reduction zone and would not permanently alter any features. Vegetation clearance is intended to reduce wildfire risk and would not alter land uses, access, or subsurface areas that could impact mineral resources.

Noise

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The proposed vegetation thinning activities would occur during weekdays from 8:00 am to 5:00 pm. This timeframe would conform with the appropriate noise ordinance (i.e., City of Novato Noise Ordinance §19.22.070) [15], which limits construction activities and other related work to Monday through Friday 7:00 am to 6:00 pm and Saturday from 10:00 am to 5:00 pm for the City of Novato Noise Ordinance. Work would progress along the roadways, limiting noise in any one location to a few hours. Measures to minimize noise disruption to nearby neighbors would be implemented, as needed (NOI-1). Exceedances of local noise standards would not occur (given the short duration of noise generation in any one location and existing noise levels) and significant noise impacts would not occur.

Population and Housing

Question	Yes	No
Relevant to the project?	☐	☒
Potential for significant impact?	☐	☒

The workers implementing the fuel reduction activities are anticipated to be sourced from existing contractor crews in the region. As such, this proposed project would not induce population growth. No impact related to population and housing would occur.

Public Services

Question	Yes	No
Relevant to the project?	☐	☒
Potential for significant impact?	☐	☒

The proposed project would not directly or indirectly induce population growth indirectly necessitating more public services. No new or altered governmental facilities would be needed to provide public services as a result of the proposed project, and the proposed project would not result in increased demand for public services. No impact related to public services would occur.

Recreation

Question	Yes	No
Relevant to the project?	☒	☐

[15] While these activities are not construction and do not require a construction permit, some of the equipment generates noise levels similar to construction equipment (e.g., noise level of a chainsaw is ≤82 dBA L_{max} at 50 feet (USDOT, 2008) such that a comparison could be made and justification for ensuring work hours conform.

Potential for significant impact?	☐	☒

Treatments would occur within the Valley Memorial Park Cemetery and Funeral Home property adjacent to the Rush Creek Open Space Preserve and would not affect recreational facilities or nearby trails. The treatment area and roads in the immediate area may be closed for short durations during fuel reduction activities and pile burning for safety purposes. Much of the work area is located near fire roads and private roads. Signs would be posted at each end of herbicide applications areas and any intersecting trails notifying the public of the use of herbicides in recreational areas (HAZ-5). The proposed project would not directly or indirectly induce population growth that could increase the use of recreational facilities. Significant recreational impacts would not occur.

Transportation

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

A single crew of up to 10 workers would likely be working in the fuel reduction zone. An estimated 8 to 22 daily one-way vehicle trips would occur, which would not exceed the threshold of 110 trips per day[16].The VMT associated with implementation of the proposed project would not conflict with State CEQA Guidelines section 15064.3, subdivision (b). Pile burning could be conducted as a method of vegetative debris disposal. Pile burns would be performed away from roadways and would not be a hazard to passing motorists or recreationalists due to the small size of the burns and monitoring during the burn. No significant traffic impacts would occur.

Utilities and Service Systems

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

Biomass generated from vegetation removal activities may be processed using a chipper if pile burning or other biomass recovery and processing methods are not used. As the vegetation grows back and follow up maintenance is conducted in future years, additional vegetative materials would be chipped and trucked away. Materials could be trucked to Marin Resource Recovery Center, West Marin Compost, or Redwood Landfill, which have a permitted capacity of 5,140 tons per day, or other appropriate processing facility, and would be able to accept the chipped material (CalRecycle, 2022). No impact related to utilities and service systems would occur.

[16] The Office of Planning and Research identifies a screening threshold for a small land-use project as a project that generates or attracts fewer than 110 trips per day. Projects that generate fewer than this threshold may be assumed to cause a less-than-significant transportation impact (OPR, 2017). Although a vegetation treatment project is not a land use project, it is assumed that the screening threshold would still apply to the proposed project.

Wildfire

Question	Yes	No
Relevant to the project?	☒	☐
Potential for significant impact?	☐	☒

The fuel reduction zone is within the Local Responsibility Area (LRA) in a moderate fire hazard severity zone (CAL FIRE, 2007/2008). The purpose of the proposed project is to reduce fuel loads and fire-hazardous vegetation, which would reduce the spread and intensity of a wildfire, should one occur and to revegetate the area with ignition resistant vegetation. Fuel reduction crews would maintain fire suppression equipment (e.g., Pulaski axe, shovel, fire extinguisher) in work vehicles during activities that can generate sparks or heat (HAZ-2). The proposed project would not impair an adopted emergency response plan or evacuation plan. The proposed project does not involve installation or maintenance of any infrastructure that could exacerbate fire risk. The proposed project does not involve intense ground disturbing activities that could result in downslope or downstream flooding or landslides should a wildfire occur.

Pile burning would not exacerbate wildfire risk. Pile burning would occur in areas of lowest risk for fire spread. Piles would be relatively small in size and monitored by a qualified professional during the burn. Pile burning and curtain burning would be conducted by a qualified professional in accordance with the burn permit and standard industry practices including the California Forest Practice Rules, which would ensure that people and structures would not be exposed to significant risks. Impacts to people and structures from increased fire risk would not occur.

References

CAL FIRE. (2007/2008). Fire Hazard Severity Zones Maps.

CAL FIRE. (2018, May). California Forest Carbon Plan. *Managing Our Forest Landscapes in a Changing Climate*.

Cal-IPC. (2015). *Cal-IPC*. Retrieved from Plant Assessment Form - Eucalyptus globulus: https://www.cal-ipc.org/plants/paf/eucalyptus-globulus-plant-assessment-form/

Cal-IPC. (n.d.). *IPCW Plant Report - Eucalyptus Globulus*. Retrieved from https://www.cal-ipc.org/resources/library/publications/ipcw/report48/

CalRecycle. (2022). *SWIS Facility/Site Search*. Retrieved from https://www2.calrecycle.ca.gov/SolidWaste/Site/Search

Caltrans. (2022). *Scenic Highways*. Retrieved from California State Scenic Highways: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

CDFG. (2003). List of California Terrestrial Natural Communities.

CDFW. (2022, June). California Natural Diversity Database (CNDDB) Rarefind Program. Sacramento, CA: California Department of Fish and Wildlife.

City of Novato. (2020, October 27). General Plan 2035.

CNPS. (2022). Electronic Inventory of Rare and Endangered Vascular Plants of California, Database search for Marin County and surrounding quadrangles. C. Sacramento CA: CNPS.

Colwell, R. N. (1973). ERTS-1 imagery and high flight photographs as aids to fire hazard appraisal at NASA San Pablo Reservoir Test Site. *Symposium on significant results obtained from the Earth Resources Technology Satellite* (pp. 145-156). Unknown: Unknown.

DeBaker, C. (2022, August 3). Principal, Far Western. (P. E. Caitlin Gilleran, Interviewer)

Far Western. (2022, July 27). Desktop Review for NOV-23-05.

Gill, A. M., Groves, R. H., & Noble, I. R. (1981). Fire in tall open-forests (wet sclerophyll forests). In A. M. Gill, R. H. Groves, & I. R. Noble, *Fire and the Australian Biota* (pp. 339-366). Canberra City: ACT: The Australian Academy of Sciences.

Gill, M. A. (1977). Plant traits adaptive to fires in Mediterranean land ecosystems. In H. A. Mooney, & E. C. Conrad, *Proceedings of the symposium on the environmental consequences of fire and fuel management in Mediterranean ecosystems* (pp. 17-26). Washington DC: U.S. Department of Agriculture, Forest Service.

Hickman, J. (1993). The Jepson Manual Higher Plants of California. Berkeley: University of California Press.

Jackson, L., Hodson, A., Fhyrie, K., & Calegari, V. (2014). Habitat Restoration Practices for California Rangeland Riparian Corridors. UC Davis Department of Land, Air and Water Resources.

Lang, D., & McDonald, G. W. (2005, January 14). Maintaining Groundcover to Reduce Erosion and Sustain Production. NSW Department of Primary Industries.

Lange, R., & Reynolds, T. (1981). Halo effects in native vegetation. *T Roy Soc South Aust., 105*(4).

Nelson, K. M. (2016). Evaluating the Myth of Allelopathy in California Blue Gum Plantations. *Master's Thesis*. California Polytechnic State University.

O'Loughlin, C., & Watson, A. (1979). Root-Wood Strength Deterioration in Radiata Pine After Clearfelling. *Forest Research Institute*, 284-293.

OPR. (2017, November). Technical Advisory on Evaluating Transportation Impacts in CEQA.

Skolman, R. G., & Ledig, T. F. (1990). Eucalyptus globulus labill bluegum eucalyptus. In R. M. Burns, & B. H. Honkala, *Silvics of North America Vol. 2 Hardwoods Agricultural Handbook* (pp. 299-304). Washington DC: U.S. Department of Agriculture, Forest Service.

Stebbins, R. (2003). A field guide to western reptiles and amphibians. Third edition. New York, New York: Houghton Mifflin Company.

Sturdevant, J. T., Skalsky, R., Wienk, C. L., & Dolan, B. (2009). Experimental study of local fire conditions and effects on surface or near-surface archeological resources at National Park Service units – Midwest Region. *JFSP Research Projects Reports*.

SWRCB. (2022). *GeoTracker*. Retrieved from https://geotracker.waterboards.ca.gov/

Urbanski, S. (2014). Wildland fire emissions, carbon and climate: Emission factors.

USDA. (2014, March 26). *Piled Fuels Biomass and Emissions Calculator*. Retrieved from https://depts.washington.edu/nwfire/piles/index.php?

USDA. (2022). *Fuel and Fire Tools (FFT)*. Retrieved from https://www.fs.usda.gov/pnw/tools/fuel-and-fire-tools-fft

USDA. (2022, December 1). Gridded National Soil Survey Geographic (gNATSGO) Database for the Conterminous United States. Retrieved from https://nrcs.app.box.com/v/soils

USDA. (2022, December 1). Gridded National Soil Survey Geographic (gNATSGO) Database for the Conterminous United States.

USDA Forest Service. (2002). *Fire Effects Information System (FEIS)*. Retrieved from Quercus agrifolia: https://www.fs.fed.us/database/feis/plants/tree/queagr/all.html

USDOT. (2008, December 8). Federal Highway Administration's Roadway Construction Noise Model.

USFWS. (2022, June). Final Critical Habitat for Threatened and Endangered Species online mapper.

USFWS. (2022, May 5). National Wetlands Inventory website. Washington, D.C.

Watson, K. (2000). The effect of Eucalyptus and oak leaf extracts on California native plants. *Master's thesis*. UC Berkeley College of Natural Resources.

Wolf, K. M., & DiTomaso , J. (2016). Management of blue gum eucalyptus in California requires region-specific consideration. *California Agriculture*.

Xerces Society. (2016). *State of the Monarch Butterfly Overwintering Sites in California.* Portland, Oregon: Xerces Society for Invertebrate Conservation.

Disclaimer

The occurrences shown on the special-status species maps represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within the project area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special-status species occur in an area.