Notice of Exemption 21-2025-136

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)**:**
Marin County Fire Department
1600 Los Gamos Dr., Suite 300
San Rafael, CA 94903

FILED
08/26/2025
SHELLY SCOTT
MARIN COUNTY CLERK
By A.Oxlaj Arevalo **Deputy**

Project Title: West Marin Zone Blueberry Ridge Fuel Reduction Project

Project Applicant: Marin County Fire Department

Project Location – Specific: Vegetation thinning and removal to expand and maintain a fuel reduction zone along the perimeter of the community of Woodacre.

Project Location – City:
Woodacre

Project Location – County:
Marin County

Description of Nature, Purpose and Beneficiaries of Project:
The purpose of the proposed project is to expand and maintain a fuel reduction zone along the perimeter of the community of Woodacre. The proposed project would improve vegetation clearance along the ridgetop fire road adjacent to the community of Woodacre to provide better access for first responders and emergency vehicles and extend evacuation times for the community, and slow fire intensity. The proposed project would also improve access by reducing heat, flame, ember, and smoke impingement on the fire road for emergency responders in the event of an approaching wildfire. Treatments in the fuel reduction zone would improve forest stand spacing and reduce the presence of non-native, invasive species.

Name of Public Agency Approving Project: Marin County Fire Department

Name of Person or Agency Carrying Out Project: Marin County Fire Department

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. 15301. Existing Facilities for vegetation along roadways.
- ☐ 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 Class 1, for Existing

POSTED 08/26/2025 **TO** 09/25/2025

Facilities. 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. A Class 1 exempt project consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. The proposed project would involve creation of a fuel reduction zone via vegetation thinning and removal within 100 feet on either side of the edge of the fire road. The scope of the proposed project is consistent with a minor alteration to the condition of the vegetation in the fuel reduction zone along the fire road and maintenance of the existing fire road shown in Figure 1.

Additionally, no healthy, mature, scenic trees would be removed; no work would take place within sensitive habitat, including wetlands or waterways; and no 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:**
Jordan Reeser	415-473-6245

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☐

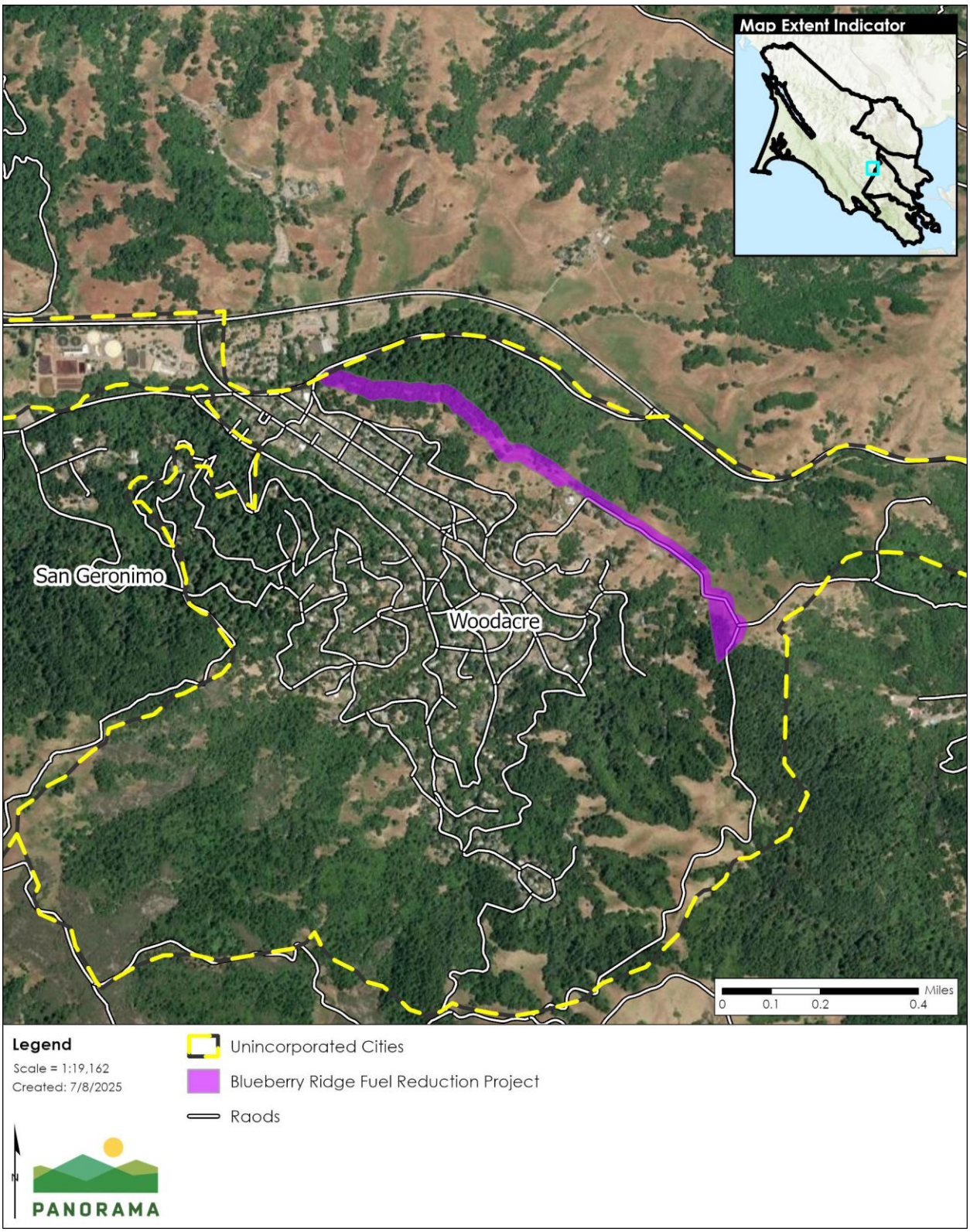
Signature: Jordan Reeser Date: 8/25/25 Title: Battalion Chief

☑ 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



MARIN WILDFIRE PREVENTION AUTHORITY

California Environmental Quality Act Categorical Exemption Determination Memorandum

Date: August 21, 2025

Project: West Marin Zone Blueberry Ridge Fuel Reduction Project

Categorical Exemption Summary

The Marin County Fire Department (MCFD) as the lead agency under California Environmental Quality Act (CEQA) has determined that the West Marin Zone Blueberry Ridge Fuel Reduction Project (proposed project) is categorically exempt under CEQA Guidelines Section 15304, Class 4 for Minor Alterations to Land and Class 1, for Existing Facilities. 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. A Class 1 exempt project consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. The Marin Wildfire Prevention Authority (Marin Wildfire), as the responsible agency under CEQA, concurs with the MCFD's determination that the proposed project is exempt under CEQA. The proposed project would involve creation of a fuel reduction zone via vegetation thinning and removal within 100 feet on either side of the edge of the fire road. The scope of the proposed project is consistent with a minor alteration to the condition of the vegetation in the fuel reduction zone along the fire road and maintenance of the existing fire road shown in Figure 1.

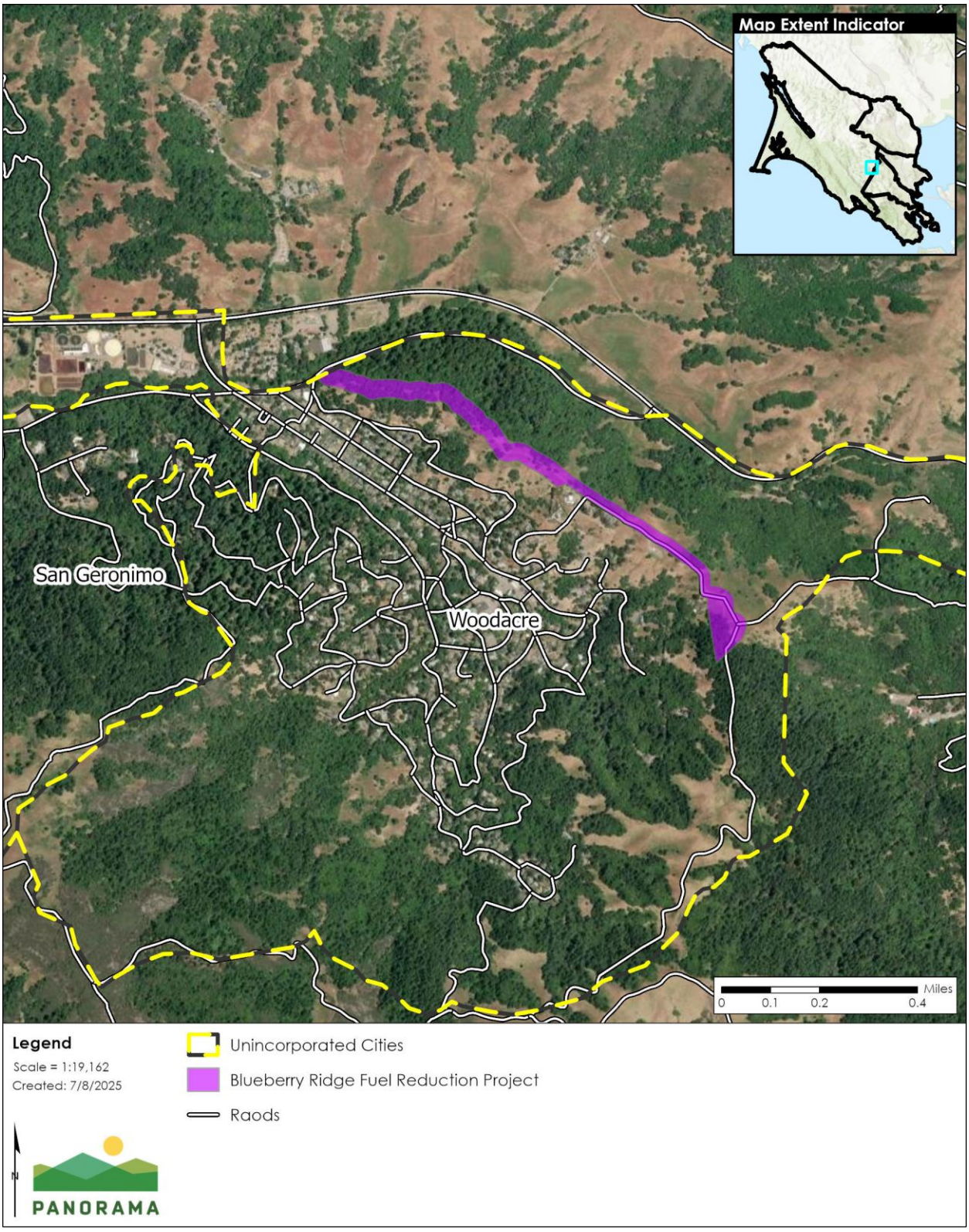
The following analysis demonstrates the proposed project would not result in adverse environmental effects, supporting MCFD's determination that the proposed activities are categorically exempt under CEQA. The proposed project would be conducted in compliance with applicable federal, State, and local 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.

Background

Marin County voters passed Measure C in 2020, which established a 17-member Joint Powers Authority, Marin Wildfire, 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. Marin Wildfire 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 Marin Wildfire. Core Projects include those projects that focus on wildfire detection, notification, and evacuation; vegetation management and fire hazard reduction; grants management; and public education.

Figure 1 Proposed Project



West Marin Zone Blueberry Ridge Fuel Reduction Project - Marin Wildfire Prevention Authority

Purpose and Need

The purpose of the proposed project is to expand and maintain a fuel reduction zone along the perimeter of the community of Woodacre. The proposed project would improve vegetation clearance along the ridgetop fire road adjacent to the community of Woodacre to provide better access for first responders and emergency vehicles and extend evacuation times for the community, and slow fire intensity. The proposed project would also improve access by reducing heat, flame, ember, and smoke impingement on the fire road for emergency responders in the event of an approaching wildfire. Treatments in the fuel reduction zone would improve forest stand spacing and reduce the presence of non-native, invasive species.

Project Description

Treatment Area

The proposed project activities would be completed along the approximately 1.1-mile-long fire road between San Geronimo Drive and the community of Woodacre, as shown in Figure 1. The proposed project would treat up to 25 acres of the fire road adjacent to 16 private parcels and 8 public parcels owned and managed by the Marin Municipal Water District. Treatment activities would typically involve vegetation removal and mowing within the fuel reduction zone. Fire-hazardous vegetation comprised of dead and downed trees and branches would be targeted. Hazardous trees (e.g., dead or dying trees) identified by an arborist or qualified fire professional may also be removed within the fuel reduction zone. No healthy, mature, scenic trees would be removed under this proposed project. Fuel reduction zone treatments would avoid wetted streams and wetlands within the proposed project area.

Oak and Mixed Woodland

Woodland communities comprise the greatest proportion of the project site. Treatment within woodland communities (e.g., oak, California bay) would be limited to manual and mechanical thinning using a hand crew. Fuel reduction work within woodland treatment areas would involve pruning tree branches 8 to 10 feet above ground (not to exceed 1/3 of the tree's height), removal of dead/downed branches, and the removal of small diameter (less than 8 inches diameter at breast height [DBH]) live trees, where appropriate, to achieve horizontal spacing. Smaller native trees, such as toyon, that are not considered fire hazardous, would not be removed. Understory ladder fuels including non-native, invasive Scotch broom and French broom, coyote brush shrubs, and shrub-like understory tree saplings would be removed or thinned, preferably by pulling. Non-native, invasive species may be treated with herbicide, if permitted per the private landowner. Hazardous trees (e.g., dead or dying trees), dead standing trees, and encroaching non-native trees would be removed where deemed appropriate in coordination with an arborist or qualified fire professional. In general, one snag would be retained per acre for habitat if the retained snag would not be a hazard. A hazard tree generally poses a risk of failure or fracture with the potential to cause injury to people or damage to property.

Redwood Forest

Treatment within redwood communities would be conducted by a hand crew using manual and mechanical tools. Dead and downed branches would be removed. Smaller native trees, such as toyon or bay, that are growing in redwood communities would typically be retained unless the densities pose a fire hazard risk, but would be pruned. Native redwood and other trees would be

pruned to 8 to 10 feet above ground (not to exceed 1/3 of the tree's height). Dead standing trees and hazard trees would be removed where deemed appropriate by an arborist or qualified fire professional, retaining one snag an acre for habitat, if not a hazard.

Chaparral

The proposed project includes 0.7 acre of treatment in chaparral, specifically *Baccharis pilularis* Association, which includes coyote brush (*Baccharis pilularis*), coffeeberry (*Frangula californica*), and coast silktassel (*Garrya elliptica*) as the dominant species[1]. The chaparral community in the project site is intermixed with non-native grassland at the edge of redwood and California bay forests. The chaparral communities are located on private lands.

Treatment within non-native annual grassland and chapparal communities would be limited to handheld manual and mechanical removal of grasses, dead woody vegetation, and removal of low-lying shrubs and brush to achieve horizontal spacing and reduce overall fuel loading. Masticators may be used within the fuel reduction zone to treat dense pockets of poison oak and coyote brush. Treatment activities in chaparral would promote heterogeneity, resiliency, and health in the native shrub stand by removing encroaching invasive and non-native vegetative types, such as French broom (*Genista monspessulana*), as well as dead individual shrubs. Native stands of brush would be maintained but thinned to a spacing of 5 to 10 feet depending upon the site conditions. Non-native plant species such as broom would be removed. Typically, non-native species would be pulled by hand for removal, although larger individuals may be cut and treated with herbicide to prevent resprouting, if permitted per private landowners.

Treatment Method

Proposed project treatments would include handheld manual and mechanical fuel reduction using chainsaws, string trimmers, pull saws, other similar handheld tools, in addition to a masticator in targeted locations and chipper.

Herbicides, if used, would be applied in a targeted manner. The vegetation would be cut with tools and then herbicide painted on using spot treatments such as the cut-stump or painted application methods, which have been found to have the best success rate for control of certain species, including broom (Oneto et al. 2010). The proposed project would use Garlon 4 Ultra (i.e., herbicide with the active ingredient triclopyr) and would be painted on the stumps in a targeted manner immediately after hazardous tree removal and as a follow up treatment, as needed, to kill or prevent regrowth.

Should chemical treatments be applied as part of initial or follow-up treatment, herbicide application would be implemented according to all applicable regulations. Herbicides would not be applied within 24 hours of a known rain event and signs would be posted at the project site within or adjacent to public recreation areas, residential areas, schools, or any other public

[1] The California Vegetation Treatment Program (CalVTP) Programmatic Environmental Impact report (PEIR) is currently subject to pending CEQA litigation filed in San Diego Superior Court in early 2020 by two environmental organizations (Board of Forestry and Fire Protection n.d.). The court's decision only applies to projects being carried out under the CalVTP and relying on the PEIR. The ruling does not prohibit or limit all fire fuel reduction projects that may be carried out in sage scrub or chaparral.

areas at least 1 day prior to application and would remain posted on-site at least 1 day following application (HAZ-4).

Biomass Processing

A trailer-mounted chipper with the capacity to accept up to 15-inch diameter vegetation and a chipper truck would be at all work areas. A trailer-mounted chipper or chipper truck would be operated from the fire road. An estimated 20 to 25 cubic yards of vegetative debris could be disposed of each workday. Vegetative material would be fed into the chipper and the chipped material may be broadcast at work areas, where appropriate, or hauled away for disposal. Vegetation left at and spread on work areas would be chipped to less than 3 inches to minimize risk of fuel buildup and ignition. Disposal sites include West Marin Compost and Marin Resource Recovery Center.

Cut material may be pile burned depending upon the conditions of the work site. Suitable pile burning treatment sites are typically flat or have gentle slopes and have open areas away from tree canopies and power lines. Locations selected for pile burning would be away from waterways. Piles would generally be 4 feet in diameter and 4 feet in height but may vary. Multiple piles may be burned on a single day. Pile burning would be conducted in compliance with Bay Area Air District (BAAD) Regulation 5 for open burning and burn day restrictions.

Workers

Contractors and MCFD crews would conduct the vegetation removal and chipping within the fuel reduction zone. A single contractor crew would generally consist of 3 to 6 workers. Two to three crews may operate in the fuel reduction zone.

Site Access

Treatment areas would be accessed from the fire road. Vehicles and equipment would be staged at the contractor's yard daily.

Schedule and Duration

Project activities would be conducted on weekdays from 8 am to 5 pm, starting in Fall 2025. Maintenance consisting of removal of newly dead and downed vegetation as well as trimming of areas with fine fuels (e.g., grasses) may occur annually based on inspections. Maintenance for the fuel reduction zone would occur approximately 3 to 5 years for forested and shrub areas. Treatment of invasive species, such as Scotch and French broom, would be conducted as needed.

Project Design and Implementation Features

Marin Wildfire 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[2]

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 FR Parts 44738-44739 and Appendix A to 36 CFR Part 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[3]

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 Marin Wildfire 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).

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

---

[2] 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.

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

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[3]

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. Monitoring may also be identified by the qualified archaeologist as an appropriate measure to avoid damage or destruction of previously documented or potential resources (e.g., areas with a high sensitivity for buried resources) if conducting activities in the vicinity. 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. Graton Rancheria will be notified of the opportunity to attend any surveys or monitoring, if there is the known or potential presence for precontact resources. 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 (Cal. Gov. Code § 6254(r), 6254.10; PRC § 5097.98(c); Cal. Code Regs. § 15120(d); 40 CFR § 1516.9; PRC § 21082.3 (c)(1)). Records searches, field survey results, and monitoring results will be shared with Graton Rancheria, as appropriate. Resources found during the records search, tribal outreach, survey, and/or monitoring 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 Marin Wildfire 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[4,5]

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).

ES-1 Environmental Surveys for Rare Plants

Within areas where rare and special-status plants have a moderate to high potential to occur, based on desktop data of habitat types, known site-specific information, and the professional judgment of qualified biologists, surveys will be conducted prior to any activity that has the potential to damage perennial plants or is proposed to occur during the flowering season for the specific annual plant species that has the potential to damage the flowering body and seeds of these plant species. Activities that have the potential to damage the flowering body may include but may not be limited to mowing, weed whacking, off-road vehicle and heavy equipment use, discing, and prescribed burning.

Surveys for rare plants will occur for these species across the entire project footprint. Surveys will occur during the blooming period, if feasible, and will occur prior to work for the specified special-status plant. If blooming period surveys are not feasible and the sensitive plant in question can be keyed to genus outside of the blooming period, surveys will be conducted for all members of the genus. Individuals will be flagged for avoidance or modified methods. Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat and removal after completion. For physical avoidance, a buffer may be implemented as determined necessary by the biologist. Sensitive species damage or loss avoidance may include implementation of appropriate species-specific no-activity buffers around sensitive resources. Temporary fencing will also be implemented, as and where determined necessary based on the species tolerance, if grazing is prescribed in the area of flagged individuals for avoidance or modified methods (WILD-1).

---

[4] 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.

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

IP-1 Clean Equipment[5,6]

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[5,6]

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.

IP-3 Treat Invasive Plants Prior to Seeding[5,6]

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[5,6]

When removing vegetation, focus first on removing invasive and highly flammable species, and dead or diseased vegetation. Retain beneficial, low-fire risk, healthy native plant species whenever possible, except where the historic disturbance regime for the vegetation community has not been maintained or the vegetation poses a hazard to the public.

GEO-1 Erosion and Soils Loss Stabilization Measures[3]

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:

---

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

- 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 such as 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[2,3,5]

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[2,5]

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[2,4,5]

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[4]

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[5]

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[5]

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[7] and II[8] watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ.
- No herbicides will be applied through any method 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 other than painted or sponged on applications to invasive and/or non-native species cut stumps.
- 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[5,9]

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

---

[7] 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.

[8] 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.

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

- 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

NSO-1 Northern Spotted Owl Nesting Season Avoidance[2]

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[2]

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 Marin Wildfire 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[2]

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[2,6]

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[2,5,6,10]

Whenever possible, schedule work outside of the bird nesting season, which is generally from February 1 through July 31st [11] Not all species nest between the regulatory season, and active nests that are encountered year-round are protected.

NB-2 Nesting Bird Surveys[2,5,6]

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 Marin Wildfire 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

---

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

[11] 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 and extend to August 15 or beyond.

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.

NB-3 Nesting Birds: Active Nest Avoidance[2,5,6,8]

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[2,5,6,8]

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[4,5]

If vegetation management activities would (1) occur in trees with potential for roosting bat species (e.g., trees with a diameter at breast height of 10 inches or greater), (2) would include removal of trees where a bat could be roosting and (3) the work would commence between March 1 and July 31[12], 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 maternity roosting bats will be disturbed during work. This survey can be conducted concurrent with other surveys for other

[12] In the coastal zone, the bat roosting season for Marin Wildfire-funded core projects is March 1 through April 31; September 1 through October 15.

sensitive species. Potentially suitable bat roosting habitat 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[4]

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[4]

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[4]

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[5,6]

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.

TR-1 Emergency Access to Project Areas[2,3]

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[4]

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 areas, do not occur within the fuel reduction zone. For special-status species with a moderate or high potential to occupy the site, a biologist would survey the fuel reduction zone ahead of treatment depending upon the type of treatment and time of year (ES-1) and determine whether avoidance or modification of the treatment is necessary to ensure suitable habitat loss would not occur. Due to the location, scope, and design of the proposed project, the proposed project would not adversely affect unique sensitive habitats for special-status species as the work would not substantially affect species diversity and could be beneficial if invasive species removal is needed, therefore, exception (a) does not apply.

(b) Cumulative Impact:

Other fuel reduction treatments are occurring in the West Marin 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 fuel reduction zone would be limited to the types of activities previously described, which would be performed periodically to maintain defensible space between structures and open space. The visual character of the proposed project work areas would be modified each time vegetation treatments are implemented to maintain emergency vehicle accessibility and fuel reduction zones as vegetation regrows, due to reduction in vegetation cover and type (e.g., broom removal), but the existing character would remain. The design and implementation of this proposed project (e.g., PDIFs ES-1, CUL-1) ensures that significant effects on environmental resources are avoided over successive years of maintenance. 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 fuel reduction 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., ES-1, NB-1, RB-1, NSO-1). The proposed project would modify vegetation, but the natural character would remain, and the aesthetic change would not be substantial. 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 work areas such that fuel reduction treatments could be visible; therefore, exception (d) does not apply (Caltrans 2024).

(e) Hazardous Waste Sites:

Per the current government database of hazardous waste sites at the time of this filing, there are no hazardous waste sites located within or adjacent to the fuel reduction zone (DTSC 2025; SWRCB 2025). 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 handheld manual and mechanical vegetation trimming and removal and pile burning. No intense ground-disturbing activities would occur. While some ground-based mechanical equipment use and hand pulling of invasive plants could occur, ground disturbance from these activities would be 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 identified culturally sensitive areas within the fuel reduction zone that require further investigation to determine whether avoidance or modifying the prescription is needed to avoid impacts(CUL-3) (Far Western 2025). Should a previously unidentified cultural resource be discovered, work would halt in the area and the resource 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 archaeological 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 fuel reduction zone is characterized as primarily forested and residential areas. Vegetation communities vary but largely consist of densely forested mountain areas as well as grass lowlands and hills, Viewers in the vicinity of the fuel reduction zone would primarily be homeowners and recreationalists that are adjacent to the fuel reduction zone.

Equipment and trucks performing the work would be temporarily visible along or staged near the fuel reduction zone. The vegetation thinning activities would be in one area for a short period of time (a few hours to a day) and the work would be performed in a limited area within the fuel reduction zone at any given time.

Minor changes to the vegetation patterns and form would occur from manual and mechanical removal of small or hazard trees and shrubs, as well as invasive species removal. The vegetative material would be chipped and hauled away from the work area, broadcast at the treatment area, or pile burned. Viewers in the immediate vicinity may notice changes in the density and type of the vegetation within the fuel reduction zone.. These methods of vegetation treatments currently occur in the Western Marin Zone as well as throughout broader Marin County to create defensible space and reduce hazardous fuel loads. This type of work and vegetation management is typical of the area and a characteristic part of the existing environment. The proposed project would not degrade residential, recreationalist, or motorist views from nearby residences, roads, or trails because the visual change would be minimal and is typical in the area, and would primarily occur within the fuel reduction zone. The natural characteristics of the area around the fuel reduction zone would remain. Visual degradation as seen from State or locally designated scenic roads or vistas, including the Marin County ridge and upland greenbelt areas, would not occur.

Pile burning, if conducted, would result in visual impacts 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 in open areas away from any dense vegetation or forests. While piles may be visible to the public, pile burning would be temporary. Pile burns may result in smoke plumes which 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 fuel reduction activities would not convert designated farmland to non-agricultural uses. Project activities would primarily involve thinning and removal of small fire-hazardous trees, shrubs, and underbrush. Healthy, mature, native trees would not be removed and as such 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, ground-based equipment, and handheld equipment used during fuel reduction activities would emit diesel particulate matter and criteria air pollutants. In a given day, it is assumed that worker trucks, chainsaw, mechanical hand tools and a chipper would operate for a few hours per crew and up to one off-haul truck would travel to a green waste disposal center a day. No tilling or grading activities that could generate fugitive dust emissions would occur.

Pile burning may be used to dispose of vegetative debris instead of chipping 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 BAAD's Regulation 5. The piles of debris burned in any one year and any ongoing treatment activities would not exceed the BAAD significance thresholds (USDA 2014; Urbanski 2014; USFWS 2025). 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 zone was conducted (CDFW 2025; CNPS 2025). 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 and wetland sensitive habitats occur near the fuel reduction zone but none are within the proposed treatment area. Habitat for sensitive natural communities, including oak and mixed woodland, redwood forest, and chaparral, occurs in the fuel reduction zone. No serpentine soils

or serpentine-associated communities are documented within the fuel reduction zone. No critical habitat for sensitive plants occurs within the vicinity of the work area. Several special-status plant species have a moderate potential to occur in the fuel reduction zone (refer to Table 1 for information).

Treatment within the fuel reduction zone would be limited to vegetation thinning and the removal of fire-hazardous and dead vegetation, which would not alter the vegetation communities leading to type conversion or loss and would make the communities more resilient to threat of type conversion after wildfire. Furthermore, PDIFs IP-1 through IP-4 are incorporated into the proposed project, which involve preventing the spread of invasive species and prioritizing removal of invasive and highly flammable species, as well as dead and diseased vegetation, to minimize the potential for type conversion in potentially sensitive vegetation communities, including chaparral and oak woodlands.

Workers would receive training from a qualified professional prior to beginning the fuel reduction treatments where sensitive biological resources could occur in the work areas, which would include identification of special-status plant species and avoidance or, as appropriate, training for species-specific protocols for work, such as trimming methods (ET-1). The training for this proposed project would involve identification of all species with a moderate or high potential to occur, including, but not limited to Mt. Tamalpais manzanita, Tamalpais Lessingia, Marin manzanita, and Mt. Tamalpais bristly jewelflower for avoidance if encountered in the fuel reduction zone. The vegetation treatments would leave native species in place (IP-4). Workers would clean equipment and handle vegetation to avoid spreading invasive species and plant pathogens (IP-1, IP-2, IP-3). Pile burning may be conducted as a vegetation disposal method. Material would not be piled and burned in sensitive habitats (SH-3). Pile burns would affect a relatively small area within the fuel reduction zone.

The blooming season for sensitive plants with a moderate to occur within the fuel reduction zone ranges from January through October. Initial treatment is anticipated to begin in Fall 2025 and fuel reduction treatments may be performed within the blooming season for some sensitive species. If activities that could damage the flowering plant species that have a moderate potential to occur would occur during the blooming season, and if a review and professional judgement dictates, surveys would be conducted prior to work (ES-1). Any individuals found during the pre-treatment surveys would be flagged for avoidance or modified methods of treatment. Workers would receive training from a qualified professional prior to beginning vegetation treatments in areas where sensitive biological resources could occur (ET-1).

Herbicides, if used, would be applied in a targeted manner for stump treatment to prevent resprouting. The proposed project would use Garlon 4 Ultra (i.e., herbicide with the active ingredient triclopyr). Particles or vapors from herbicide drift may impact non-target special-status plant species in the immediate vicinity of the target species. Triclopyr is toxic to non-target plant species, and small quantities of herbicide drift can result in dead vegetation (US EPA 1998; Minnesota Department of Agriculture n.d.). If there is a potential that herbicide application could damage the flowering body or seed dispersal of plant species with a moderate potential to occur in areas with suitable habitat and during the blooming season, surveys would be conducted prior to treatment (ES-1). Herbicides would not be applied within a 50-foot buffer of any ESA or California ESA-listed species (HYD-1 and HAZ-5). As noted above, any individuals found during the pre-treatment surveys would be flagged for avoidance or modified methods such as use of an alternative herbicide or different application method (e.g., paint on). In accordance with ES-1, biologists would determine a buffer around sensitive species based on the type of herbicide and

application method utilized. All sensitive plant species have a low to no potential to be impacted by proposed project activities as shown in Table 1.

Spill prevention and response measures would be implemented that would ensure that herbicides are properly stored on-site and that any accidental releases of hazardous materials would be properly controlled and quickly cleaned up so as to not harm sensitive plant species (HAZ-1). Measures would be implemented to minimize herbicide drift including applying herbicides during low-wind weather conditions, and applying herbicides within 24 inches of vegetation (HAZ-4). Significant impacts on native vegetation communities and special-status plants species would not occur.

Special-Status Wildlife

The olive-sided flycatcher and northern spotted owl have a moderate potential to occur within the fuel reduction zone (refer to Table 1 for information). 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 the potential to nest or forage within the fuel reduction zone and are protected under the Migratory Bird Treaty Act and Sections 3503 and 3503.5 of the California State Code. Initial 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 (per PDIFs 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).

Studies have found that forest herbicides (e.g., glyphosate, imazapyr) used according to label directions are nontoxic and do not bioaccumulate or bioconcentrate in birds (Clark et al. 2009). Due to the discrete application of herbicides by hand in a targeted manner on invasive plants, the proposed project would pose a low risk to bats and nesting birds. Pretreatment of vegetation as part of the proposed and previously approved projects, if needed prior to herbicide application, would occur from February to August would involve implementation of appropriate nesting bird and/or maternity roosting bat surveys (NSO-1, NSO-2, NB-1, NB-2, NB-3, NB-4, RB-1, RB-2, RB-3, RB-4) and nest or roost avoided.

Critical habitat for northern spotted owl is adjacent to the project area. Several activity centers and nests were detected within 0.25 mile of the fuel reduction zone (CNDDB 2025). As such, there is a moderate potential for northern spotted owls to occur within the fuel reduction zone. Vegetation treatment and removal would target invasive, non-native, and fire-hazardous vegetation and accumulative dead biomass within the treatment area. Small trees, 8 inches DBH and smaller, would be removed as needed from the understory and trees smaller than 10 inches DBH would be removed in areas with fire-hazardous invasive trees. This vegetation would grow back and maintenance treatments would be performed as needed. Northern spotted owls typically prefer dense canopy closure of mature and old-growth trees with logs, standing snags, and live trees with broken tops. The owls also require open space in the understory or less dense habitats to allow flight under the canopy to forage (Gutiérrez et al. 2020). Most of the Marin County owls are known to use younger forests than those further north in California (Marin Municipal Water District 2019). The proposed project would thin vegetation in the understory and reduce the risk of high intensity fire that could permanently damage established nest sites. The proposed project may also improve foraging habitat for northern spotted owl by

reducing understory density and therefore permitting foraging by owls in flight. Impacts to prey density should not be affected as vegetation immediately surrounding woodrat nests would also be left and only a subset of available habitat to woodrats would be treated (NSO-4). Vegetation treatment activities would occur outside of the northern spotted owl nesting season to the extent possible (NSO-1). If work occurs during the nesting season, surveys would be conducted to determine if a breeding pair are located within 0.25 mile of the work area, and noise-generating treatment activities would not occur before July 31 if an active nest was present, unless the young have fledged (NSO-2). If any large trees 10 inches DBH or greater are identified for removal based on forestry practices, a qualified northern spotted owl biologist would be consulted (NSO-3). Given the relatively low intensity of the vegetation thinning activities and that treatment activities are retreating and expanding an existing fuel reduction zone, the work would not be considered major habitat alteration for northern spotted owls.

Herbicide application would typically occur within discrete, targeted areas within the fuel reduction zone. Ecological risk assessments have found that use of forest herbicides (e.g., glyphosate, imazapyr) used according to label directions are low risk on small mammals (e.g., woodrats) (Clark et al. 2009). Studies have also found that glyphosate, imazapyr, and triclopyr have low to no risk to birds of prey that consume contaminated prey or from an accidental spill (BLM 2007). As discussed above, forest herbicides do not bioaccumulate or bioconcentrate in birds when used in accordance with label instructions (Clark et al. 2009).

Piles for burning would be moved prior to burning to ensure wildlife could relocate, or a qualified biologist would inspect the piles prior to burning. If the piles are unable to be re-piled or inspected, the piles would be lit from one side and allowed to burn slowly to the other side of the pile to allow any wildlife time to vacate the pile (HAZ-3). Significant impacts on special-status wildlife species would not occur.

Wetlands

Streams or wetlands occur near the fuel reduction zone but are not located within the treatment areas, as shown in Figure 4 (USFWS 2025). Streams would be avoided by project activities (SH-1). Significant impacts on wetlands would not occur.

Figures omitted to protect special-status wildlife and plant species

Figure 4 Wetlands and Waterways

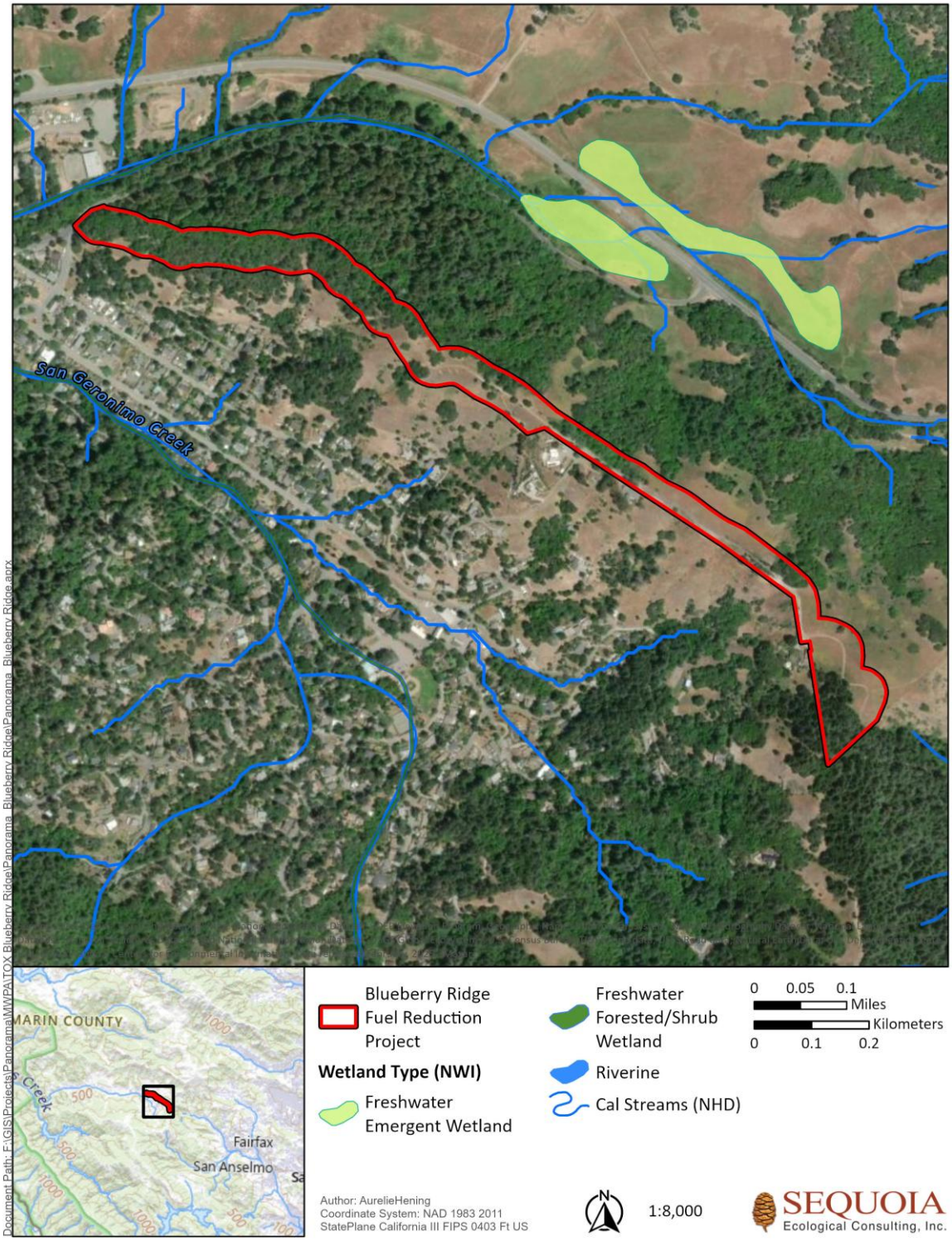


Table 1 Special-Status Species with Potential to Occur in the Project Vicinity

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Sensitive Plants					
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	FE, CRPR 1B.1	Marshes and swamps (freshwater), Riparian scrub	None; suitable habitat unlikely to occur, no occurrences recorded within 3 miles of the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Amorpha californica var. napensis	Napa false indigo	CRPR 1B.2	Wetland, riparian woodland	Low; suitable habitat may occur but riparian woodland is not present within the fuel reduction zone. Nearest documented occurrences are 1.5 miles away near Cascade Canyon Ridge and 1.9 miles southeast near Toyon Fire Road in Blue Ridge.	Low; species will be included in environmental training for avoidance (ET-1).
Amsinckia lunaris	bent-flowered fiddleneck	CNPS 1B.2	Grassland, serpentine, gravelly slopes	Low; suitable habitat is present, nearest documented occurrence is 0.74 mile south of the fuel reduction zone along Edgewood trail.	Low; species will be included in environmental training for avoidance (ET-1).
Arctostaphylos montana ssp. montana	Mt. Tamalpais manzanita	CRPR 1B.3	Chaparral, valley and foothill grassland; Serpentine slopes in chaparral and grassland	Moderate; suitable habitat occurs within the fuel reduction zone. Nearest occurrence is 1 mile south of fuel reduction zone on serpentine soils in White Hills Open Space. More than 10 occurrences within 1 mile in White Hills open space preserve	Low; manzanitas will be included in environmental training for avoidance (ET-1); if work that could result in mortality of individuals occurs, surveys will be conducted and if encountered, the species and buffer will be flagged for avoidance (ES-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				and Gary Giacomini open space preserve.	
Arctostaphylos virgata	Marin manzanita	CNPS 1B.2	Closed-cone pine forest, redwood forest, mixed evergreen forest, chaparral	Moderate; suitable habitat occurs. Nearest occurrence is 1 mile west of fuel reduction zone in Gary Giacomini open space preserve.	Low; manzanitas will be included in environmental training for avoidance (ET-1); if work that could result in mortality of individuals occurs, surveys will be conducted and if encountered, the species and buffer will be flagged for avoidance (ES-1).
Castilleja affinis var. neglecta	Tiburon paintbrush	FE, ST, CRPR 1B.2	Valley and foothill grassland (serpentinite)	None; suitable habitat is unlikely to occur. No occurrences recorded within or near the fuel reduction zone (CNDDB 2025). Nearest occurrence 9 miles southeast on Ring Mountain.	None; work will not occur in suitable habitat and species is unlikely to occur.
Ceanothus masonii	Mason's ceanothus	SR, CRPR 1B.2	Chaparral (openings, rocky, serpentinite)	None; nearest occurrence located 2.96 miles south of fuel reduction zone near Liberty Gulch off of Bolinas-Fairfax Road.	None; species is unlikely to occur.
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	None; suitable habitat does not occur. Species has not been observed in Marin County since 1966.	None; work will not occur in suitable habitat and species is unlikely to occur.
Chorizanthe valida	Sonoma spineflower	FE, CE, CNPS 1B.1	Coastal prairie, sand	None; suitable habitat does not occur, and no occurrences recorded within or near the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Cirsium hydrophilum var. vaseyi	Mt. Tamalpais thistle	CNPS 1B.2	Serpentine seeps	None; suitable habitat unlikely to occur, no occurrences recorded within or near the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Delphinium bakeri	Baker's larkspur	FE, SE, CRPR 1B.1	Broad-leafed upland forest, coastal scrub, valley and foothill grassland	None; suitable habitat may occur, though there are no known occurrences or observations within 3 miles of the fuel reduction zone (CNDDB 2025). Single extant population near Soulajule Reservoir on Marshall-Petaluma Road, greater than 20 miles from the fuel reduction zone.	None; species is unlikely to occur.
Delphinium luteum	golden larkspur	FE, SR, CRPR 1B.2	Chaparral, coastal prairie, coastal scrub	None; species is restricted to one extant population along Shoreline Highway near Tomales Petaluma Road. No known occurrences within 3 miles of the fuel reduction zone.	None; species is unlikely to occur.
Eriogonum luteolum var. caninum	Tiburon buckwheat	CRPR 1B.2	Chaparral, coastal prairie, valley grassland, serpentine	Low; suitable habitat may be present. Nearest occurrence 0.42 mile south of fuel reduction zone on Carson Road near a water tank.	Low; species will be included in environmental training for avoidance (ET-1).
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	CNPS 1B.2	Northern coastal scrub, valley grassland	Low; suitable habitat may be present. More than 10occurrences within 1 mile in Gary Giacomini open space preserve, White Hills Preserve,	Low; species will be included in environmental training for avoidance (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				French Ranch Preserve, and Roy's Redwoods Preserve.	
Hesperolinon congestum	Marin western flax	FT, ST, CRPR 1B.1	Serpentine soils; primarily serpentine bunch grass, chaparral or other low elevation grasslands	Low; suitable habitat may be present. Nearest occurrence is located north of Woodacre, however the exact location is obscured. More than 5 observations 3 miles south near Alpine Lake.	Low; species will be included in environmental training for avoidance (ET-1).
Holocarpha macradenia	Santa Cruz Tarplant	FT, SE, CRPR 1B.1	Coastal prairie along central coast, grassy areas, clay soil	None; suitable habitat unlikely to occur. No occurrences recorded within or near the fuel reduction zone (CNDDB 2025). Nearest occurrences located 3.3 miles southwest near Kent Lake.	None; species is unlikely to occur.
Horkelia tenuiloba	thin-lobed horkelia	CRPR 1B.2	Chaparral; open areas on coastal hills and mountains	None; suitable habitat unlikely to occur. Nearest occurrence located 3 miles southwest near Alpine Lake from 1990.	None; species is unlikely to occur.
Lasthenia conjugens	Contra Costa goldfields	CRPR 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools	None; suitable habitat unlikely to occur. The only known occurrence of this species in Marin County is located 25 miles northwest in Valley Ford.	None; species is unlikely to occur.
Lessingia micradenia var. micradenia	Tamalpais lessingia	CNPS 1B.2	Thin, gravelly soil of serpentine outcrops, roadcuts	Moderate; suitable habitat may occur. Several occurrences within 1 mile of the southeastern end of fuel reduction zone in White Hills open space preserve.	Low; species will be included in environmental training for avoidance (ET-1); if work that could damage the flowering body occurs during the blooming season, surveys will be conducted

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
					and if encountered, the species and buffer will be flagged for avoidance (ES-1).
Lilaeopsis masonii	Mason's lilaeopsis	CR, CRPR 1B.1	Freshwater and brackish wetlands	None; suitable habitat unlikely to occur. No occurrences recorded within 3 miles of the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Lilium pardalinum ssp. pitkinense	Pitkin Marsh lily	FE, CE, CNPS 1B.1	Cismontane woodland, marshes and swamps (freshwater), meadows and seeps	None; suitable habitat unlikely to occur. No known occurrences within 3 miles of fuel reduction zone, nearest occurrence 18 miles north in Petaluma.	None; species is unlikely to occur.
Navarretia rosulata	Marin County navarretia	CNPS 1B.2	Rocky, serpentine	Low; suitable habitat may be present. There are several occurrences within 1 mile of fuel reduction zone in Gary Giacomini open space preserve.	Low; species will be included in environmental training for avoidance (ET-1).
Pentachaeta bellidiflora	white-rayed pentachaeta	FE, SE, CRPR 1B.1	Cismontane woodland, Valley and foothill grassland (often serpentinite)	None; suitable habitat unlikely to occur. No occurrences recorded within or near the fuel reduction zone. Nearest occurrence located 3.3 miles southwest near Kent Lake.	None; species is unlikely to occur.
Pleuropogon hooverianus	North Coast semaphore grass	ST, CRPR 1B.1	Broad-leafed upland forest, meadows and seeps, North Coast coniferous forest	Low; suitable habitat may to occur. Nearest occurrence located near entrance to water treatment plant on Sir Francis Drake Blvd, 0.4 mile from fuel reduction zone.	Low; species will be included in environmental training for avoidance (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Quercus parvula var. tamalpaisensis	Tamalpais oak	CRPR 1B.3	Moist woodland or forest areas, often below elevation of 35 ft, specifically on Mt. Tamalpais	Low; suitable habitat unlikely to occur. Nearest occurrence located 2 miles from fuel reduction zone on Hunt camp Fire Road in Gary Giacomini open space preserve.	Low; species will be included in environmental training for avoidance (ET-1).
Sidalcea hickmanii ssp. viridis	Marin checkerbloom	CNPS 1B.1	Dry ridges near coast, serpentine	Low; suitable habitat may occur. Only CNDDB occurrence from 1954 on Big Carson Ridge, this species has not been observed at this location since 1996.	Low; species will be included in environmental training for avoidance (ET-1).
Streptanthus batrachopus	Tamalpais jewelflower	CNPS 1B.3	Serpentine barrens, chaparral	Low; suitable habitat may be present. More than 25 occurrences located over 1.5 miles from the fuel reduction zone in Gary Giacomini open space preserve, Kent Lake, and Alpine Lake.	Low; species will be included in environmental training for avoidance (ET-1).
Streptanthus glandulosus ssp. pulchellus	Mt. Tamalpais bristly jewelflower	CNPS 1B.2	Chaparral, valley grassland	Moderate; suitable habitat may be present. Nearest occurrence on 0.6 miles south of the fuel reduction zone on Blue Ridge Fire Road in White Hill open space preserve.	Low; species will be included in environmental training for avoidance (ET-1); if work that could damage the flowering body occurs during the blooming season, surveys will be conducted and if encountered, the species and buffer will be flagged for avoidance (ES-1).
Trifolium amoenum	two-fork clover	FE, 1B.1	Coastal bluff scrub, Valley and foothill	None; suitable habitat unlikely to occur, no occurrences recorded	None; species is unlikely to occur.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			grassland (sometimes serpentinite)	within or near the fuel reduction zone.	
Sensitive Wildlife					
Dicamptodon ensatus	California giant salamander	SSC	Meadows and seeps within North Coast coniferous forest, and riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults typically found in wet forests under rocks and logs near streams and lakes	Low; suitable breeding habitat does not occur within the fuel reduction zone. Nearest occurrence from 2015 located in Willis Evans Creek, approximately 0.6 miles west of the fuel reduction zone. The fuel reduction zone is within species dispersal range of riparian habitat around the northern end of the fuel reduction zone, however the residential development between Willis Evans Creek likely poses a barrier for dispersal upland into the fuel reduction zone.	Low; work will not occur in suitable habitat breeding habitat but species may disperse into the fuel reduction zone. Species will be included in environmental training for avoidance (ET-1).
Rana boylii	foothill yellow-legged frog - north coast DPS	SSC	Closely associated with rocky streams in a variety of habitats, including foothill hardwood, valley-foothill riparian, coastal scrub, mixed conifer, mixed	Low; suitable mixed conifer habitat may occur within fuel reduction zone, though species is unlikely to disperse far away from stream habitat which does not occur within the fuel reduction zone. One 1952 occurrence documented 200 feet north of fuel reduction zone in	Low; work will not occur in suitable habitat breeding habitat but species may disperse into the fuel reduction zone. Species will be included in environmental training for avoidance (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			chaparral, and wet meadows	San Geronimo Creek. Other recent occurrences are north of fuel reduction zone in Nicasio Creek, south of fuel reduction zone in Cascade Creek, and southwest of fuel reduction zone in Big Carson Creek and Little Carson Creek. Species has not been observed near fuel reduction zone since 1952.	
Rana draytonii	California red-legged frog	FT, SSC	Breeds in ponds/slow moving streams, may use grassland and oak woodland for dispersal and foraging	None; suitable habitat does not occur within fuel reduction zone, but may be within dispersal range from suitable habitat. No documented occurrences within 3 miles of fuel reduction zone. Two freshwater emergent wetlands occur on either side of Sir Francis Drake Boulevard 0.15 and 0.2 miles northeast of the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Agelaius tricolor	tricolored blackbird	ST, SSC	Constructs nests in dense stands of tule, cattail, or other dense marshland vegetation. Requires protected nesting substrate and foraging areas within a few miles of the colony.	None; suitable nesting habitat does not occur. One occurrence within 3 miles of fuel reduction zone from 2017, located in a residence on Sir Francis Drake Blvd in Fairfax.	None; work will not occur in suitable habitat and species is unlikely to occur.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Aquila chrysaetos	golden eagle	FP	Inhabits a variety of habitats, including forests, canyons, shrub lands, grasslands, and oak woodlands. Nesting habitat includes cliffs, tall trees, or human-made structures such as towers. Forages in open grasslands and oak savannah, occasionally in oak woodland and open shrubland.	None; suitable nesting habitat unlikely to occur and low potential for flyovers. No known CNDDB occurrences within 3 miles of fuel reduction zone. No record of golden eagles nesting in proximity to fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Asio otus	long-eared owl	SSC	Nest in conifer, oak, and riparian woodlands adjacent to open grassland, meadow, or shrubland, where they forage.	Low; suitable foraging and nesting habitat may occur. No known occurrences or observations within 3 miles of fuel reduction zones. eBird records are obscured due to status as 'Sensitive Species'. This enigmatic species is difficult to detect in California.	Low; work will occur outside of nesting bird season or pre-treatment surveys will be conducted and if nest observed, it will be flagged for avoidance (NB-1, NB-2, NB-3). Species will be included in environmental training for avoidance (ET-1).
Brachyramphus marmoratus	marbled murrelet	FT	Breeds inland on mountains near coast	None; suitable habitat does not occur. No eBird or CNDDB occurrences recorded within 3 miles of the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Circus hudsonius	northern harrier	SSC	Occurs in sloughs, wet meadows, marshlands, swamps,	Low; suitable foraging habitat present within fuel reduction zone, though nesting habitat is	Low; work will occur outside of nesting bird season or pre-treatment surveys will be

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			prairies, plains, grasslands, shrublands, large forest openings, or low woody or herbaceous vegetation. Nests on the ground in dense clumps of vegetation, such as grasses or rushes.	less likely, possibility for flyovers. No known nesting occurrences or observations within 3 miles of fuel reduction zone. Several flyover occurrences within 1 mile of the fuel reduction zone.	conducted and if nest observed, it will be flagged for avoidance (NB-1, NB-2, NB-3). Species will be included in environmental training for avoidance (ET-1).
Contopus cooperi	olive-sided flycatcher	SSC	Known to breed in coniferous forests. Nest in forest openings as well as meadows with decaying and dead trees that provide with perches for singing, observing predators, and foraging.	Moderate; suitable nesting habitat is present within and adjacent to the fuel reduction zone. Several eBird observations in White Hill Preserve, Gary Giacomini open space preserve, and in Woodacre.	Low; work will occur outside of nesting bird season or pre-treatment surveys will be conducted and if nest observed, it will be flagged for avoidance (NB-1, NB-2, NB-3). Species will be included in environmental training for avoidance (ET-1).
Cypseloides niger	black swift	SSC	Nests on ledges or in crevices in steep cliffs along coast or near streams or waterfalls in mountains	None; suitable nesting and foraging habitat unlikely to occur, species is an aerial forager. No observations recorded within 3 miles of fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.
Haliaetus leucocephalus	bald eagle	CE	Mountain and foothill forests, woodlands near waterbodies	Low; suitable habitat unlikely to occur, though there is potential for flyovers. Several flyovers	Low; work will occur outside of nesting bird season or pre-treatment surveys will be

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				within 3 miles of fuel reduction zone. A majority of eBird records are observations of adult bald eagles, the lack of immature eagles may indicate that there are no nesting pairs near the fuel reduction zone.	conducted and if nest observed, it will be flagged for avoidance (NB-1, NB-2, NB-3). Species will be included in environmental training for avoidance (ET-1).
Melospiza melodia graminea	Santa Barbara song sparrow	SSC	Endemic to freshwater and coastal scrubland on Channel Islands and Santa Barbara Island, where it is now extirpated.	None; suitable habitat does not occur. No occurrences or observations within 3 miles of fuel reduction zone. Region is outside the known species range.	None; work will not occur in suitable habitat and species is unlikely to occur.
Passerculus sandwichensis belding	Belding's savannah sparrow	CE	Coastal marshes	None; suitable habitat does not occur. No occurrences or observations within 3 miles of fuel reduction zone. Region is outside the known species range.	None; work will not occur in suitable habitat and species is unlikely to occur.
Sternula antillarum browni	California least tern	FE, SE	Nests on beaches, mudflats, and sand dunes	None; suitable nesting or foraging habitat does not occur. Least terns forage over open water and nest in coastal dunes. No occurrences documented nearby.	None; work will not occur in suitable habitat and species is unlikely to occur.
Strix occidentalis caurina	northern spotted owl	FT, ST	Dense canopies of mature and old-growth forests. Nests in tree hollows	Moderate; suitable nesting habitat unlikely to occur, and if so, nesting habitat may occur within northern section of the fuel reduction zone. No	Low; work would occur outside nesting season (NSO-1) or NSO protocol level surveys will be conducted (NSO-2). Treatment will focus on small trees and

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				occurrences recorded within fuel reduction zone. 1 activity center, 13 nests, and 7 pair and young observations detected 0.25 miles southeast of fuel reduction zone in coniferous forests of White Hall Preserve.	hazardous fuels; healthy, mature trees would not be removed. Removal of large hazard trees will occur with consultation with a qualified biologist (NSO-3). Dusky-footed woodrat nests would be retained as this species is an important prey item for NSO (NSO-4). NSO and woodrat species will be included in environmental training for avoidance (ET-1), and woodrat nests will be flagged during pre-treatment surveys.
Strix occidentalis occidentalis	California spotted owl	SSC	Found primarily in mid-elevation evergreen and mixed evergreen forests throughout the Sierra Nevada Mountain range. Breed and roost in old-growth forests with dense, multi-layer canopy and downed woody debris.	None; no known occurrences or observations within 3 miles of fuel reduction zone. Region is outside the known species range.	None; species does not occur.
Bombus caliginosus	obscure bumble bee	SSC	Narrow coastal range; associated with developed habitat and often seen foraging on blackberry,	Low; suitable nesting and foraging habitat may be present within fuel reduction zones. Difficult to distinguish from common *B. vosnesenskii*.	None; pre-treatment surveys will be conducted, if bumblebee nest encountered, buffer will be flagged for avoidance. Species will be included in environmental training for avoidance (ET-1)

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			raspberry, or clover species		
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Overwinter from November to February	None; no occurrences recorded within fuel reduction zone. Potentially suitable habitat is present in the form of floral resources within the fuel reduction zone, but breeding and overwintering not likely due to lack of suitable habitat. No historic overwintering documented within or in proximity to fuel reduction zones.	None; work will not occur in suitable habitat and species is unlikely to occur.
Eucyclogobius newberryi	tidewater goby	FE	Brackish water lagoons, estuaries, and marshes along the California coast	None; suitable habitat is not present within fuel reduction zone.	None; work will not occur in suitable habitat and species does not occur.
Hesperoleucus venustus subditus	southern coastal roach	SSC	"Most abundant in mid-elevation streams in the Sierra Nevada foothills and in lower elevation San Francisco Bay streams but they may also be found in some rivers, such as the Stanislaus and Tuolumne. Roach	None; suitable habitat is not present within fuel reduction zone. Species was documented in Lagunitas Creek in 2003, approximately 0.15 miles from the fuel reduction zone.	None; work will not occur in suitable habitat and species does not occur.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			tolerate a relatively wide range of temperatures and dissolved oxygen		
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	FE, SE	levels."	None; suitable habitat is not present within fuel reduction zone. Species was documented in Lagunitas Creek in 2003, approximately 0.15 miles from the fuel reduction zone.	None; work will not occur in suitable habitat and species does not occur.
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	FT, SSC	Federal listing applies to populations between Punta Gorda and San Lorenzo River. State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen	None; suitable habitat is not present within fuel reduction zone. Species was documented in Lagunitas Creek in 2003, approximately 0.15 miles from the fuel reduction zone.	None; work will not occur in suitable habitat and species does not occur.
Actinemys marmorata	northwestern pond turtle	FC, SSC	Freshwater ponds and streams	None; no occurrences recorded and suitable habitat is not present within the fuel reduction zone.	None; work will not occur in suitable habitat and species is unlikely to occur.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Chelonia mydas	green sea turtle	FT	Marine	None; species does not occur in riparian habitat within Seaver fuel reduction zone.	None; work will not occur in suitable habitat and species is does not occur.

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
CE	California State Endangered	SSC	California State Species of Special Concern
CT	California State Threatened	CNPS	California Native Plant Society Ranks

Source: (CDFW 2025; CNPS 2025; CDFG 2003; Hickman 1993; Stebbins 2003)

Cultural Resources and Tribal Cultural Resources[13]

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

No intense ground disturbing activities (e.g., discing) would occur. Masticators may be used in targeted locations as well as hand pulling of invasive species, which could disturb soils. The potential to disturb previously undiscovered cultural resources is low since the proposed project activities would result in little to no new ground disturbance. Workers would participate in a cultural training and the Graton Rancheria would be notified of this project prior to proposed project implementation (CUL-1 and -4).

A cultural resources records search was completed for the fuel reduction zone (CUL-3) (Far Western 2025). No previously recorded archaeological resources were identified within the fuel reduction zone. The central and western portions of the fuel reduction zone were identified as having high or highest sensitivity for archaeological resources. Due to the high sensitivity, approximately 6.4 acres of the fuel reduction zone is recommended for surveying (CUL-3). Graton Rancheria would be notified of the opportunity to attend any surveys or monitoring in areas of cultural sensitivity within the fuel reduction zone (CUL-3). Resources would be flagged for avoidance or monitoring would be conducted if needed (CUL-3 and CUL-5).

Should a previously unidentified cultural resource be discovered, work would halt in the area and the resource fully avoided until the resource is reviewed by an archaeologist (CUL-2). If any resources are 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).

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 et al. 2009). Pile burning would be conducted so as to avoid impacts to cultural resources. Pile burning would only occur in areas that have been identified and inspected for the presence of cultural resources, depending on the location and previous use, as appropriate, or in areas that have had a cultural survey conducted and evidence of no resources to 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 for worker trips and equipment conducting the fuel reduction activities would consume energy, including gas, diesel, and motor oil. Vehicle engines and fuel used during

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

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 proposed fuel consumption would, additionally, be considered beneficial and not wasteful given the positive outcome of the work to create defensible space between occupied structures and open space areas. Implementation of the proposed project 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 and access as well as operation of equipment would occur within the fuel reduction zone. Work sites would be accessed on foot, and operation of ground-based equipment would occur. Soil erosion and loss of topsoil could occur during manual and mechanical vegetation cutting and removal through the exposure of bare soils or ground disturbance from pulling large vegetation or targeted mastication. After the vegetation treatments are completed, erosion and topsoil loss through loss of root-soil matrix strength if root systems die is expected to be minimal. Root systems of larger vegetation would generally be left in place, minimizing the potential for erosion. While some soil types present in work areas 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 and McDonald 2005). Erosion control devices would be installed (GEO-1) in areas where erosion could occur (e.g., steep slopes with apparent erosion). 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. Pulling of large vegetation would not occur during rain events or when soils are saturated (GEO-3). 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 treatment would involve manual and mechanical vegetation removal and pile burning within the fuel reduction zone. Greenhouse gas (GHG) emissions from pile burning and 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 for worker trips and debris disposal and equipment during these activities would generate some

GHG emissions, but not in significant quantities due to the limited duration and types of activities[14].

The treatment activities would primarily involve removal of dead and downed vegetation, which is no longer sequestering carbon and has begun to decay. The proposed project would also involve vegetation thinning and would not remove any healthy, mature trees. Thinning can result in greater sequestration rates by reducing competition for the larger, more resilient trees (CAL FIRE 2018). These processes are not quantified but would fluctuate during initial treatment and future maintenance. Due to the current higher fuel loads comprised of dense understory and jackpots of dead and downed vegetation, it is anticipated that a net release of carbon from removal of vegetation could occur from chipping activities accelerating decomposition, at least in the near-term as the ecosystem fuel loads are restored closer to pre-fire suppression conditions and wildland fire risk is minimized. 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). Off-road grading or other intense ground disturbance would not occur, ensuring that any potential existing contamination would not be disturbed and would not pose a risk to the environment or public. Pile burning would occur in areas of lowest risk for fire spread and under conditions to ensure control of the burn. Pile burning would only be performed with a burn permit by qualified personnel. Pile burning would adhere to all BAAD Regulation 5 Open Burning requirements. Worker 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).

Herbicides used under the proposed project would include those with the active ingredient triclopyr. All herbicide applications under the proposed project would be targeted. The proposed project would comply with all herbicide regulations (HAZ-4), including the Marin County Integrated Pest Management Policy and 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

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

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). Significant impacts related to hazards and hazardous materials would not occur.

Hydrology and Water Quality

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

Work areas would be mostly accessed using existing paved roads adjacent to the work areas. Training would ensure that workers avoid wetlands (ET-1). Any fuel reduction would be conducted by hand and alteration to, and deposition of debris would be 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 invasive species would occur within the fuel reduction zone. However, no intense ground disturbance such as grading or off-road equipment use would occur. The proposed project activities would not result in circumstances that would result in significant ground cover removal and, thus, significant erosion and subsequent sedimentation. For the rare instances where erosion could occur, erosion control measures would be implemented (GEO-1). 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.

Herbicides used for stump treatments would include the active ingredient triclopyr. The half-life of triclopyr varies dependent on the type of plant it is sprayed on. Triclopyr has a half-life range of 3 to 24 days in plants, and 8 to 46 days in soil. Due to its solubility, triclopyr has a half-life of around 1 day in water with light and 142 days without light (Strid et al. 2018). Herbicides would be applied in a targeted manner, and no broadcast or aerial spraying would occur. The herbicides proposed for use do not include the active ingredients that impair the nearby creeks and waterbodies. The proposed project would implement PDIFs HAZ-4 and HAZ-5. HAZ-4 would require that the project comply with all herbicide application regulations by ensuring that herbicide containers be triple rinsed with clean water at an approved site, and that herbicide application would not occur during rain events or if rain events are forecasted. HAZ-5 would ensure that herbicide mixing sites are located in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway, as well as using herbicides labeled for us in aquatic environments when using near aquatic habitats, such as ephemeral drainages. Significant water quality impacts would not occur.

Land Use and Planning

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

Implementation of the proposed project activities would not involve any new development or changes to land uses that could physically divide a community. The proposed project is consistent with the objectives of the Marin Wildfire Prevention Authority and the Marin County Community Wildfire Protection Plan (2023). 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?	☐	☒

Project 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. Fuel reduction activities are intended to reduce wildfire risks to life, property, and critical infrastructure 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 project activities would occur weekdays from 8:00 am to 5:00. This timeframe would conform with the appropriate noise ordinance (Marin County Noise Ordinance § 6.70.030(5)). The noise ordinance limits construction activities to Monday through Friday 7:00 am through 6:00 pm[15], which the project activities would conform with. Work would progress along the fuel reduction zone. Nearby residences would experience noise associated with activities, but it is anticipated that activities in any one location would only occur for a few hours. A single residence may be able to hear equipment operating for a day as activities progress along the fuel reduction zone. Measures to minimize noise disruption to nearby neighbors and sensitive receptors 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?	☐	☒

[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 Lmax at 50 feet (US DOT 2008) such that a comparison could be made and justification for ensuring work hours conform.

The workers implementing the fuel reduction activities, are anticipated to be sourced from the existing contractor or MCFD crews. 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?	☒	☐
Potential for significant impact?	☐	☒

Project activities would occur within the fuel reduction zone. Treatment areas that are accessible to the public may be closed for short durations during fuel reduction activities. The fuel reduction zone is located along a fire road that is not open to the public for recreational use. The fire road would be unavailable if needed or flagged off during fuel reduction activities, the treatments would be for a short duration in one area, typically for only a few hours to a few days. 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). Ample recreational opportunities are available within and surrounding the West Marin Zone (e.g., White Hill Preserve, Loma Alta Preserve, and Roys Redwoods Preserve that the few displaced recreationalists could use if discrete areas are unavailable due to fuel reduction activities. 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?	☐	☒

The proposed project would require 3 to 6 crew members and one chipper operator in addition to one project manager and one project coordinator, two to three crews may operate in the fuel reduction zone. Daily one-way vehicle trips would range from 8 to 24 (2 average trips per day per worker and 2 trips associated with haul trucks), which would not exceed screening 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 the fuel reduction zone and would not be a hazard to passing motorists or recreationalists due to the small size of the burns and monitoring during the burn.

Utilities and Service Systems

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

Biomass generated from vegetation removal activities would be processed using a chipper and hauled to a processing facility or broadcasted on site, if pile burning is 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 or chipped and broadcasted. Materials would be hauled to the nearby West Marin Compost or Marin Resource Recovery Center for disposal which have a combined permitted capacity of 2,840 tons per day, or other appropriate facility, and would be able to accept the chipped material (CalRecycle 2025). Any waste generated by the workers, such as spent vehicle batteries or refuse would be properly disposed of at an appropriate facility. No impact related to utilities and service systems would occur.

Wildfire

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

The fuel reduction zone is within the State Responsibility Area (SRA) and is identified as a high fire hazard severity zone (CALFIRE 2024). The purpose of the proposed project is to reduce fuel loads, which would reduce the spread and intensity of a wildfire, should one occur, and to provide defensible space for fire suppression crews to safely defend communities.

The determination that the project treatments would achieve the purpose of reducing wildfire risk and severity is supported by a substantial amount of research. A comprehensive meta-analysis shows that surface fuel treatments have a large and substantial effect on fire behavior, including reductions in canopy volume scorch, scorch height, and reductions in flame length (Martinson and Omi 2013). Fuel treatments in chaparral reduce potential wildfire intensity by reducing dead woody vegetation, shrub height, and vegetation continuity, thereby reducing flame heights and heat during a wildfire. Chaparral communities are generally considered a fire-adapted community. Although substantial variation exists among chaparral communities, many species rely on post-fire seed germination and/or resprouting (Lucas et al. 2017). Studies have

[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 project.

found that hand thinning or removal of chaparral was effective at reducing shrub height and dead vegetation (Martorano et al. 2020). Required measures included in the project would reduce the risk of type conversion of chaparral to non-native grasslands (refer to the Biological Resources analysis for an assessment of this risk). Wildfire hazards in chaparral differ from non-native grasslands in that fine fuel loads and the rate of wildfire spread is higher in grasslands, but the fire intensity is much lower and may be easier to control (Grupenhoff and Safford 2024). The proposed thinning in shrub communities as part of this proposed project would not increase wildfire risks.

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. Impacts to people and structures from increased fire risk would not occur.

References

muBLM. 2007. *Vegetation Treatments Using Herbicides Final Programmatic EIS*.

Board of Forestry and Fire Protection. n.d. “Answers to Frequently Asked Questions Relating to the Program EIR for the California Vegetation Treatment Program.”

CALFIRE. 2024. “Fire Hazard Severity Zone Viewer.” Web Map. https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/.

California Department of Fish and Game. 2003. “List of California Terrestrial Natural Communities.”

California Department of Fish and Wildlife. 2025. “RareFind 5.” CNDDB Maps and Data. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

California Department of Transportation. 2024. “California State Scenic Highway System Map.” Web Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa.

California Native Plant Society. 2025. “Electronic Inventory of Rare and Endangered Vascular Plants of California, Database Search for Marin County and Surrounding Quadrangles.” CNPS Inventory of Rare Plants. https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants.

California State Water Resources Control Board. 2025. “GeoTracker.” Web Map. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Mill+Valley.

CalRecycle. 2025. “SWIS Facility/Site Search.” https://www2.calrecycle.ca.gov/SolidWaste/Site/Search.

Clark, Laurie, Gary J. Roloff, Vickie L. Tatum, and Larry L. Irwin. 2009. “Technical Bulletin No. 0970: Forest Herbicide Effects on Pacific Northwest Ecosystems: A Literature Review.” National Council for Air and Stream Improvement, December. https://www.ncasi.org/resource/technical-bulletin-no-0970-forest-herbicide-effects-on-pacific-northwest-ecosystems-a-literature-review/.

DTSC. 2025. “EnviroStor Map.” https://www.envirostor.dtsc.ca.gov/public/map/.

Far Western Anthropological Group, Inc. 2025. *Cultural Resources Desktop Review for the Blueberry Ridge Fuel Reduction Project, Marin County, California.*

Fire and Environmental Research Applications Team. 2014. “Piled Fuels Biomass and Emissions Calculator.” https://depts.washington.edu/nwfire/piles/.

Forest Climate Action Team. 2018. “California Forest Carbon Plan: Managing Our Forest Landscapes in a Changing Climate.” May. Sacramento, CA. https://ww2.arb.ca.gov/sites/default/files/2019-01/California-Forest-Carbon-Plan-Final-Draft-for-Public-Release-May-2018.pdf.

Grupenhoff, Ashley R., and Hugh D. Safford. 2024. “High Fire Frequency in California Chaparral Reduces Postfire Shrub Regeneration and Native Plant Diversity.” *Ecosphere* 15 (12): e70128. https://doi.org/10.1002/ecs2.70128.

Gutiérrez, R. J., A. B. Franklin, and W. S. Lahaye. 2020. “Spotted Owl (Strix Occidentalis), Version 1.0.” *Birds of the World*, ahead of print. https://doi.org/10.2173/bow.spoowl.01.

Hickman, James C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press.

Lang, Des, and Warren McDonald. 2005. “Maintaining Groundcover to Reduce Erosion and Sustain Production.” NSW Department of Primary Industries, January 14. https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0018/162306/groundcover-for-pastures.pdf.

Lucas, Timothy A., Reanna A. Doña, Wancen Jiang, et al. 2017. “An Individual-Based Model of Chaparral Vegetation Response to Frequent Wildfires.” *Theoretical Ecology* 10 (2): 217–33. https://doi.org/10.1007/s12080-016-0324-x.

Marin County Fire Department (MCFD). 2023. *2023 Marin County Unit Strategic Fire Plan & Community Wildfire Protection Plan (CWPP)*. https://assets.marincounty.gov/marincounty-prod/public/2024-10/2023-marin-county-fire-plan.pdf.

Marin Municipal Water District. 2019. *Final Program Environmental Impact Report for the Biodiversity, Fire, and Fuels Integrated Plan*. State Clearinghouse No. 2017012007. Panorama Environmental, Inc. https://www.marinwater.org/sites/default/files/2020-11/BFFIP%20Final%20EIR%20and%20Response%20to%20Comments.pdf.

Martinson, Erik J., and Philip N. Omi. 2013. *Fuel Treatments and Fire Severity: A Meta-Analysis*. RMRS-RP-103. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. https://doi.org/10.2737/RMRS-RP-103.

Martorano, Caroline A., Jeffrey M. Kane, Eamon A. Engber, and Jennifer Gibson. 2020. “Long-Term Fuel and Understorey Vegetation Response to Fuel Treatments in Oak and Chaparral Stands of Northern California.” *Applied Vegetation Science* 24 (1): e12551. https://doi.org/10.1111/avsc.12551.

Minnesota Department of Agriculture. n.d. “Glufosinate Herbicide.” https://www.mda.state.mn.us/glufosinate-herbicide.

Oneto, SR, G. Kyser, and D JM. 2010. *Efficacy of Mechanical and Herbicide Control Methods for Scotch Broom (Cytisus Scoparius) and Cost Analysis of Chemical Control Options.* Journal of Invasive Plant Science and Managemen.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. Third edition. Houghton Mifflin Company.

Strid, A, W Hanson, A Cross, and J Jenkins. 2018. “Triclopyr General Fact Sheet.” National Pesticide Information Center: Oregon State University. npic.orst.edu/factsheets/triclopyrgen.html.

Sturdevant, Jay, Rod Skalsky, Cody Wienk, Brennan Dolan, Dustin Gonzalez, and David Amrine. 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 Project Reports*, January 1. https://digitalcommons.unl.edu/jfspresearch/149.

Urbanski, S. 2014. “Wildland Fire Emissions, Carbon and Climate: Emission Factors.” In *Forest Ecology and Management*.

U.S. Environmental Protection Agency. 1998. “EPA R.E.D. FACTS TRICLOPYR.” https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_G-82_1-Oct-98.pdf.

USFWS. 2025. “National Wetlands Inventory.” Surface Waters and Wetlands.