Notice of Exemption

21-2022-250

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):
City of San Rafael
1400 Fifth Ave.
San Rafael, CA 94901

FILED
NOV 21 2022
SHELLY SCOTT
MARIN COUNTY CLERK
By [signature] Deputy

Project Title: San Rafael Zone Evacuation Route Core Project 2022/2023

Project Applicant: City of San Rafael

Project Location – Specific: Roadways throughout the City of San Rafael.

Project Location – City:
City of San Rafael

Project Location – County:
Marin County

Description of Nature, Purpose and Beneficiaries of Project:

The purpose of the proposed project is to improve vegetation clearance along routes in the San Rafael Zone to provide better access for first responders and emergency vehicles and safer evacuation for residents. The proposed project would also improve access by reducing heat, flame, ember, and smoke impingement on roadways and nearby structures for evacuating residents in the event of an approaching wildfire.

Name of Public Agency Approving Project: City of San Rafael

Name of Person or Agency Carrying Out Project: City of San Rafael

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 removal 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 Section 15301, 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,

POSTED 11/21/22 TO 12/21/22

involving negligible or no expansion of existing or former use. The proposed project would extend vegetation thinning from 10 feet to up to 30 feet from existing roadways identified in the approved San Rafael Zone Evacuation Route Core Project. Additionally, the proposed project would involve vegetation treatment along approximately 6.0 miles of roadways in the 2022/2023 fiscal year and up to 276 miles of roadways throughout the San Rafael Zone in future years. One point six miles of the 2022/2023 roadways overlap with the approved San Rafael Zone Evacuation Route Core Project roadways. However, these areas are shown as included in the 2022/2023 treatment areas since treatment may not have occurred in these areas during 2021 or additional treatment is identified for 2022/2023. The scope of the proposed project shown in Figure 1 is consistent with a minor alteration to the condition of the vegetation along the routes and maintenance of the existing roadways.

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:**
Alicia Giudice, City of San Rafael	(415) 485-3092

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☐

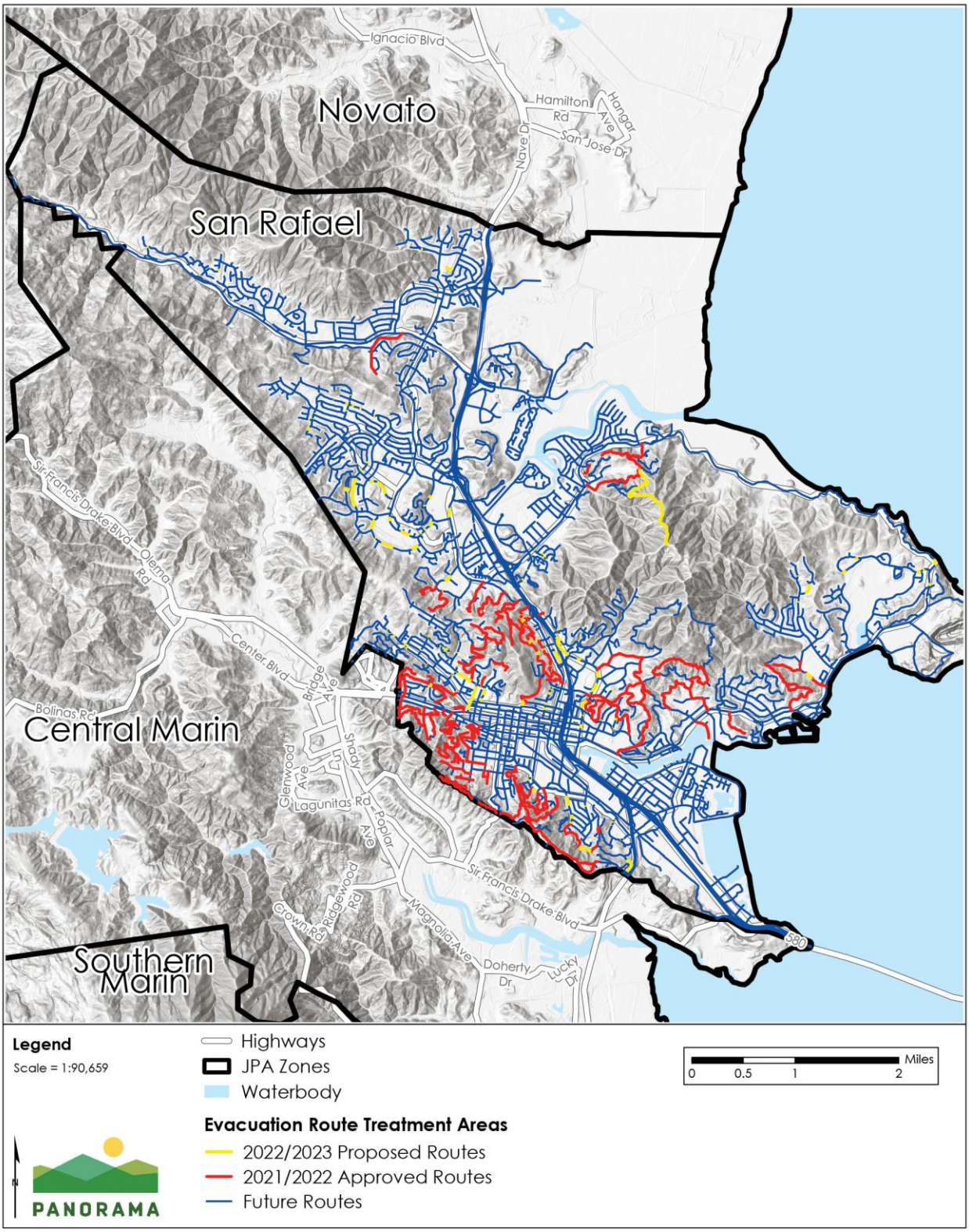
Signature: Luis Rodriguez Date: 11/21/2022 Title: Assistant City Planner

☒ 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 Proposed Project Location



MARIN WILDFIRE PREVENTION AUTHORITY

California Environmental Quality Act Categorical Exemption Determination Memorandum

Date: November 17, 2022

Project: San Rafael Zone Evacuation Route Core Project 2022/2023

Categorical Exemption Summary

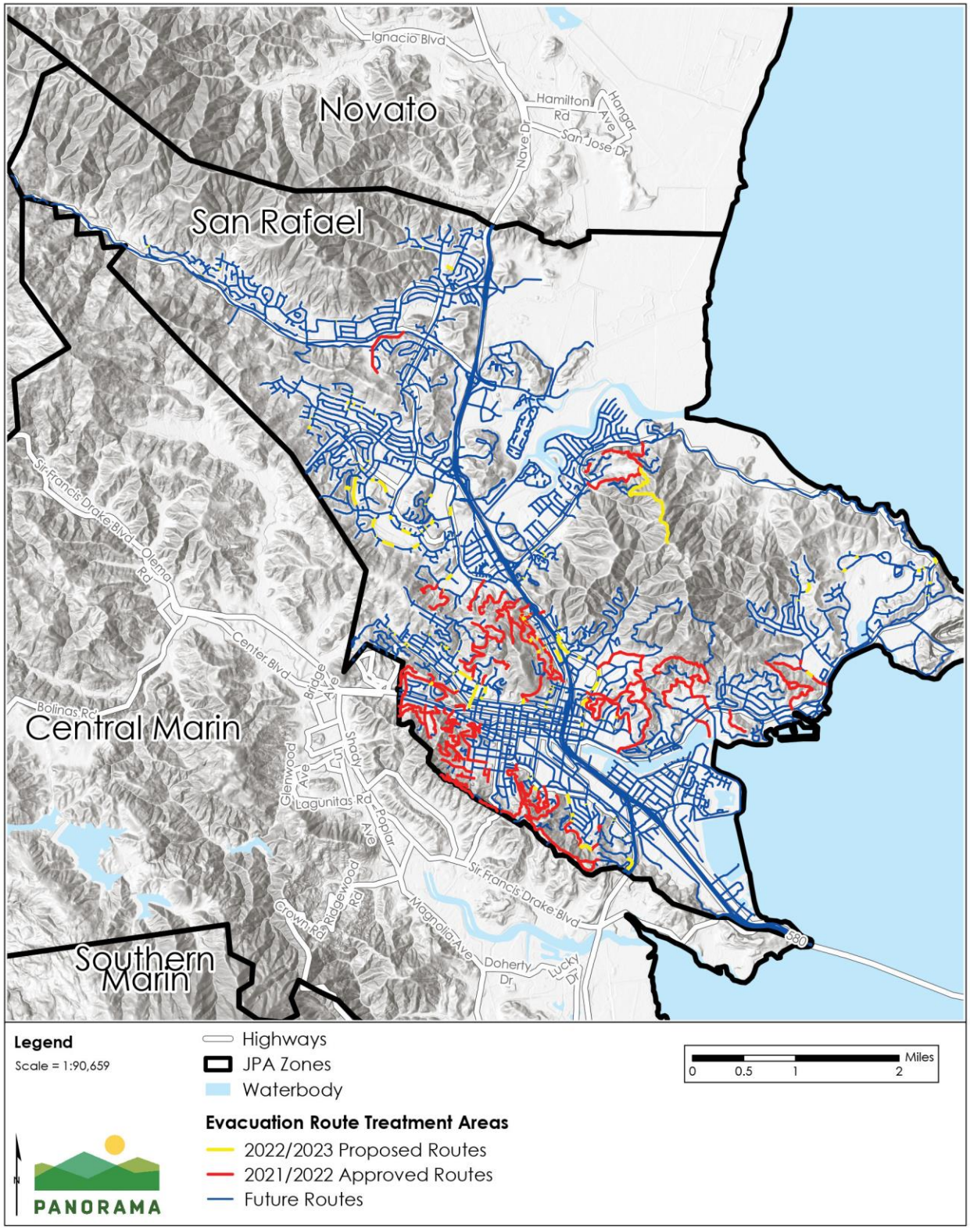
The City of San Rafael as the lead agency under California Environmental Quality Act (CEQA) has determined that the San Rafael Zone Evacuation Route Core Project (proposed project) is categorically exempt under CEQA Guidelines Section 15304, Class 4 for Minor Alterations to Land and Section 15301, Class 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 (MWPA) as the responsible agency under CEQA concurs with the City of San Rafael's determination that the proposed project is exempt under CEQA.

The proposed project would involve vegetation thinning and removal within typically 10 feet but up to 30 feet of the edge of roadways identified by the City of San Rafael as key routes used for evacuation and ingress/egress. A Notice of Exemption (NOE) was filed in July 2021 for the San Rafael Zone Evacuation Route Core Project. The San Rafael Zone Evacuation Route Core Project approved the treatment of approximately 68 miles of roadways in the City of San Rafael and approximately 12 miles of roadways in County Service Areas (CSAs). The proposed project would extend vegetation thinning from 10 feet to up to 30 feet from existing roadways identified in the approved San Rafael Zone Evacuation Route Core Project. Additionally, the proposed project would involve vegetation treatment along approximately 6.0 miles of roadways in the 2022/2023 fiscal year and up to 276 miles of roadways throughout the San Rafael Zone in future years. One point six miles of the 2022/2023 roadways overlap with the approved San Rafael Zone Evacuation Route Core Project roadways. However, these areas are shown as included in the 2022/2023 treatment areas since treatment may not have occurred in these areas during 2021 or additional treatment is identified for 2022/2023. The scope of the proposed project shown in Figure 1 is consistent with a minor alteration to the condition of the vegetation along the routes and maintenance of the existing roadways.

The following analysis demonstrates the proposed project would not result in adverse environmental effects, supporting the 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.

Figure 1 Project Roadways



San Rafael Zone Evacuation Route Core Project 2022/2023 - Marin Wildfire Prevention Authority

Background

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

Purpose and Need

The purpose of the proposed project is to improve vegetation clearance along routes in the San Rafael Zone to provide better access for first responders and emergency vehicles and safer evacuation for residents. The proposed project would also improve access by reducing heat, flame, ember, and smoke impingement on roadways and nearby structures for evacuating residents in the event of an approaching wildfire.

Project Description

Treatment Area

The proposed activities would be completed along prioritized roads within the City of San Rafael, as shown in Figure 1. A total of 360.4 miles of roads may be treated, when and as needed, under this proposed project over many years. As discussed above, vegetation thinning and removal was approved along 80 miles of roadways under the San Rafael Zone Evacuation Route Core Project and approximately 6 miles of roadways would be treated in 2022. While 276 miles of roadways are identified for future treatment, it is unlikely that all the roadways would require treatment as some roadways are in urban and built environments without vegetation. Further, the roadways treated annually would comprise a small subset of all the roadways in the San Rafael Zone. Treatment would only occur where and when needed based on the City's ongoing inventory of roadways and community needs.

To improve evacuation routes, invasive, non-native, and fire-hazardous vegetation and accumulated dead biomass would be reduced typically within 10 feet from road edges but could extend up to 30 feet from road edges in some areas. The types of topographical features (e.g., steep slopes) or vegetation fuels (e.g., dense eucalyptus or broom) present may necessitate greater treatment distances beyond 10 feet, up to 30 feet from roadways. Areas where fuel treatments may need to extend beyond 10 feet would be determined by a forester or otherwise qualified professional who understands forest ecology and fuel management or a fire professional, prior to treatments. Work would focus on thinning and removing vegetation (e.g., overhanging limbs, understory brush) up to 15 feet above the road surface and up to 30 feet from road edges. Generally, invasive, non-native species, hazardous trees, and fire-hazardous vegetation would be targeted. Small trees under 8 inches diameter at breast height (DBH) may be removed from the understory. In areas with eucalyptus or other fire-hazardous invasive trees, removal of trees up to 10 inches DBH may be performed. Hazardous trees (e.g., dead or dying trees) identified by an arborist or qualified fire professional may also be removed along this evacuation route. No healthy, mature, scenic trees would be removed under this proposed

project. Fuel reduction treatments would avoid wetted streams and wetlands within the proposed project area.

Treatment Method

Proposed project treatments would include handheld manual and mechanical fuel reduction using chainsaws, string trimmers, pull saws, other similar handheld tools, and chippers. A tractor with a mower or masticator head may operate from the road prism. Crews may conduct vegetation trimming from bucket trucks. A trailer-mounted chipper would be operated from the roadways.

Biomass Processing

Proposed project debris would be disposed of through chipping and hauling and chipping and broadcasting. Approximately 20 to 25 cubic yards of material could be disposed of each workday. The vegetative material would be fed through the chipper and broadcast at the treatment area or hauled away for disposal. Disposed debris would be hauled to Marin Resource Recovery Center, West Marin Compost, or other appropriate facility.

Workers

A single contractor crew would consist of 3 to 6 workers. Two to three crews may operate along evacuation routes in the San Rafael Zone simultaneously on a single day.

Site Access

Proposed project work would be accessed from existing paved roads. Access to the work area would occur along project roadways. Vehicles and equipment would be staged at the contractor's yard daily.

Schedule and Duration

Treatments would be conducted during weekdays from 8:00 a.m. to 4:00 p.m. The roadside vegetation thinning treatment is anticipated to start in Fall 2022. Following proposed project implementation, the condition of the evacuation routes would be monitored and reassessed by fire department staff every year to evaluate when maintenance is needed. Subsequent treatments are anticipated to be the same as the proposed activities but are subject to change depending on the condition of the fuel reduction zone and response to initial treatment.

Project Design and Implementation Features

The MWPA has developed specific design and implementation features adapted from several source documents referenced in footnotes after each name that will be incorporated as applicable into the project design and implementation for each of its projects. The following specific design and implementation measures are part of the proposed project:

CUL-1 Training[1]

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

CUL-2 Unanticipated Discovery[2]

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

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

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

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

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.

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

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

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

CUL-5 Cultural Resources Monitoring

Based on the results of CUL-3 and -4[3], 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 judgement 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

[3] PDIF CUL-4 is not part of this proposed project.

[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.

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).

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).

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

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 native plant species whenever possible.

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

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

- For areas between 50 percent and 70 percent ground cover left:
- Sow native grasses and other suitable native vegetation on denuded areas where natural colonization or other replanting will not occur rapidly; use slash or chips to prevent erosion on such areas.
- Use surface mounds, depressions, logs, rocks, trees and stumps, slash and brush, the litter layer, and native herbaceous vegetation downslope of denuded areas to reduce sedimentation and erosion, as necessary to prevent erosion or slope destabilization.
- Install approved, biodegradable erosion-control measures and non-filament-based geotextiles (e.g., coir, jute) when:
  - Conducting substantial ground-disturbing work (e.g., use of heavy equipment, pulling large vegetation) within 100 feet and upslope of currently flowing or wet wetlands, streams, lakes, and riparian areas;
  - Causing soil disturbance on moderate to steep (10 percent slope and greater) slopes; and
  - Removing invasive plants from stream banks to prevent sediment movement into watercourses and to protect bank stability.
- Sediment-control devices, if installed, will be certified weed-free, as appropriate. Sediment control devices will be inspected daily during active work to ensure that they are repaired and working as needed to prevent sediment transport into the waterbodies.

For areas with less than 50 percent ground cover:

- Any of the above measures
- Stabilize with mulch or equivalent immediately after project activities, to the maximum extent practicable.
- If project activities could result in substantial sediment discharge from soil disturbance, as determined by the qualified personnel (e.g., RPF), organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion.
- Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface.

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

GEO-3 Soil Saturation and Rain Event Measures[1,2,5]

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[1,5]

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[1,4,5]

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

NOI-1 Minimization of Noise Disruption to Nearby Neighbors and Sensitive Receptors[5,7]

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

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

- Using noise control technologies on equipment (e.g., mufflers, ducts, and acoustically attenuating shields)
- Locating stationary noise sources (e.g., pumps and generators) away from sensitive receptors
- Closing engine shrouds during equipment operations

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

- 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[1]

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

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

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

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

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

- If it is conclusively determined that there are nesting northern spotted owls, planned activities that generate noise (e.g., mowing, heavy equipment usage, crews with hand tools that generate noise) in areas without regular human disturbances from human residency (e.g., leaf blowers, home construction and remodeling, roadways), that are within 0.25-mile of an identified active nest will not

begin prior to September 1 unless the young have fledged, at which time work may begin no earlier than July 10. Prescribed burns may only occur within suitable northern spotted owl habitat (as determined by a qualified biologist) during the nesting season if protocol surveys have determined that northern spotted owl nesting is not occurring in the area of planned activity.

- If work must occur within 0.25 mile, and work has been determined to have the potential to impact an active northern spotted owl nest, CDFW and USFWS would be consulted to determine if take could occur and whether further permits are required.

NSO-3 Northern Spotted Owl Habitat Alteration[1]

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

NSO-4 Retain Dusky-footed Woodrat Nests[1,6]

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[1,5,6,8]

Whenever possible, schedule work outside of the bird nesting season, which is generally from February 1 through July 31st [9]. Not all species nest between the regulatory season, and active nests that are encountered year-round are protected.

NB-2 Nesting Bird Surveys[1,5,6]

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 the MWPA or lead public agency) will conduct a pre-activity survey for nesting birds.

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

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

[9] 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.

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

NB-3 Nesting Birds: Active Nest Avoidance[1,5,6,8]

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[1,5,6,8]

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, (2) would include removal or trimming of trees where a bat could be roosting, or (3) would involve removal or trimming of a tree with mechanized equipment adjacent to trees or structures that could have roosting bats and (4) the work would commence between March 1 and July 31, during the bat maternity period, a pre-activity survey will be conducted for roosting bats within 2 weeks prior to work to ensure that no roosting bats will be disturbed during work. This survey can be conducted concurrent with other surveys for other sensitive species. Trees and shrubs within the work footprint that have been determined to be unoccupied by roosting

bats, or that are located outside the avoidance buffer for active roosting sites may be removed. Roosting initiated during work is presumed to be unaffected, and no buffer would be necessary.

RB-2 Avoidance of Maternity Roosts and Day Roosts[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[1,2]

The following measures will be implemented to maintain emergency access:

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

TR-2 Traffic Control Measures[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 wetted watercourses and wetland areas would be avoided. Riparian woodlands are unlikely to be encountered but any vegetation trimming or thinning would be conducted by hand and alteration to and deposition of debris avoided within the bed, channel, or bank of a waterway (SH-1). Due to the location, scope, and design of the proposed project, the proposed project would not adversely affect riparian habitats as the work would not affect shade or species diversity and could be beneficial if invasive species removal is needed, therefore, exception (a) does not apply.

(b) Cumulative Impact:
Other roadside vegetation thinning treatments along evacuation routes are occurring in the San Rafael Zone and greater Marin County and would not result in cumulative impacts as defined in CEQA Guidelines Section 15300.2. While 1.6 miles of the 2022/2023 roadways overlap with the

approved San Rafael Zone Evacuation Route Core Project roadways, these areas are included in the 2022/2023 treatment areas since treatment may not have occurred in 2021 or additional treatment was identified. All of the 2021/2022 San Rafael Zone Evacuation Route Core Project roadways are included in this proposed project in order to extend the analyzed vegetation treatment area from 10 feet to up to 30 feet around existing roadways. Ongoing maintenance of the vegetation along the proposed project roadways would be limited to the types of activities previously described, which would be performed periodically to maintain fuel reduction areas to help slow or stop the spread of wildfire and provide safe access for emergency responders. 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 generally vegetated and suburban character would remain. The design and implementation of this proposed project (e.g., NB-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 vegetation management and future maintenance activities along roadways 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 (e.g., NB-1, RB-1). The proposed project would modify the 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 treatments could be visible; therefore, exception (d) does not apply (Caltrans, 2022).

(e) Hazardous Waste Sites:
Per the current government database of hazardous waste sites at the time of this filing, several hazardous waste sites are located adjacent to the evacuation routes in the areas that could have vegetation treatment (SWRCB, 2022). No intensive ground disturbing activities that could unearth potentially contaminated soils and expose the public or the environment to contamination would occur; therefore, exception (e) does not apply.

(f) Historical Resources:
Some hand pulling of invasive plants could occur. As part of the proposed project, workers would participate in a cultural training prior to proposed project implementation (CUL-1). 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 along the evacuation roadways is characterized by primarily residential and vegetated recreational areas. Vegetation consists of urban forests and vegetation as well as grassy lowlands and hills. Many of the roadways are within an urban environment and would not require vegetation treatment. Motorists on the public roadways would be able to see crews and treatment activities. Viewers in the vicinity of the routes could also include recreationalists and homeowners that are adjacent to the fuel reduction areas.

Equipment and trucks performing the work would be temporarily visible along the evacuation roadways. The vegetation thinning activities would be in one area for a short period of time (a few hours to a day). Motorists on the public roadways would be able to see crews and treatment activities.

Minor changes to the vegetation patterns and form would occur from manual and mechanical removal of small or hazard trees and shrubs within typically 10 feet of the road edge. The vegetative material would be chipped and hauled away from the work area. Viewers in the immediate vicinity may notice changes in the density and type of the vegetation along the evacuation routes. These methods of vegetation thinning currently occur in the Southern Marin Zone as well as throughout broader Marin County to maintain ingress and egress as well as reduce potential for ignition from roads. 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 views from nearby roads or trails because the visual change would be minimal, is typical in the area, and would only extend up to 30 feet from roadways. The natural vegetation and characteristics of the areas 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. 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 vegetation thinning 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 along evacuation routes. The proposed project would not result in the loss of forest land, nor would it convert forestry land to non-forestry use. Adverse effects on agriculture and forestry resources would not occur.

Air Quality

Question	Yes	No
Relevant to the project?	☒	☐

Potential for significant impact?	☐	☒

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

Biological Resources

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

Biological database searches for the vicinity of the fuel reduction zones were conducted (CDFW, 2022; CNPS, 2022). Of the species identified during the database search, species were determined to have potential to occur within the work areas if the species is known to occur in the vicinity of the sites and if the sites or immediate vicinity contains suitable habitat to support these species.

Special-Status Plants and Sensitive Vegetation Communities

Riparian, wetland, or other sensitive habitats may occur along or near road edges but would not be impacted by the project activities. Serpentine soils are documented within the project area as shown in Figure 2 and therefore serpentine-associated communities therefore have the potential to be present (USDA, 2020). Several special-status plant species have a moderate potential to occur along certain small portions of the overall evacuation route treatment area (refer to Table 1 and Figure 3 for information specified by neighborhood and Figure 4 for locations of known occurrences in relation to the proposed project).

Vegetation trimming and removal would be conducted by hand to remove fuel loading and allow safe ingress and egress. Workers would receive training from a qualified professional prior to beginning the vegetation treatments in areas where sensitive biological resources could occur. Training would include identification of special-status plant species and sensitive communities for avoidance (ET-1). The training for this proposed project would involve identification of Napa false indigo, Point Reyes salty bird’s-beak, Tiburon buckwheat, congested-headed hayfield tarplant, Marin western flax, Santa Cruz tarplant, and Marin knotweed for avoidance if encountered along the roadways.

The vegetation trimming and removal would generally focus on removing invasive and fire-hazardous species, leaving native species in place (IP-4) and the types of activities generally would not disrupt the seed banks of these species. Workers would clean equipment and handle vegetation to avoid spreading invasive species and plant pathogens when moving between different project locations (IP-1, IP-2, IP-3).

The blooming season for the specified perennial and annual herbaceous special-status plants with a moderate potential to occur ranges from April to November, depending on the individual plant species. The blooming season for the serpentine special-status plants with a moderate potential to occur ranges from April to September. Initial treatment is anticipated to begin in Fall 2022 and would occur during the blooming season for some non-serpentine associated species, however the scope of the vegetation thinning and cutting activities is typically limited to 10 feet

from the roadway. Roadways have been studied to act as vectors for invasive plant species, with traffic volume as a key variable related to dispersal (Lemke, Buchholz, Kowarik, Starfinger, & Lippe, 2021). Roadways have been found by most studies to be beneficial for non-native and invasive plant species, particularly in forested or grassland areas (Lazaro-Lobo & Ervin, 2019). Appropriate management of roadsides has been found to support high levels of biodiversity and reduce effects such as the spread of invasive species (Lazaro-Lobo & Ervin, 2019). The vegetation trimming and removal would generally focus on removing invasive and fire-hazardous species, leaving native species in place (IP-4) and the types of activities generally would not disrupt the seed banks of these species. A reduction in roadside invasive plant species may be beneficial for native plants including the special-status species with a potential to occur in the area. Special-status shrub and tree species would be specifically called out in the training for avoidance of any species that look similar (e.g., manzanita) unless a survey is conducted to distinguish species (ET-1). The relatively narrow scope of the proposed treatment activities limits the potential to encounter and impact a significant number of any one special-status species. Therefore, non-serpentine special-status plant species would have a low potential to be significantly impacted by treatment within 10 feet of roadways. Due to the relatively limited availability of serpentine habitats within which endemic special-status plants can grow, the species of rare plants associated with serpentine soils that have a moderate potential to occur based on a review and professional judgement, and activities that could damage the flowering plant species would occur during the blooming season, surveys would be conducted prior to work (ES-1). If treatment that could damage the flowering body or seeds of plant species with a moderate potential to occur, is proposed beyond 10 feet from roadways in areas with suitable habitat and during the blooming season, surveys would be conducted prior to treatment (ES-1). Any individuals found during the pre-work surveys would be flagged for avoidance or modified methods. All sensitive plant species have a low to no potential to be impacted by vegetation removal activities with the worker training and surveys for avoidance or modified methods, when needed, as shown in Table 1. Significant impacts on native vegetation communities and special-status plants species would not occur.

Special-Status Wildlife

The pallid bat, western pond turtle, San Pablo song sparrow, foothill yellow-legged frog, California red-legged frog, and northern spotted owl have a moderate potential to occur within certain portions of the overall evacuation route treatment area (refer to Table 1 for information with specifics on general neighborhood and Figure 5 and Figure 6 for locations of known occurrences in relation to the proposed project). Workers would be trained to identify and avoid the types of wildlife species with a potential to occur in the work areas (ET-1).

Migratory birds and birds of prey have a potential to nest or forage within the project site, and are protected under the Migratory Bird Treaty Act and Sections 3503 and 3503.5 of the California Fish and Game Code. Project 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).

Figure 2 Areas of Modeled Serpentine Soils

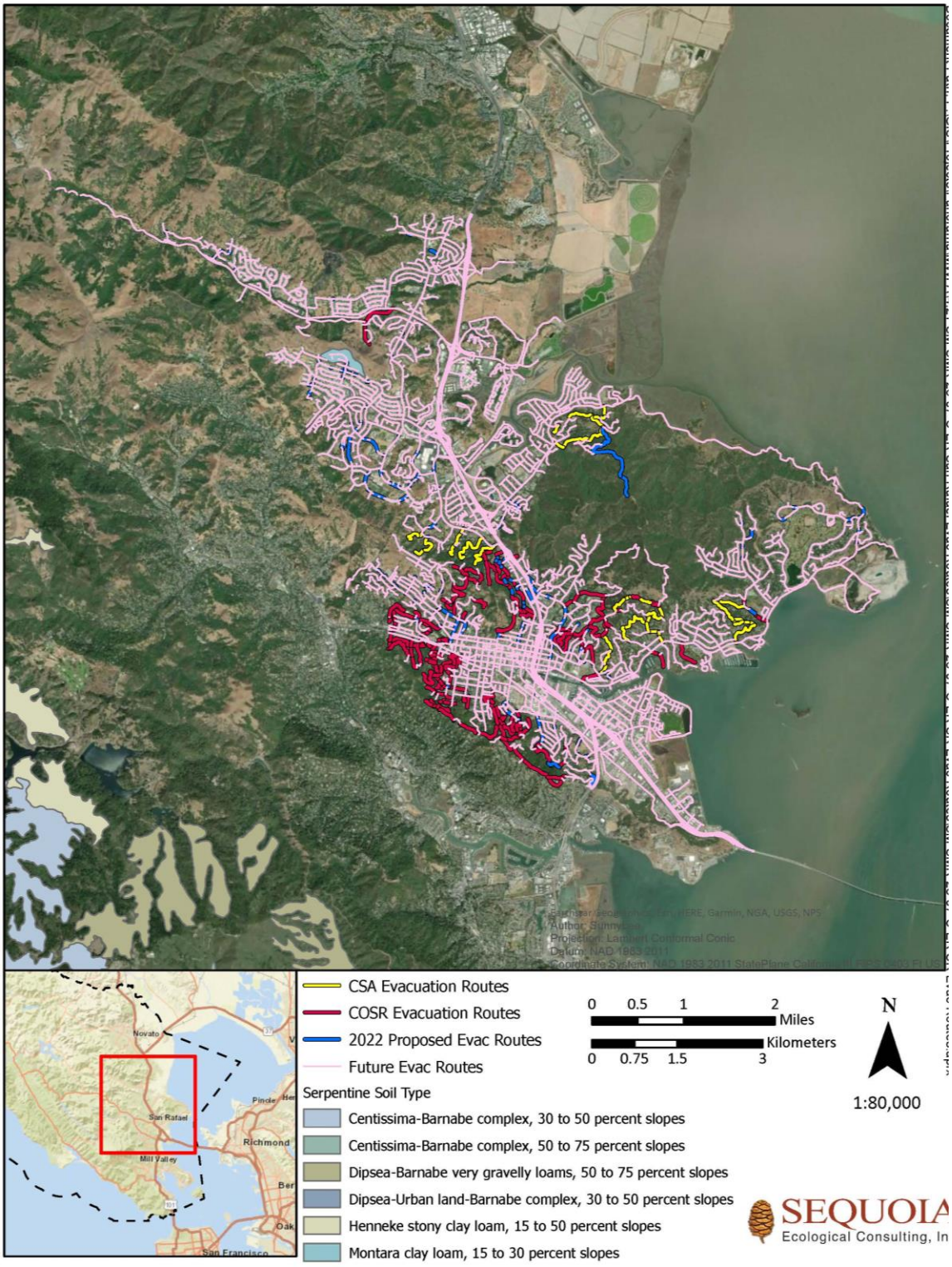
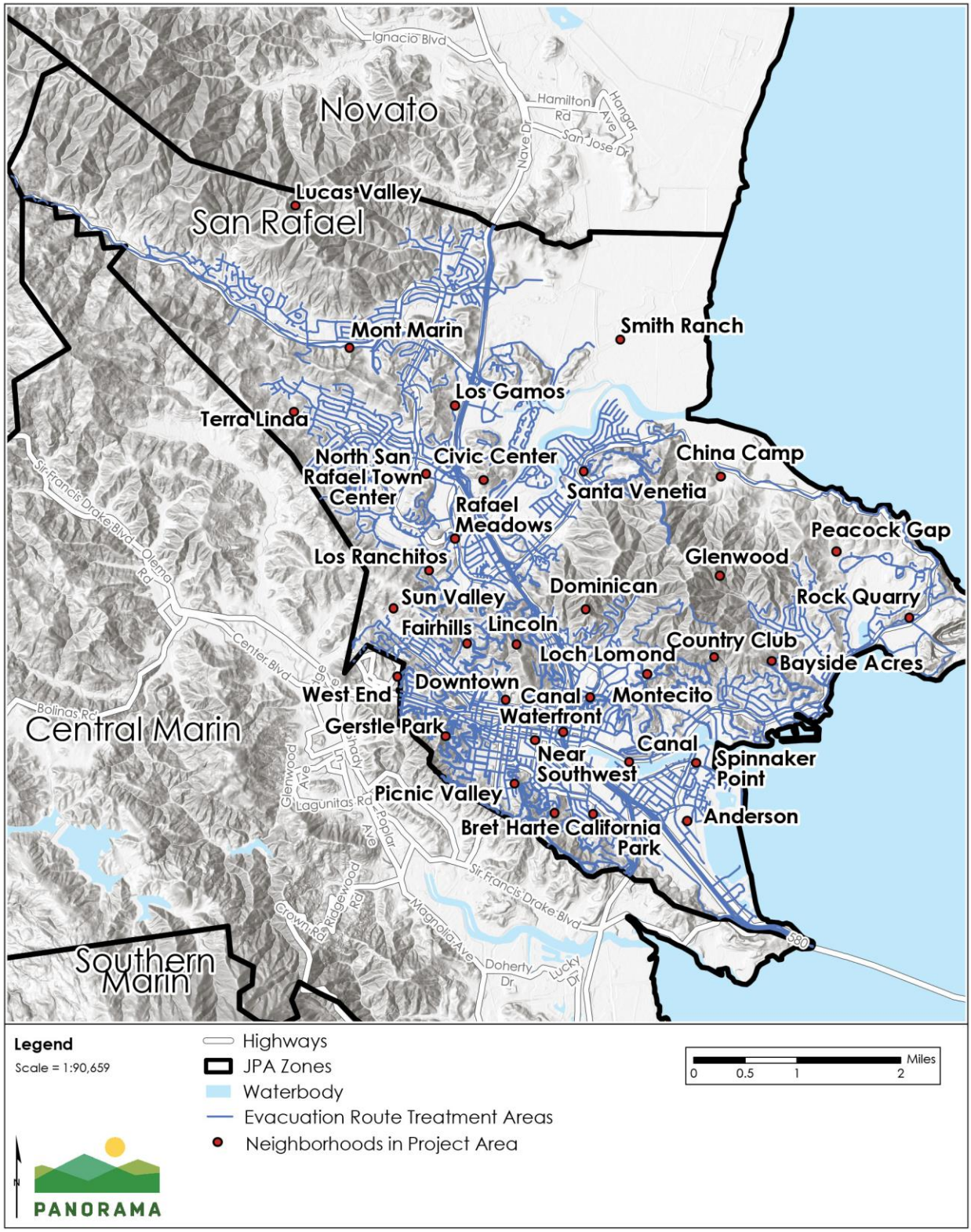


Figure 3 Neighborhoods in Project Area



Figures omitted to protect special-status wildlife and plant species

The western pond turtle, foothill yellow-legged frog, and California red-legged frog have a moderate potential to occur within specific portions of the evacuation route treatment area in areas where suitable habitat is nearby. Wetland and streams that may provide habitat for these species would be avoided by project activities. Workers would be trained to identify the western pond turtle, foothill yellow-legged frog, and California red-legged frog for avoidance (ET-1).

Critical habitat for northern spotted owl is within three miles of the evacuation route treatment area. Several activity centers and nests are documented within 0.5 mile or adjacent to some of the proposed evacuation route treatment areas. As such, there is a moderate potential for northern spotted owl to occur within specific portions of the evacuation route treatment areas (refer to Table 1 for general locations). Vegetation treatment and removal would target invasive, non-native, and fire-hazardous vegetation and accumulative dead biomass along the fuel break. Small trees, 8 inches DBH and smaller, would be removed, as needed, as part of clearance for horizontal spacing. This vegetation would grow back and be retreated as needed. Vegetation treatment would typically occur within 10 feet, and rarely up to 30 feet from roadways. Northern spotted owl typically prefer dense canopy closure of mature and old-growth trees with logs, standing snags, and live trees with broken tops. Most of the Marin County owls are known to use younger forests than those further north in California (MMWD, 2019). The owls also require open space in the understory or less dense habitats to allow flight under the canopy to forage (Gutierrez, Franklin, & Lahaye, 2020). 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 high-impact work was to occur during the nesting season, surveys would be conducted to determine if a breeding pair were located within 0.25 mile of the work area, and treatments 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 in areas with suitable Northern spotted owl habitat based on forestry practices, a qualified northern spotted owl biologist would be consulted (NSO-3). Given the work would be focused on removal of hazardous fuels near structures and adjacent to roadways and structures and the relatively low intensity of the vegetation thinning activities, the work would not be considered major habitat alteration for northern spotted owls.

Wetlands

Streams intersect or occur adjacent to the project work areas as shown in Figure 7 (USFWS, 2022). Streams would be avoided by project activities. Seasonal wetlands may be encountered within the roadsides of the proposed project. Training would ensure that workers conducting manual and mechanical activities to avoid wetlands (ET-1). Significant impacts on wetlands would not occur.

Figure 6 Northern Spotted Owl Observations

Figure omitted to protect northern spotted owl nest locations

Figure 7 Wetlands and Waterways

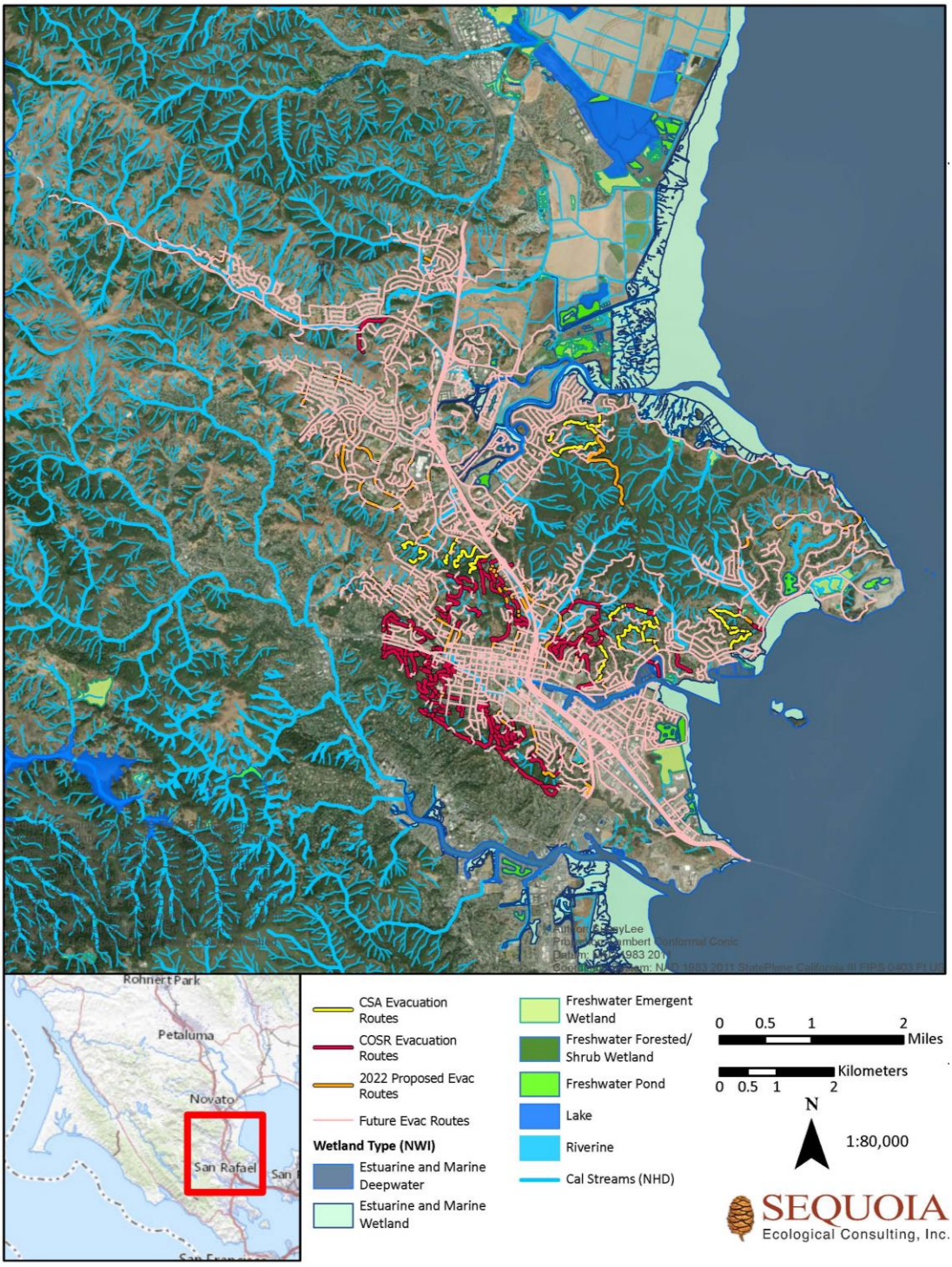


Table 1 Special-Status Species with Potential to Occur in the Project Vicinity

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Sensitive Plants					
Amorpha californica var. napensis	Napa false indigo	CNPS 1B.2	Wetland, riparian woodland	Moderate in the Anderson, Canal, Spinnaker, Canal Waterfront, Montecito, Loch Lomond, Dominican, Downtown, Near Southeast, Glenwood, and Lincoln neighborhoods; potentially suitable habitat within the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes.	Low; wetland and flowing waterways will be avoided and species will be included in environmental training to ensure avoidance (ET-1); species is unlikely to occur in large numbers directly along roadsides
Amsinckia lunaris	bent-flowered fiddleneck	CNPS 1B.2	Grassland, serpentine, gravelly slopes	Low; potentially suitable habitat within the vicinity of project area. Known occurrence is outside of project area, but within 3-mile buffer.	Low; can be identified and avoided with training (ET-1).
Arctostaphylos montana ssp. montana	Mt. Tamalpais manzanita	CNPS 1B.3	Chaparral, valley grassland	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of project area, but within 3-mile buffer.	Low; manzanitas can be identified and avoided with training (ET-1).
Arctostaphylos virgata	Marin manzanita	CNPS 1B.2	Closed-cone pine forest, redwood forest, mixed evergreen forest, chaparral	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of project area, but within 3-mile buffer.	Low; can be identified and avoided with training (ET-1).
Calochortus tiburonensis	Tiburon mariposa-lily	FT, CT, CNPS 1B.1	Serpentine grassland	Low; potentially suitable habitat within the vicinity of project area. Known occurrence is outside of	Low; species can be identified and avoided with training (ET-1); if work that could damage

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				project area, but within 3-mile buffer.	flowering body occurs during blooming season, surveys will occur (ES-1).
Castilleja affinis var. neglecta	Tiburon paintbrush	FE, CT, CNPS 1B.2	Serpentine grassland	Low; potentially suitable habitat within the vicinity of project area. Known occurrence is outside of project area, but within 3-mile buffer.	Low; species can be identified and avoided with training (ET-1); if work that could damage flowering body occurs during blooming season, surveys will occur (ES-1).
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	CNPS 1B.2	Coastal salt marsh	Moderate in the Loch Lomond, Montecito, Canal Waterfront, Canal, Spinnaker Point, Bayside Acres, and Glenwood neighborhoods; potentially suitable habitat within the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes.	Low; wetland and flowing waterways will be avoided and species can be identified and avoided with training (ET-1). .
Entosthodon kochii	Koch's cord moss	CNPS 1B.3	River banks on newly exposed soil	Low; potentially suitable habitat within the vicinity of project area. Known occurrence is outside of project area, but within 3-mile buffer.	Low; bryophytes are unlikely to be impacted by project activities.
Eriogonum luteolum var. caninum	Tiburon buckwheat	CNPS 1B.2	Chaparral, coastal prairie, valley grassland, serpentine endemic	Moderate in the Lucas Valley, Mont Marin, Terra Linda, Santa Venetia, China Camp, and Glenwood neighborhoods; potentially suitable habitat within the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes.	Low; species can be identified and avoided with training (ET-1); if work that could damage flowering body occurs during blooming season, surveys will occur (ES-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	CNPS 1B.2	Northern coastal scrub, valley grassland	Moderate in the Lucas Valley, Mont Marin, and Terra Linda neighborhoods; potentially suitable habitat within the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes.	Low; species can be identified and avoided with training (ET-1).
Hesperolinon congestum	Marin western flax	FT, CT, CNPS 1B.1	Serpentine, grassland	Moderate in the Anderson, Canal, Spinnaker, Canal Waterfront, Montecito, Loch Lomond, Dominican, Downtown, Near Southeast, Glenwood, and Lincoln neighborhoods; potentially suitable habitat within the project area, and known occurrences overlap some of the project area for future routes	Low; species can be identified and avoided with training (ET-1); if work that could damage flowering body occurs during blooming season, surveys will occur (ES-1).
Holocarpha macradenia	Santa Cruz tarplant	FT, CE, CNPS 1B.1	Grassy areas, clay soil	Moderate in the West End and Gerstle Park neighborhoods; potentially suitable habitat within the project area, and there is a known occurrence within work area, including the approved routes, proposed routes and future routes.	Low; species can be identified and avoided with training (ET-1).
Kopsiopsis hookeri	small groundcone	CNPS 2B.3	Open woodland, mixed conifer forest	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of project area, but within 3-mile buffer.	Low; can be identified and avoided with training (ET-1).
Lessingia micradenia var. micradenia	Tamalpais lessingia	CNPS 1B.2	Thin, gravelly soil of serpentine	Low; suitable habitat is not found in the vicinity of the project area. Multiple known occurrences found	Low; can be identified and avoided with training (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			outcrops, roadcuts	in serpentine soils within 3 miles of work area.	
Pleuropogon hooverianus	North Coast semaphore grass	CT, CNPS 1B.1	Meadows, vernal-pools	Low; potentially suitable habitat within the vicinity of project area. Known occurrence is outside of project area, but within 3-mile buffer.	Low; can be identified and avoided with training (ET-1). Work in meadows and vernal pools will be avoided.
Polygonum marinense	Marin knotweed	CNPS 3.1	Coastal salt, brackish marshes, swamps	Moderate in the China Camp and Peacock Gap neighborhoods; potentially suitable habitat within the project area, and known occurrences are identified near project area for future routes.	Low; wetland and flowing waterways will be avoided and species can be identified and avoided with training (ET-1).
Quercus parvula var. tamalpaisensis	Tamalpais oak	CNPS 1B.3	Understory conifer woodland	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of project area, but within 3-mile buffer.	Low; species can be identified and avoided with training (ET-1).
Sidalcea hickmanii ssp. Viridis	Marin checkerbloom	CNPS 1B.1	Dry ridges near coast, serpentine	Low; suitable habitat is not found in the vicinity of the project area. Multiple known occurrences found in serpentine soils within 3 miles of work area.	Low; can be identified and avoided with training (ET-1).
Streptanthus glandulosus ssp. Pulchellus	Mt. Tamalpais bristly jewelflower	CNPS 1B.2	Chaparral, valley grassland	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of project area, but within 3-mile buffer.	Low; can be identified and avoided with training (ET-1).
Triquetrella californica	coastal triquetrella	CNPS 1B.2	Roadsides, hillsides, rocky slopes, fields, chaparral; low to	Low; potentially suitable habitat within the vicinity of project area. Known occurrences are outside of	Low; bryophytes are unlikely to be impacted by project activities.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
			moderate elevations	project area, but within 3-mile buffer.	
Sensitive Wildlife					
Antrozous pallidus	pallid bat	SSC	Roosts in large diameter trees and abandoned buildings	Moderate; potentially suitable habitat throughout the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes (Anderson, Canal, Spinnaker, Canal Waterfront, Montecito, Loch Lomond, Dominican, Downtown, Near Southeast, Glenwood, and Lincoln neighborhoods).	Low; work will occur outside the bat maternity roosting period or surveys conducted and roosting trees avoided. Bat identification and roosting avoidance will be included in the environmental training for crews (RB-1, RB-2, RB-3, RB-4, ET-1).
Athene cunicularia	burrowing owl	SSC	Nests in grassland burrows	Low; some potentially suitable habitat on the northern portion of the “Future” evacuation routes near southern Novato; one occurrence is documented within 1 mile of project area.	Low; work would occur outside nesting season or surveys will be conducted and active burrows avoided (NB-1, NB-2, NB-3, NB-4). Species will be included in environmental training to ensure avoidance (ET-1).
Brachyramphus marmoratus	marbled murrelet	FT, CE	Breeds inland on mountains near coast	None; no records for MAMU within 3 miles of project area, critical habitat over 3 miles away from project area	None
Charadrius nivosus	western snowy plover	FT	Nests in coastal dunes	Low; utilizes coastal dunes for breeding and foraging habitat. This habitat is excluded from the project area by design.	None

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Dicamptodon ensatus	California giant salamander	SSC	wet coastal forests, such as coastal redwoods, in or near clear, cold permanent and semi-permanent streams and seepages	Low; some potentially suitable habitat within 1 mile of project area. Species is highly associated with streams in wet coastal forests. This habitat type is infrequent in the project footprint which hugs open roads, and riparian areas will be avoided within the project area.	Low; suitable breeding habitat would be avoided by project design. Species will be included in environmental training to ensure avoidance (ET-1).
Emys marmorata	western pond turtle	SSC	Freshwater ponds and streams	Moderate; known occurrences overlap some of the project area for future routes (Loch Lomond, Montecito, Canal Waterfront, Canal, Spinnaker Point, Bayside Acres, and Glenwood neighborhoods). Suitable habitat (wetlands) will be excluded from the project area. Species is associated with streams and ponds and may be found in nearby forests and woodlands near project area	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance (ET-1).
Eucyclogobius newberryi	tidewater goby	FE	Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Laterallus jamaicensis coturniculus	California black rail	CT, FP	Marshes and wetland edges	Low; potentially suitable habitat adjacent to the project area, and there are known occurrences next to the work area, including the approved routes, proposed routes and future routes. Cryptic species not typically observed outside marsh habitat.	Low; not likely to depart habitat; suitable breeding habitat would be avoided. Species and its habitat will be included in environmental training to ensure avoidance (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Lavinia symmetricus ssp. 2	Tomales roach	SSC	Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Melospiza melodia samuelis	San Pablo song sparrow	SSC	Marshes and wetland edges	Moderate; potentially suitable habitat within and adjacent to the project area, and there are known occurrences within work area, including the approved routes, proposed routes and future routes (Loch Lomond, Montecito, Canal Waterfront, Canal, Spinnaker Point, Bayside Acres, Lucas Valley, Smith Ranch, Los Gamos, and Glenwood neighborhoods).	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance (ET-1).
Oncorhynchus kisutch pop. 4	coho salmon – central California coast ESU	FE, CE	Anadromous streams, Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Oncorhynchus mykiss irideus pop. 8	steelhead – central California coast DPS	FT	Anadromous streams, Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Rallus obsoletus	California Ridgway's rail	FE, CE, FP	Saltwater marshes, freshwater marshes, and mangrove swamps	Low; potentially suitable habitat adjacent to the project area, and there are known occurrences next to the work area, including the approved routes, proposed routes and future routes. Cryptic species not typically observed outside marsh habitat.	Low; not likely to depart habitat; suitable breeding habitat would be avoided. Species and its habitat will be included in environmental training to ensure avoidance (ET-1).

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Rana boylii	foothill yellow-legged frog	CE, SSC	Rocky streams in a variety of habitats, including habitats such as valley foothill hardwood, valley-foothill riparian, coastal scrub, mixed conifer, mixed chaparral, and wet meadows	Moderate; known occurrences overlap some of the project area for future routes (Lucas Valley and West End neighborhoods). Suitable habitat (wetlands) will be excluded from the project area. Species is associated with rocky streams and ponds and may be found in nearby forests and woodlands near project area	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance (ET-1).
Rana draytonii	California red-legged frog	FT, SSC	Breeds in ponds/slow moving streams, may use grassland and oak woodland for dispersal and foraging	Moderate; known occurrences overlap some of the project area for future routes (China Camp, Rock Quarry, and Peacock Gap neighborhoods). Suitable habitat (wetlands) will be excluded from the project area. Frogs may move upland away from aquatic features during wet weather.	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance (ET-1).
Reithrodontomys raviventris	salt-marsh harvest mouse	FE, CE, FP	Marshes and wetland edges	Low; known occurrences overlap some of the project area for future routes. Suitable habitat (marsh and wetlands) will be excluded from the project area.	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance (ET-1).
Spirinchus thaleichthys	longfin smelt	FC, ST	Aquatic, wetland margins	None; aquatic species. Aquatic areas are excluded from the project footprint.	None

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Strix occidentalis caurina	Northern spotted owl	FT, CT	Dense canopies of mature and old-growth forests. Nests in tree hollows	Moderate; critical habitat found within 3 miles of work area and activity and known nesting found within 0.5 mile of or adjacent to work areas (China Camp, Peacock Gap, Glenwood, West End, and Gerstle Park neighborhoods).	Low; work will occur outside the nesting season or surveys conducted and found nests avoided. Identification and nest avoidance will be included in the environmental training for crews (ET-1, NB-1, NB-2, NB-3, NB-4).
Thaleichthys pacificus	eulachon	FT	Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None

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, 2022; CNPS, 2022; CDFG, 2003; Hickman, 1993; Stebbins, 2003)

Cultural Resources and Tribal Cultural Resources[10]

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

Equipment and vehicles for the fuel reduction activities would operate from existing roadways. No intense ground disturbing activities (e.g., discing) would occur. While some hand pulling of invasive species may occur, the potential to disturb cultural resources is generally low since this work results in little ground disturbance and no heavy equipment. Workers would participate in a cultural training prior to project implementation (CUL-1) and should a previously unidentified cultural resource be discovered, work would halt in the area and the resource fully avoided conducted (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). Significant impacts on cultural resources and human remains would not occur.

Energy

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

The vehicles and equipment conducting the fuel reduction activities along roadways would consume energy, including gas, diesel, and motor oil. Vehicle engines and fuel used during implementation of the proposed project would comply with State and local energy reduction and efficiency requirements. The use of fuel to implement the proposed project would be minimal and the proposed fuel consumption would, additionally, be considered beneficial and not wasteful given the positive outcome of the work to improve routes for evacuation in the San Rafael Zone. Implementation of vegetation fuel reduction activities would not cause a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Geology and Soils

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

Vehicle travel and access as well as operation of equipment would occur along the existing paved roads. After the vegetation thinning is 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. Serpentine soils, which are typically vulnerable to erosion, are documented within the project area (USDA, 2020). While some soil types present in work areas may be more prone to erosion than others,

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

vegetation removal and cutting that maintain at least 70 percent of groundcover would not result in substantial erosion (Lang & McDonald, 2005). Erosion control devices would be installed (GEO-1) in areas where erosion could occur. 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 thinning activities would involve manual and mechanical vegetation removal. Use of vehicles and equipment during these activities and vehicle travel to treatment areas would generate some GHG. Project activities would not generate significant quantities of GHG emissions[11]. These processes are not quantified but would fluctuate during initial treatment and future maintenance. Due to the current higher fuel loads, it is anticipated that a net release of carbon from removal of vegetation could occur, 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 while ingress and egress is improved. 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.

Hydrology and Water Quality

Question	Yes	No
Relevant to the project?	☒	☐

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

Potential for significant impact?	☐	☒

Work areas would be accessed using existing paved roads adjacent to the work areas. Riparian woodlands may be encountered, any vegetation trimming, or thinning would be conducted by hand and alteration to, and deposition of debris avoided within the bed, channel, or bank of a waterway (SH-1). Some hand pulling could occur along roadways. The majority of the proposed manual and mechanical vegetation removal 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). Erosion and subsequent sedimentation of waterways would not occur. Significant water quality impacts would not occur.

Land Use and Planning

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

Implementation of treatment activities would not involve any new development or changes to land uses that could physically divide a community. The proposed project is consistent with San Rafael Municipal Code Chapter 4.12: Wildland Urban Interface – Vegetation Management Standards, the objectives of the Marin Wildfire Prevention Authority, the Marin County Community Wildfire Protection Plan (2020), Marin County and City of San Rafael Fire Codes, and the City of San Rafael Wildfire Prevention and Protection Plan (2020). All activities conducted would comply with local land use regulations and policies.

Mineral Resources

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

Fuel reduction activities would not result in the loss of availability of a known mineral resource because the work would occur along the evacuation routes and would not permanently alter any features. Vegetation clearance is intended to improve evacuation and ingress/egress 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 fuel reduction activities would occur on weekdays between 8:00 am and 5:00 pm. This timeframe would conform with the appropriate noise ordinance (Marin County Noise Ordinance § 6.70.030; City of San Rafael Noise Ordinance § 8.13.050). The noise ordinances limits construction activities to Monday through Friday 7:00 am to 6:00 pm and Saturday from 9:00 am to 5:00 pm., which the project activities would conform with. Work would progress along roadways, limiting noise in any one location to a few hours. Most recreationalists or

motorists are only in a single area for a short duration and would be able to move away from noisy areas with little impact on their experience. 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 evacuation routes. Measures to minimize noise disruption to nearby neighbors would be implemented, as needed (NOI-1). Exceedances of local noise standards would not occur (given the short duration of noise generation in any one location and existing noise levels) and significant noise impacts would not occur.

Population and Housing

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

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

Public Services

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

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

Recreation

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

Treatments would occur along roadways within recreational areas throughout the San Rafael Zone, including China Camp State Park, City of San Rafael open spaces, and the Harry A. Barbier Memorial Park. Fuel reduction activities would be performed within 10 feet of roadways, generally, and up to 30 feet from road edge in some places. Treatment areas and trails that are accessible to the public may be closed for short durations during fuel reduction activities. Some of the work areas are located near trails or fire roads where recreationalists could be located. Recreational trails would be unavailable if needed or flagged off during vegetation management activities, the treatments would be for a short duration in one area, typically for only a few hours to a few days. Ample recreational opportunities are available within and surrounding the San Rafael Zone (e.g., MCOSD open space preserves) that the few displaced recreationalists could use if discrete areas are unavailable due to vegetation management 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?	☐	☒

Multiple crews could conduct vegetation management activities along roadways in a single day. Crew of up to 8 workers would likely be working at a single work area. An estimated 4 to 20 daily one-way vehicle trips would occur, which would not exceed the threshold of 110 trips per day[12]. The VMT associated with implementation of the proposed project would not conflict with State CEQA Guidelines section 15064.3, subdivision (b). Chipping could be conducted as a method of vegetative debris disposal. Chipping would be performed away from roadways and would not be a hazard to passing motorists. No significant traffic impacts would occur.

Utilities and Service Systems

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

Biomass generated from vegetation removal activities may be processed using a chipper. As the vegetation grows back and follow up maintenance is conducted in future years, additional vegetative materials would be chipped and trucked away. Materials would be trucked to West Marin Compost, Marin Resource Recovery Center, or Green Waste Recycle Yard which have a permitted capacity of 3,870 tons per day, or other appropriate processing facility, and would be able to accept the chipped material (CalRecycle, 2022). No impact related to utilities and service systems would occur.

Wildfire

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

The fuel reduction zone is within the State Responsibility Area (SRA) and Local Responsibility Area (LRA) in moderate and high fire hazard severity zones (CAL FIRE, 2007/2008). 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. Fuel reduction crews would maintain fire suppression

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

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

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

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

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

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

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

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

Flores, A. (2020, July 2). Environmental Planner BAAQMD. (C. Gilleran, Interviewer)

Gutierrez, R. J., Franklin, A. B., & Lahaye, W. S. (2020). Spotted Owl (Strix occidentalis), version 1.0. *In Birds of the World (A. F. Poole and F. B. Gill, Editors).* Cornell Lab of Ornithology, Ithaca, NY, USA.

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

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

Lazaro-Lobo, A., & Ervin, G. N. (2019). A global examination on the differential impacts of roadsides on native vs. exotic and weedy plant species. *Global Ecology and Conservation*.

Lemke, A., Buchholz, S., Kowarik, I., Starfinger, U., & Lippe, M. v. (2021). Interaction of traffic intensity and habitat features shape invasion dynamics of an invasive alien species (Ambrosia artemisiifolia) in a regional road network. *NeoBiota*, 155-175.

MMWD. (2019). *Final Program Environmental Impact Report for the Biodiversity, Fire, and Fuels Integrated Plan*. Retrieved from State Clearinghouse.

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

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

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

USDA. (2020, December 1). Gridded National Soil Survey Geographic (gNATSGO) Database for the Conterminous United States. Retrieved from https://nrcs.app.box.com/v/soils

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