Notice of Exemption

21-2021-247

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044
County Clerk County of: Marin
Marin Civic Center
3501 Civic Center Dr., Suite 234,
San Rafael, CA 94903

From (Public Agency):
Marin Wildfire Prevention Authority (MWPA)
28 Liberty Ship Way
Sausalito, CA 94965

FILED
NOV 23 2021
SHELLY SCOTT
MARIN COUNTY CLERK
BY: I. GILARDI, Deputy

Project Title: Southern Marin Zone Ridgecrest Fuel Reduction Project (also known as Throckmorton Ridge Vegetation Management Zone)

Project Applicant: Marin Wildfire Prevention Authority (MWPA)

Project Location – Specific: Vegetation management within Mount Tamalpais State Park

Project Location – City:
Southern Marin County

Project Location – County:
Marin County

Description of Nature, Purpose and Beneficiaries of Project:
The purpose of the project is to reduce fuels and conduct vegetation modification in Mount Tamalpais State Park to reduce wildfire hazards by maintaining existing grassland, chapparal and scrubland habitats and mixed evergreen forests and removing woody fuels in these areas below the ridge within an existing vegetation management zone that has been treated repeatedly over at least the last 20 years. The project is intended to create and maintain a mosaic of vegetation types with a significantly reduced fire threat to the ridgetop community and Mill Valley.

Name of Public Agency Approving Project: MWPA

Name of Person or Agency Carrying Out Project: Marin County Fire Department/ California Department of Parks and Recreation

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 California Department of Parks and Recreation (State Parks) developed and approved the Boundary Vegetation Modification and Defensible Space Work Project Notice of Exemption (NOE; State Clearinghouse # 2020020416) that allows entities to conduct vegetation modification

POSTED 11/23/21 TO 12/23/21

and defensible space activities in Mount Tamalpais State Park within 130 feet of structures with issuance of a Right-of-Entry Permit as well as allowing maintenance and limited expansion of existing vegetation modification zones including the Throckmorton Ridge Vegetation Management zone[1]. The State of California Department of Parks and Recreation (State Parks) determined that the Throckmorton Ridge Vegetation Management Zone (also known as the Southern Marin Zone Ridgecrest Fuel Reduction Project) (project) is addressed by the existing NOE. The State Parks NOE and resource analyses are incorporated by reference into this NOE.

The project is categorically exempt under California Environmental Quality Act (CEQA) Guidelines Sections 15304, Class 4 for Minor Alterations to Land and Section 15301, Class 1 Existing Facilities. A Class 4 exempt project consists of minor public or private alterations in the condition of land, water, and/or vegetation that 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 project would involve vegetation reduction activities through vegetation clearance and removal around the residential community within open space areas within an existing vegetation management zone that has been treated repeatedly over at least the last 20 years. The project area is identified as a high priority project in the Marin County Community Wildfire Protection Plan[2] as the area is a strategically important area separating State and Federal lands (Muir Woods National Monument) from a heavily urban area. State Parks and Marin County Fire Department (MCFD) have determined that vegetation thinning and removal in this area is needed due to the extra hazardous conditions in the work areas. The buildup of fire hazardous vegetation in certain portions of the open areas, number of homes in the ridgetop and Mill Valley communities adjacent to State Parks land and intensity of uses in these adjacent areas, such as roads and trails, increases the likelihood of anthropogenic ignitions in these areas of designated as moderate to very high fire hazard severity.[3] The scope of the project is consistent with a minor alteration to the condition of the vegetation and maintenance of the portion of the existing fuel reduction zone on State Parks land shown in Figure 1.

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

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[1] State Parks. (2020, February 20). Boundary Vegetation Modification and Defensible Space Work Project Notice of Exemption. *State Clearinghouse # 2020020416.*

[2] Marin County. (2020, December). Marin County Community Wildfire Protection Plan

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

Lead Agency Contact Person: Mark Brown

Area Code/Telephone/Extension: 415.246.0280

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☐

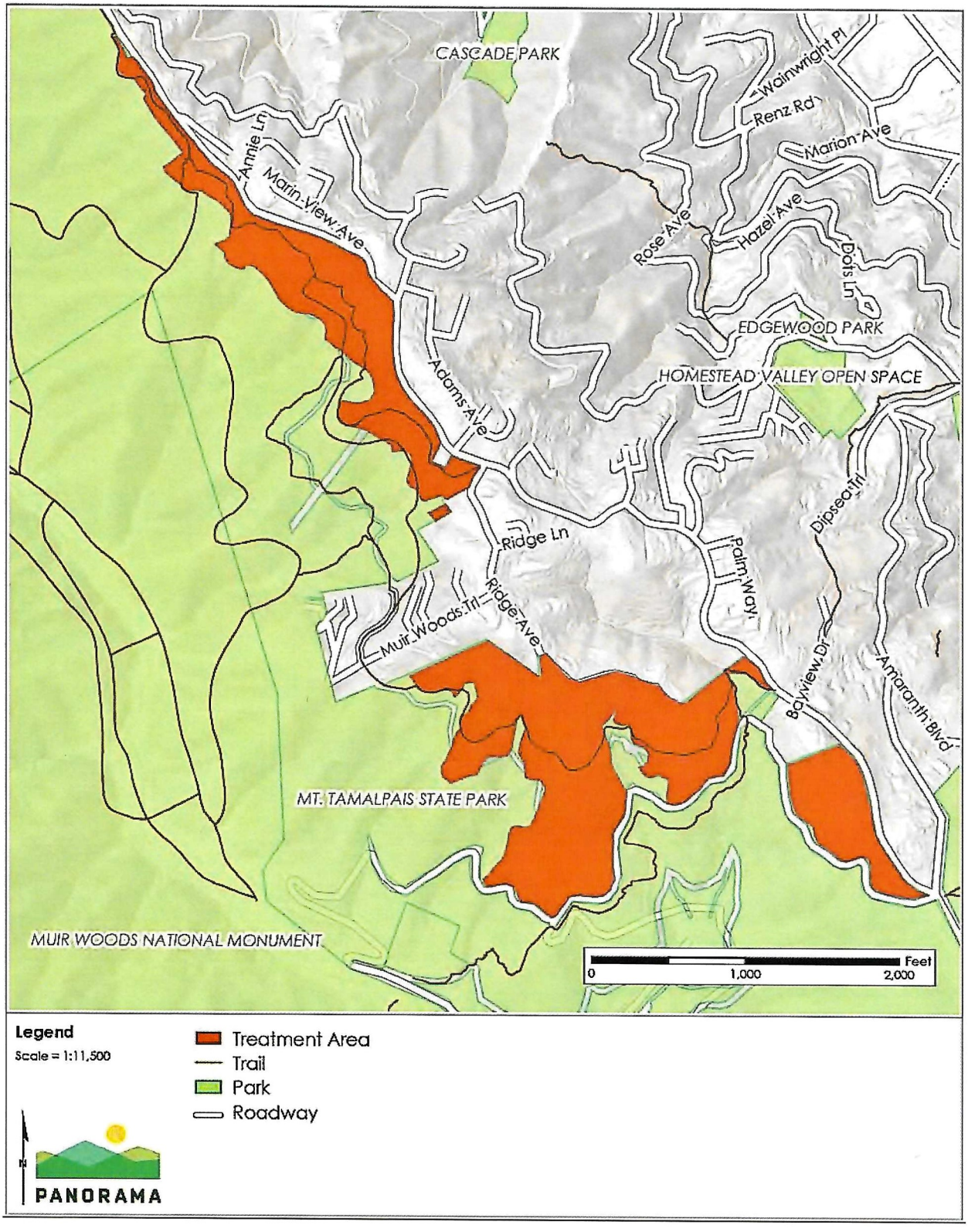
Signature: _____ Date: 11/22/2021 Title: Executive Officer

☐ 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 Ridgecrest Treatment Areas



MARIN WILDFIRE PREVENTION AUTHORITY

California Environmental Quality Act Categorical Exemption Determination Memorandum

Date: November 18, 2021

Project: Southern Marin Zone Ridgecrest Fuel Reduction Project (also known as Throckmorton Ridge Vegetation Management Zone)

Categorical Exemption Summary

The California Department of Parks and Recreation (State Parks) developed and approved the Boundary Vegetation Modification and Defensible Space Work Project Notice of Exemption (2020 NOE; State Clearinghouse # 2020020416) that allows entities to conduct vegetation modification and defensible space activities in Mount Tamalpais State Park within 130 feet of structures with issuance of a Right-of-Entry Permit as well as allowing maintenance and limited expansion of existing vegetation modification zones including the Throckmorton Ridge Vegetation Management zone (State Parks, 2020). The State of California Department of Parks and Recreation (State Parks) determined that the Throckmorton Ridge Vegetation Management Zone (also known as the Southern Marin Zone Ridgecrest Fuel Reduction Project) (project) is addressed by the existing 2020 NOE.

The Marin Wildfire Prevention Authority (MWPA) as the responsible agency concurs with State Parks that the project is categorically exempt under the California Environmental Quality Act (CEQA) Guidelines Section 15304, Class 4 for Minor Alterations to Land and further determines that the exemption in Section 15301, Class 1, for Existing Facilities also applies to the project. A Class 4 exempt project consists of minor public or private alterations in the condition of land, water, and/or vegetation that 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 project would involve vegetation reduction activities through vegetation clearance and removal around the residential community within open space areas within an existing vegetation management zone that has been treated repeatedly over at least the last 20 years. The project area is identified as a high priority project in the Marin County Community Wildfire Protection Plan, as the area is strategically important for separating State and Federal lands (Muir Woods National Monument) from a heavily urban area (Marin County, 2020). State Parks and Marin County Fire Department (MCFD) have determined that vegetation thinning and removal in this area is needed to improve fire preparedness and maintain the significant fuels reduction investments made over at least the last 20 years within the vegetation management zone on State Parks land. Concurrent fuel reduction actions by neighboring properties are needed to maintain the fuel reduction zone and wildfire hazard reduction. The number of homes in the ridgetop and Mill Valley communities adjacent to State Parks land and intensity of uses in these adjacent areas, such as roads and trails, increases the likelihood of anthropogenic ignitions in these areas. The areas are designated as moderate to very high fire hazard severity (CAL FIRE, 2007/2008). The scope of the project is consistent with a minor alteration to the condition of the vegetation and maintenance of the portion of the existing fuel reduction zone on State Parks land shown in Figure 1. The project would be conducted in compliance with the existing State Parks CEQA and Right-of-Entry provisions, as well as applicable

federal, State, and local regulations and under contractual provisions prohibiting work in violation of applicable regulations and plans.

The State Parks 2020 NOE and resource analyses are incorporated by reference into this document. Information regarding the project area background, purpose and need for the 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 biological and cultural environmental effects are provided below. The biological and cultural environmental effects are analyzed in detail to clearly identify the site conditions and the avoidance of effects related to this project, as the State Parks 2020 NOE is a programmatic document.

Background

This project is a collaboration between MCFD and State Parks. The project is a reentry treatment from fuels treatments completed 10 years ago along Panoramic Highway adjacent to unincorporated portions of Mill Valley. An NOE was prepared and filed by Marin County for the 2010/2011 Throckmorton Vegetation Management Zone project and included the project area on State Parks land as well as adjacent lands owned by Marin Water, and private owners. This currently proposed MWPA-funded project does not include properties outside the State Park. Vegetation treatments by State Parks with support from MCFD have been conducted in the area prior to the initial project for at least 20 years in an effort to preserve the grasslands and scrub that separate the ridgetop and community from the heavier fuel loads in the forested areas downslope. The property, owned by State Parks, is immediately below the Throckmorton Ridge community and immediately above Muir Woods National Monument. Project level vegetation management was last completed in the area by Marin County Fire over 10 years ago, fuel reduction was accomplished through brush and timber thinning and pile burning. Ongoing management of woody invasive species has been conducted in the area by State and National Park service staff and contractors. To conduct the vegetation management activities in 2010/2011 and maintenance (which occurred in the same area), the MCFD and State Parks signed a Memorandum of Understanding, dated December 8, 2010.

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 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 of the Project

The purpose of the project is to reduce fuels and conduct vegetation modification in Mount Tamalpais State Park to reduce wildfire hazards by maintaining existing grassland, chapparal and scrubland habitats and mixed evergreen forests and removing woody fuels in these areas below the ridge within an existing vegetation management zone that has been treated repeatedly over at least the last 20 years. The project is intended to create and maintain a

mosaic of vegetation types with a significantly reduced fire threat to the ridgetop community and Mill Valley.

Project Description

Treatment Area and Methods

Due to the duration of time since previous treatments, this project is similar in scope to the original treatments conducted 10 years ago. Treatments would be conducted in the 74-acre area shown in Figure 1. The treatments would focus on creating spacing amongst native coastal scrub species to reduce fire spread, removing nonnative shrubs and trees, and thinning out young Douglas fir growth to reduce ladder fuel and spotting potential. Trees that pose a threat to structures, infrastructure, or people would be removed as determined necessary. State Parks qualified biologists would select which trees should be removed. No removal of healthy, mature, scenic trees would occur.

The project would selectively reduce fuel loading of different targeted species along the ridge top and downslope onto State Parks lands. In areas dominated by shrubs, islands would be created to isolate pockets of brush to retain habitat while reducing potential residency and intensity of future wildfires as well as continuity of fuels in the area. Over the last decade, invasive Monterey pines and other species have established themselves, some of which would be removed as part of this project for forestry purposes. Douglas fir regeneration would be removed from within the initial project footprint and adjacent to roads/structures in an effort to protect the community and maintain coastal grasslands and shrublands.

Plant communities in the project area include grasslands, chapparal, coastal scrub, and mixed evergreen forest. Below are the details of the prescriptions for the different plant communities present in the project area.

Manual and mechanical hand tools would be used for vegetation trimming and removal within the fuel reduction zones. The equipment and tools that could be used include string trimmers, chainsaws, loppers, and trucks (along roadside areas). A towed chipper may be used for roadside areas, and a tracked chipper may be brought to work areas and used off-road, depending upon site conditions and resources constraints.

Annual Grassland

Mowing of grasses and forbs would be limited to within 10 feet of the edge of roadways and conducted by equipment operated from roadway prism. Small, isolated Monterey pine and Douglas-fir tree individuals (typically under 8 to 10 inches diameter at breast height [dbh]) growing in the grassland would be cut and piled for burning. Larger trees may have lower limbs removed to reduce vertical fuel continuity near roads, structures, or to further resource stewardship goals in listed habitat types. Small trees and brush near roads (within 50 feet) would be cut and piled or chipped; with chips hauled away for composting. Broom plants, echium or other invasive shrubs encountered in the grasslands would either be pulled (when soils are moist) or cut then mapped for follow-up weed treatment in subsequent years. Remaining grassland areas would be left intact except where brush piles are created and burned.

Coastal Scrub

Clumps of coyote bush that have become reestablished in previously treated areas would be thinned, retaining approximately 25 percent of existing brush cover. Resprouting of coyote

bush is expected to occur. Broom, echium, and small Monterey pine trees (typically under 8 to 10 inches dbh) encountered in scrub would be pulled or cut and mapped for follow-up treatment. Cotoneaster and acacia at the end of Ridge Avenue and on State Parks land would be cut and mapped to allow future treatment. Patches of spurge would be flagged by State Parks staff for avoidance. Cut materials would be taken off site or piled away from retained shrubs and then burned. Where dense or surrounded by heavy grasses, shrubs may be cut to a height of 2 feet and separated to twice the height of the nearest shrub. Thinning of shrubs would focus first on the removal of invasive species and then fire prone species to achieve desired fuel reduction.

Chapparal

Chamise, manzanita, toyon, and minor associated species compose the chaparral vegetation growing in a small patch between the park residence and the parking lot across Panoramic Highway from the Mountain Home Inn. Work in this area would be limited to the removal of small encroaching conifers (typically under 8 to 10 inches dbh) and removal of limbs from larger trees at the direction of State Parks staff.

Mixed Evergreen Forest

The upper, northeastern edge (adjoining grass and shrub areas) of the mixed evergreen forest (dominated by Douglas fir and California bay) within the project area would be treated to reduce vertical ladder fuels. Limbs would be pruned to a height of 10 feet above ground, understory shrubs would be thinned, and downed woody material would be collected and chipped and composted, or piled for burning.

Specific prescriptions for work in forest areas include the following:

1. Thinning overly dense stands of trees to provide crown separation if tree crown cover exceeds one third of treatment area. In mature bay, oak or fir canopies, the sub-canopy would be thinned or removed while maintaining the mature canopy. Undergrowth would be cleared following specifications below.
2. Thinning would be prioritized based upon the following parameters:
    a. Fell dead trees (Retain one wildlife snag per acre if the retained snag would not hit a structure).
    b. Remove exotic plant species or trees. Any trees deemed by State Parks cultural resources staff to be of historic significant would be retained.
    c. Fell live trees with poor vigor or poor structure.
    d. If any remaining live trees have overlapping driplines, fell the least desirable tree to be determined by State Parks representative or designee.
3. Thinning beyond these parameters, if deemed necessary by State Parks or MCFD, would prioritize the removal of more invasive tree species, such as pine and fir, as approved by the State Parks representative. Thinning would avoid native trees greater than 12 inches dbh.
4. Trees would be limbed to raise the tree crown by removing all limbs that are less than 3 inches in diameter within 10 feet of the ground surface. On slopes, the canopy line should be cut parallel to the slope.
5. Scattered areas of "jackpot" downed and dead fuel accumulations or areas with high density of dead trees within the project area that could cause torching would be removed with fine materials chipped and removed from the site, piled and burned, or

scattered at the discretion of State Park representatives. Large branches and trunks that cannot be chipped or pile burned would be cut flat to maximize soil contact.

Disposal

The prescriptions described above include specific information regarding disposal. The project would use a variety of techniques for disposal including limited scattering, chipping and hauling, or pile burning depending upon the location and condition of the work area.

Vegetative material, if chipped, would be fed through the chipper and hauled away for disposal. In more difficult to access parts of the site and further from the residences or structures, material may be cut and scattered. Scattered cut materials would be spread avoiding the base of retained trees and shrubs. Disposed debris, if removed from the site, would be hauled to Marin Resource Recovery Center.

Cut material may be pile burned depending upon the conditions of the work area. Suitable work areas are typically flat or have gentle slopes and have open areas away from tree canopies and power lines. Areas selected would be away from waterways. Typical piles would be 3 feet in diameter and 3 feet in height (e.g., approximately one cubic yard of material), but may be up to 10 feet in diameter and 6 feet in height. Multiple piles may be burned on a single day. Pile burning would be conducted in compliance with Bay Area Air Quality Management District (BAAQMD) Regulation 5 for open burning and burn day restrictions. Burning would be conducted in areas approved by State Parks staff. On average, a crew could construct 25 piles or chip an equivalent quantity of debris in a given workday. An estimated 20 to 25 cubic yards of vegetative material would be piled or disposed of per day.

Workers

A single contractor crew would consist of 4 to 8 workers at a single location. The Marin County Fire Tamalpais Crew or inmate/CAL FIRE crew would conduct treatments and would consist of 10 to 12 workers per crew.

Site Access

Work areas would be accessed via existing Panoramic Highway, Muir Woods Road, Ridge Avenue, Alice Eastwood fire road and existing trails to the maximum extent feasible. Vehicles and equipment would be staged at a Marin County Fire Facility, contractor’s yard daily or on State Parks land with permission.

Schedule and Duration

All work would be performed between Monday and Friday from 8:00 am to 5:00 pm. Work would not be performed on Red Flag days. Initial treatment activities under this project would begin in November 2021 and continue through January 2022 with a total of up to 25 workdays. Burning of the piled materials may occur in March 2022 or later. Additional fuel reduction activities may be conducted from fall 2022 to spring 2023, or sooner, depending upon resource constraints. Following the treatment implementation, the area would continue to be monitored to assess and track the effectiveness of the treatments and the potential spread of invasive plant species in treated areas. Based on the results of the ongoing monitoring, maintenance would be conducted every 5 years or as needed, as has historically been conducted, based on the monitoring in conjunction with ongoing invasive plant maintenance in the area completed by State Parks.

State Parks Impact Avoidance and Minimization Requirements

For all work, the following State Parks Impact Avoidance and Minimization Requirements (IAMR) will be met (State Parks, 2020):

1. All work will be approved by and done in consultation with the District Senior Environmental Scientist (ES) or their designee.
2. No healthy, mature, scenic trees will be removed unless doing so meets forest management/forestry goals for the park as determined by the Senior ES.
3. No ground disturbance is permitted unless consultation with the District Archeologist is conducted and it is determined that minimal ground disturbance will not result in cultural resource impacts. If a location is culturally sensitive then the District Archaeologist will review the site specific plan and place restrictions on equipment, removal (dragging), and disposal (pile burning) as needed. If deemed necessary, a tribal monitor may be required for work in certain areas.
4. The project will take place outside of Northern Spotted Owl nesting season and also comply with the Migratory Bird Treaty Act.

   4a. Northern Spotted Owl Breeding Season: Due to the potential presence of Northern spotted owls in the park, each project will be reviewed by the district Senior ES or designee to determine if northern spotted owl avoidance is necessary. If so, then vegetation modification work will be done outside of Northern spotted owl breeding season, the breeding season is February 1 – July 31. If work is done during northern spotted owl breeding season a USFWS protocol level surveys must be completed by a USFWS approved biologist prior to the work and the appropriate buffer zone created. Detection of Northern spotted owl nests during the USFWS protocol level surveys within 1/4 mile of the vegetation modification work will require that the work be delayed until the birds have fledged.

   4b. Migratory Bird Breeding Season: Vegetation modification work will be done when possible outside of migratory bird breeding season, which is from March 1 – August 31. If work is conducted at any time during migratory bird breeding season then bird nest surveys must be done by a State Parks-approved, qualified biologist or district Environmental Scientist within 7 days of the work. If work is not completed on consecutive days following the survey the surveys must be completed again prior to work re-starting.
5. The contractor/crews implementing work for the project will be informed of all environmental sensitivities prior to and during on the ground work. Once in the field, the contractor will be shown special plants and habitats, features to be avoided. A State Parks staff person or designee will be present on site each day to make sure the contractor understands and complies with the guidelines stated above.
6. Cut vegetative material will either be chipped and removed, cut up and scattered or pile burned at locations preapproved by State Parks. No chips shall be retained on park property.
7. Work will not occur within wetlands or riparian areas without appropriate regulatory permits.
8. All pile burning will be done by the local fire agency or their designee and approved by the District Senior Environmental Scientist (SES) or their designee.

9. All equipment used during the work will be cleaned prior to work starting within the park and will be free of dirt and plant material, in order to avoid the inadvertent spread of exotic invasive plant species.
10. No wildlife will be handled by Marin County Fire staff or their contractors. If any wildlife is detected in the project area they will be allowed to move out of the area on their own. If the wildlife does not move away from the work area the District Environmental Scientist will be contacted for further direction. Special care will be taken when working in wet conditions to not harm any amphibians that could be present under logs. Guidance will be provided by the District SES or their designee on a case-by-case basis.
11. Red Flag Days: No vegetation modification work will occur during a red flag warning.
12. All vegetation modification work done during the dry season will be done with a fire extinguisher on-site.
13. All vegetation modification plans must be reviewed by the District Archaeologist at least two weeks in advance of work. If the location of the work is determined to be culturally sensitive, the location will be surveyed and project restrictions or treatment measures will be included in planning. This may include changes to work areas, restrictions on type and size of equipment, removal and disposal methods, or archaeological and/or tribal monitoring.
14. Consultation will occur on a case by case basis once locations are identified for work.
15. Additional impact avoidance and minimization requirements may be implemented on a site by site basis as determined by the District SES or their designee.

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. Note that prescribed herbivory, which is referred to in several of these standard project design and implementation features, is not part of this project. Refer to the end of this document for citations to the documents the features were adapted from. The following specific design and implementation measures are part of the 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 training will address the potential for exposing subsurface resources, recognizing basic signs of a potential resource,

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

understanding required procedures if a potential resource is identified including reporting the resource to a qualified archaeologist, 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 Discovery1

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. Data regarding archaeological resources will be kept confidential per law, but may be shared with Native American tribes identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project site, if archaeological in nature and if the tribe has requested that such information be shared with them.

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. 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 below the topsoil layer, and the work area can only be accessed on foot as determined acceptable by the qualified cultural resource specialist/archaeologist.

Alternatively, the qualified archaeologist 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 qualified archaeologist determines that the resource could be a tribal cultural resource, he or she will, within 48 hours of the discovery, notify each Native American tribe identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project site of the discovery. A tribal monitor will inspect the resource to determine whether it constitutes a tribal cultural resource. If the resource is determined to be neither a unique archaeological, an historical resource, or a potential tribal cultural resource, work may commence in the area.

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

CUL-3 Cultural Resource Investigation[1,2]

Prior to implementation of vegetation management activities that have potential for intensive ground disturbance below the ground surface, significant heat from a burn, or use of heavy equipment off established roads and trails, a qualified archaeologist will conduct a records search and/or site-specific survey of the project areas where such disturbances could occur. Resources found during the records search and/or survey will be flagged for avoidance with an appropriate buffer identified by the qualified archaeologist, or the qualified archaeologist may identify modifications to the prescriptions using only hand tools or powered hand tools and access by foot with no ground disturbance, provided it would avoid all changes to the resources. Any resource found during the site survey will be documented on California State Department of Parks and Recreation cultural resource record forms and a survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures.

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

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

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 either (a) the potential to damage sensitive perennial plants, or (b) is proposed to occur during the

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

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

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

flowering season for the specific annual plant species and that has the potential to damage the flowering body and/or seeds. 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 within suitable habitat within the 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).

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 biologist.

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

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

RB-1 Prework Survey[3,4]

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

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

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

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

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

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

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

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

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

SH-3 Minimization of Pile Burning Disturbance[6,7]

Pile burning will not be performed in sensitive habitats, such as serpentine-associated communities, wetlands, or riparian areas. If piles are burned on a different day than piled, the piles should be moved prior to burning to ensure wildlife is not present, such as by re-piling by hand, or a qualified biologist will inspect the pile prior to burning to ensure wildlife are not present. If moving or inspection of the piles is not feasible, the pile will be lit from one side and allowed to burn slowly to the other side, in order to allow any wildlife to relocate, rather than lighting the entire pile at once.

Discussion of Potential Exceptions (CEQA Section Guidelines 15300.2)

(a) Location:

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

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

Sensitive habitats, including watercourses and wetland areas, would be avoided by equipment and manual and mechanical treatments. Due to the scope and design of the project, the 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:

Fuel reduction treatments, similar to that proposed for this project, have occurred in the fuel reduction zone over at least the last 20 years. Other defensible space and fuel reduction zone creation between communities and open space is occurring in the Southern Marin Zone and greater Marin County but would not be conducted within the same area as this project and would not result in cumulative impacts as defined in CEQA Guidelines Section 15300.2. Ongoing maintenance of the fuel reduction zones would occur every 5 years or as needed and would be limited to the types of activities previously described, which would be performed periodically to create defensible space between structures and open space. The visual character of project work areas would be modified each time vegetation treatments are implemented as vegetation regrows, due to reduction in vegetation cover and type (e.g., broom removal), but the natural character would remain. The design and implementation of this project includes features (e.g., IAMR 1, ES-1, CUL-1) that ensure that significant effects on environmental resources are avoided over successive years of maintenance. As such, the 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 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. The 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 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 as that fuel treatments could be visible; therefore, exception (d) does not apply (Caltrans, 2021).

(e) Hazardous Waste Sites:

Per the current government database of hazardous waste sites at the time of this filing, there are no hazardous waste sites located within or adjacent to the work areas (SWRCB, 2021). No ground disturbing activities that could unearth potentially contaminated soils would occur; therefore, exception (e) does not apply.

(f) Historical Resources:

Some hand pulling of invasive plants, pile burning, and potentially off-road use of a tracked chipper could occur. A site-specific survey of work areas would be conducted prior to implementation, and any identified resource areas would be flagged for avoidance (IAMR 13, CUL-3) or vegetation management activities would be limited (such as to only methods on foot) to avoid effects. As part of the project, workers would participate in a cultural training prior to 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). Pile burning would be conducted in areas that have been determined to not include sensitive resources (CUL-3). 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 Compliance

Biological Resources

Biological database searches for the vicinity of the fuel reduction zones were conducted (CDFW, 2021; CNPS, 2021). 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 the fuel reduction zones. No critical habitat for sensitive plants occurs within the vicinity of the work area. Some small pockets of serpentine soils are documented within the project area as shown in Figure 7 (USDA, 2020). Some special-status plant species have a moderate or high potential to occur in the fuel reduction zones (refer to Table 1 for information and Figure 2 for locations of known occurrences in relation to the project).

Pile burning may be conducted as a vegetation disposal method. Material would not be piled and burned in sensitive habitats (SH-3). Pile burns would affect a relatively small area. Workers would conduct vegetation trimming and removal with handheld manual and mechanical tools throughout the work area. 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 or, as appropriate, training for species-specific protocols for work, such as trimming methods (IAMR 5, ET-1). The training for this project would involve identification of Marin manzanita, Tiburon buckwheat, minute pocket moss, dark eyed gilia, small ground cone and Tamalpais oak for avoidance if encountered along the fuel reduction zones.

The vegetation trimming and removal would generally focus on removing invasive and fire-hazardous species, leaving native species in place. 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 prior to work starting (IAMR 9).

The blooming seasons for the species with a moderate or high potential to occur, dark-eyed gilia (annual) and small groundcone (perennial), are April to July and April to August, respectively. Initial treatment is anticipated to begin in November 2021 and end prior to the blooming seasons, although pile burning may occur during the blooming season. All operations will be conducted outside of the small ground cone blooming season. Off-road equipment use is unlikely to occur except as needed and feasible for vegetative debris disposal (e.g., tracked chipper), which could result in some crushed vegetation. The drive and potential crush would be limited in extent and only one or two passes would occur in any one area, minimizing the potential for significant effects on any special-status plants that may

occur in the area. Surveys would be conducted prior to work (ES-1) for any species of rare plants 1) that have a moderate to high potential to occur based on a review and professional judgment, and 2) for which the proposed vegetation management activity could damage the flowering body of the plant in the blooming season.

Any individuals found during the pre-work surveys would be flagged for avoidance or modified methods would be applied that would avoid affects to the plant. 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

Some wildlife species have a moderate and high potential to occur within the fuel reduction zones (refer to Table 1 for information and Figure 3 for locations of known occurrences in relation to the project). Workers would be trained on the types of wildlife species with a potential to occur in the work areas (ET-1). The pallid bat and Townsend's big-eared bat has a moderate potential to occur within the project area. Project activities would generally be conducted within the period of August 1 to January 31, avoiding nesting birds and maternity roosting bats. If activities must occur from February 1 to July 31 appropriate nesting bird and/or maternity roosting bat surveys would be conducted (IAMR 4a, IAMR 4b, RB-1, RB-2, RB-3, RB-4). Due to the scale and scope of the fuel reduction treatments, the monarch would not be adversely affected as these species are mobile and could move away from any danger posed by equipment or humans.

Critical habitat for the marbled murrelet is within this project area and northern spotted owl critical habitat is located less than 0.25 mile away as shown in Figure 4. A northern spotted owl activity center and nest sites are adjacent to the treatment area (USFS, 2021). The work areas have a high potential for northern spotted owl suitable habitat, but a low potential for marbled murrelet due to no recorded occurrences. Vegetation treatment and removal would target invasive, non-native, and fire-hazardous vegetation and accumulative dead biomass along the fuel reduction zones. Small trees, typically 8 to 10 inches dbh, potentially up to 12 inches dbh, and smaller, would be removed as part of clearance for horizontal spacing, although larger trees may be removed if determined to be a threat. This vegetation would grow back and be retreated as needed. Northern spotted owl typically prefers dense canopy closure of mature and old-growth trees with logs, standing snags, and live trees with broken tops. The owls also require open space in the understory to allow flight under the canopy to forage (USFWS, 2020). Most of the Marin County owls are known to use younger forests than those further north in California (MMWD, 2019). The project would thin vegetation in the understory and reduce the risk of high intensity fire that could permanently damage established nest sites. The project would also improve foraging habitat for northern spotted owl by reducing understory density and therefore permitting foraging by owls in flight. A study of dusky-footed woodrats (a prey base for northern spotted owls) in the redwood region of California did not find an association between abundances of woodrats and different intensities of forest thinning (Hamm & Diller, 2009).

As stated previously, vegetation treatment activities would occur outside of the northern spotted owl nesting season to the extent possible (IAMR 4a). If 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 (IAMR 4a). If any large trees 10 inches DBH or greater are identified for removal based on forestry practices, a qualified northern spotted

owl biologist would be consulted (NSO-3). Dusky-footed wood rat nests would be left intact wherever feasible (NSO-4). Given the work would be focused on removal of hazardous fuels near structures and roads and the relatively low intensity of the vegetation thinning activities (e.g., minor alterations to land), the work would not be considered major habitat alteration for northern spotted owls.

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

Wetlands

Streams intersect or occur adjacent to the project work areas as shown in Figure 6 (USFWS, 2021). Streams would be avoided by project activities. Seasonal wetlands may be encountered within the fuel reduction zones. Training would ensure that workers conducting manual and mechanical activities or using a tracked chipper avoid wetlands (ET-1). Significant impacts on wetlands would not occur.

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	Low; suitable habitat will be avoided.	Low; can be identified and avoided with training.
Amsinckia lunaris	bent-flowered fiddleneck	CNPS 1B.2	Grassland, serpentine, gravelly slopes	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Arctostaphylos montana ssp. montana	Mt. Tamalpais manzanita	CNPS 1B.3	Chaparral, valley grassland	Low; no known occurrences nearby and suitable habitat is not mapped in the project area.	Low; manzanitas can be identified and avoided with training.
Arctostaphylos virgata	Marin manzanita	CNPS 1B.2	Closed-cone pine forest, redwood forest, mixed evergreen forest, chaparral	Moderate; known occurrences and suitable habitat are found near the project area.	Low; manzanitas can be identified and avoided with training.
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	CNPS 1B.2	Coastal salt marsh	None; suitable habitat will be excluded from project design.	None
Cirsium andrewsii	Franciscan thistle	CNPS 1B.2	Bluffs, seeps, occasionally serpentine	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Cirsium hydrophilum var. vaseyi	Mt. Tamalpais thistle	CNPS 1B.2	Serpentine seeps	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Dirca occidentalis	western leatherwood	CNPS 1B.2	Riparian	Low; suitable habitat will be avoided.	Low; can be identified and avoided with training.
Eriogonum luteolum var. caninum	Tiburon buckwheat	CNPS 1B.2	Chaparral, coastal prairie, valley grassland	Moderate; known occurrences and suitable habitat are	Low; project activity within chapparal habitat will be limited to removal of encroaching

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				found within the project area.	conifers. Species can be identified and avoided with training.
Fissidens pauperculus	minute pocket moss	CNPS 1B.2	Seasonally moist hard-packet soils on steep faces, gullies, or cut banks	Moderate; known occurrences and suitable habitat are found near the project area.	Low; Bryophytes are unlikely to be impacted by project activities.
Fritillaria lanceolata var. tristulis	Marin checker lily	CNPS 1B.1	Oak or pine scrub, grassland	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Gilia capitata ssp. chamissonis	Blue Coast gilia	CNPS 1B.1	Coastal sandhills	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Gilia millefoliata	dark-eyed gilia	CNPS 1B.2	Coastal dunes	Moderate; known occurrences and suitable habitat are found within the project area.	Low; can be identified and avoided with training; work will occur outside of the blooming period and measures will be taken to avoid impacts to the seed bank. If work that could damage flowering body occurs during blooming season, surveys would occur.
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	CNPS 1B.2	Northern coastal scrub, valley grassland	Low; suitable habitat is present nearby, but known occurrences are 1.5 miles away from project area.	Low; can be identified and avoided with training.
Holocarpha macradenia	Santa Cruz tarplant	FT, CE, CNPS 1B.1	Grassy areas, clay soil	Low; some suitable habitat is present nearby. Only CNDDB entry is not dated and is noted as unconfirmed.	Low; can be identified and avoided with training.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				Species not verified in the vicinity.	
Horkelia marinensis	Point Reyes horkelia	CNPS 1B.2	Coastal dunes	Low; no known occurrences nearby and suitable habitat is not mapped in the project area.	Low; can be identified and avoided with training.
Horkelia tenuiloba	thin-lobed horkelia	CNPS 1B.2	Open chaparral	Low; suitable habitat will be avoided.	Low; project activity within chapparal habitat will be limited to removal of encroaching conifers. Species can be identified and avoided with training.
Kopsiopsis hookeri	small groundcone	CNPS 2B.3	Open woodland, mixed conifer forest	Moderate; known occurrences and suitable habitat are found within the project area.	Low; can be identified and avoided with training; work will occur outside of the blooming period and measures will be taken to avoid impacts to the seed bank. If work that could damage flowering body occurs during blooming season, surveys would occur.
Lessingia micradenia var. micradenia	Tamalpais lessingia	CNPS 1B.2	Thin, gravelly soil of serpentine outcrops, roadcuts	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Navarretia rosulata	Marin County navarretia	CNPS 1B.2	Rocky, serpentine	Low; suitable habitat will be avoided.	Low; can be identified and avoided with training.
Pleuropogon hooverianus	North Coast semaphore grass	CNPS 1B.1, CT	Meadows, vernal-pools	Low; no vernal pools are documented in the vicinity, and suitable habitat will be avoided.	Low; can be identified and avoided with training.
Quercus parvula var. tamalpaisensis	Tamalpais oak	CNPS 1B.3	Understory conifer woodland	Moderate; known occurrences and	Low; can be identified and avoided with training; species

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
				suitable habitat are found near the project area.	can be identified and avoided outside of the blooming period.
Stebbinsoseris decipiens	Santa Cruz microseris	CNPS 1B.2	Open coastal, serpentine, sandy	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Streptanthus batrachopus	Tamalpais jewelflower	CNPS 1B.3	Serpentine barrens, chaparral	Low; no known occurrences near project area.	Low; can be identified and avoided with training.
Streptanthus glandulosus ssp. pulchellus	Mt. Tamalpais bristly jewelflower	CNPS 1B.2	Chaparral, valley grassland	Low; no known occurrences near project area.	Low; project activity within chapparal habitat will be limited to removal of encroaching conifers. Species can be identified and avoided with training.
Sensitive Wildlife					
Antrozous pallidus	pallid bat	SSC	Roosts in large diameter trees and abandoned buildings	Moderate; some potentially suitable habitat.	Low; work would 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.
Brachyramphus marmoratus	marbled murrelet	FT, CE	Breeds inland on mountains near coast	Low, critical habitat present in project area, but no occurrences recorded	Low; work would occur outside nesting season or surveys will be conducted. Removal would focus on small trees and hazardous fuels; healthy, mature trees would not be removed; removal of larger hazard trees would not occur without consultation with a qualified biologist. Species will be

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
					included in environmental training to ensure avoidance.
Corynorhinus townsendii	Townsend's big-eared bat	SSC	Caves, mines, bridges, building, rock crevices, tree hollows in coastal lowlands, and cultivated valleys; prefer roosting in caves or other similar open spaces	Moderate; suitable habitat is present in project area and one occurrence is documented near the project area.	Low; work would 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.
Danaus plexippus pop. 1	monarch - California overwintering population	FC	Grassland, woodland (e.g., eucalyptus)	Low; some potentially suitable habitat.	Low; can disperse from other areas. This species will be included in environmental training to ensure avoidance.
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; species is highly associated with streams in wet coastal forests. This habitat type is infrequent in the project footprint which hugs open ridgelines, and riparian areas will be avoided within the project area.	Low; species is highly associated with streams in wet coastal forests. This habitat type is infrequent in the project footprint which hugs open ridgelines, and riparian areas will be avoided within the project area.
Emys marmorata	western pond turtle	SSC	Freshwater ponds and streams	Low; drainages within the project area not anticipated to be suitable habitat for the species.	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Species habitat will be included in environmental training to ensure avoidance.
Laterallus jamaicensis coturniculus	California black rail	FT, FP	Tidal saltmarshes, freshwater marshes, and wetlands	None; Wetland species. Suitable habitat is not anticipated in the project. Work will not occur in wetlands.	None

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Melospiza melodia samuelis	San Pablo song sparrow	FE, CE	Marshes and wetland edges	Low; species highly associated with wetland edges which will be excluded from project areas.	Low; can disperse from other areas, and suitable breeding habitat would be avoided. Work would occur outside nesting season or surveys will be conducted and active nests avoided.
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	FE, CE	Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Rallus obsoletus obsoletus	California Ridgway's rail	FE, CE, FP	Saltwater marshes, freshwater marshes, and mangrove swamps	None; Wetland species. Suitable habitat is not anticipated in the project. Work will not occur in wetlands.	None
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.	Low; suitable habitat will be excluded from the project area. One occurrence is documented near project area.	Low; suitable habitat will be avoided by project design. Species will be included in environmental training to ensure avoidance.
Rana draytonii	California red-legged frog	FT, SSC	Breeds in ponds/slow moving streams, may use grassland and oak woodland for dispersal and foraging	Low to moderate; suitable habitat will be excluded from the project area. individuals may move into upland away from aquatic features during wet weather.	Low; suitable habitat will be avoided by project design. Species will be included in environmental training to ensure avoidance.

Scientific Name	Common Name	Sensitive Status	Habitat Types	Potential to occur in treatment areas	Potential to be impacted by treatment
Spirinchus thaleichthys	longfin smelt	FC, CT	Aquatic	None; aquatic species. Aquatic areas are excluded from the project footprint.	None
Strix occidentalis caurina	Northern spotted owl	Federally threatened, California state Threatened	Dense canopies of mature and old-growth forests. Nests in tree hollows	High; one activity center and multiple nests are documented near the southern end of project area.	Low; work would occur outside nesting season or surveys will be conducted. Removal would focus on small trees and hazardous fuels; healthy, mature trees would not be removed or removal of larger hazard trees would not occur without consultation with a qualified biologist. Species will be included in environmental training to ensure avoidance.

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

Source: (CDFW, 2021; CNPS, 2021; CDFG, 2003; Hickman, 1993; Stebbins, 2003)

Cultural Resources and Tribal Cultural Resources

In 2011, the Throckmorton project area was assessed by a Registered Professional Forester (RPF) affiliated with MCFD. The RPF performed a routine cultural records check and background search, made preliminary contact with the Native American Heritage Commission and sent initial letters to listed tribal groups. The survey methods were cursory and consisted of walking trails and ridges in the project area. The entire project area was covered in 8 hours along with the identified resource locations, which indicates the survey was not comprehensive. Records search data from the Northwest Information Center (NWIC) of the California Historical Resource Information System (CHRIS) indicated that there were three recorded cultural resources within the State Park portion of the 2011 treatment site. Conditions were attached to work around these sites in 2011, including restrictions on soil disturbance, pile locations, and monitoring. No follow up reporting was done after the completion of work in 2011.

State Parks maintains a database of records search data acquired from the NWIC for the Mount Tamalpais State Park. The records indicate that the three cultural resources identified by the RPF in 2011 are indeed located within the project area and have not been recently assessed, which include the Dipsea Trail, a National Register of Historic Places-eligible resource, and a Native American cultural site. The records search also indicates that this area has not otherwise been covered by a cultural resource survey aside from the 2011 study. Three previous surveys have been conducted that covered small portions of the project area, which included two surveys conducted in 1989 for a sewer project and another survey from 2012 for a small road slip out. State Parks conducted consultation with the Federated Indians of Graton Rancheria who expressed interest in the project and requested that a cultural survey be completed prior to work with a tribal monitor present. The project area has known cultural resources and a moderate potential for previously undiscovered cultural and tribal cultural resources.

Equipment and vehicles for the fuel reduction activities would operate from existing fire roads and trails adjacent to the work areas. A tracked chipper may be used off-road depending upon site conditions and need. The potential crush by a tracked chipper would be limited in extent and only one or two passes would occur in any one area, minimizing the potential for damage or destruction on any potential resource that may occur in the area. 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. Pile burning would not cause ground disturbance. Heat from a wildfire or a prescribed burn may scorch, create a buildup of residue on the resource, fracture the resource, or destroy the resource (NPS, 2016). Pile burning would be conducted in areas after completion of a site-specific survey to ensure avoidance of any cultural resources (CUL-3). Alternatively, pile burning would occur in a previously disturbed area such as a trail.

Workers would participate in a cultural training prior to project implementation (IAMR 5, CUL-1) and should a previously unidentified cultural resource be discovered, work would halt in the area and the resource fully avoided (CUL-2). Due to the sensitivity of the area, a site-specific survey of work areas would be conducted prior to the disturbance and any identified resource areas would be flagged for avoidance (IAMR 13, CUL-3) or vegetation management treatments would be limited (such as to only methods on foot) to avoid effects. A current archaeological survey of the project area is requested by State Parks prior to the implementation of the project, rather than relying on the 2011 survey, because:

- The 2011 survey is now over 10 years old. Typically, cultural survey and reporting is considered out of date after 5 to 10 years;
- The 2011 survey was conducted by an RPF with limited archaeological training. Current State Park standards require a cultural survey be conducted by a Secretary of the Interior qualified archaeologist;
- A more recent records search at the NWIC of the CHRIS identified that the same three resources are present on State Parks property within the project area and that they have not been recently assessed or examined, nor reviewed in relation to this project;
- No recent surveys have covered this project area in the intervening time that could be used to satisfy this condition; and
- Native American consultation was perfunctory in 2011 and did not result in any discussion with local tribal representatives regarding the project. Tribal consultation requirements have changed in recent years and as part of State Parks environmental compliance requirements which requires tribal consultation, the Federated Indians of Graton Rancheria requested that a cultural survey.

Based on the cultural records for the project area, it is expected that at least one location would require some avoidance and an archaeological and tribal monitor for work in the vicinity to avoid effects. Additional monitoring or avoidance areas may be identified if the cultural survey identifies additional cultural or tribal cultural resources (IAMR 13, CUL-3). Significant impacts on cultural resources and human remains would not occur.

References

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

Caltrans. (2021). *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. (2021, June). California Natural Diversity Database (CNDDB) Rarefind Program. Sacramento, CA: California Department of Fish and Wildlife.

CNPS. (2021). Electronic Inventory of Rare and Endangered Vascular Plants of California, Database search for Marin County and surrounding quadrangles. C. Sacramento CA: CNPS.

Hamm, K., & Diller, L. (2009). Forest Management Effects on Abundance of Woodrats in Northern California. *Northwestern Naturalist*, 97-106.

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

Marin County. (2020, December). Marin County Community Wildfire Protection Plan.

MMWD. (2019, October). *Final Program Environmental Impact Report for the Biodiversity, Fire, and Fuels Integrated Plan* . Retrieved from State Clearinghouse No. 2017012007.

NPS. (2016, March 15). *Exploring the Fire and Archeology Interface*. Retrieved July 7, 2017, from https://www.nps.gov/archeology/sites/npsites/fire.htm

State Parks. (2020, February 20). Boundary Vegetation Modification and Defensible Space Work Project Notice of Exemption. *State Clearinghouse # 2020020416*.

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

SWRCB. (2021). *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

USFS. (2021, May). Final Critical Habitat for Threatened and Endangered Species online mapper.

USFWS. (2020). *Key Species: Northern Spotted Owl*. Retrieved from https://www.fws.gov/oregonfwo/articles.cfm?id=149489595

USFWS. (2021, May 5). National Wetlands Inventory website. Washington, D.C. .

Figure 1 Treatment Area

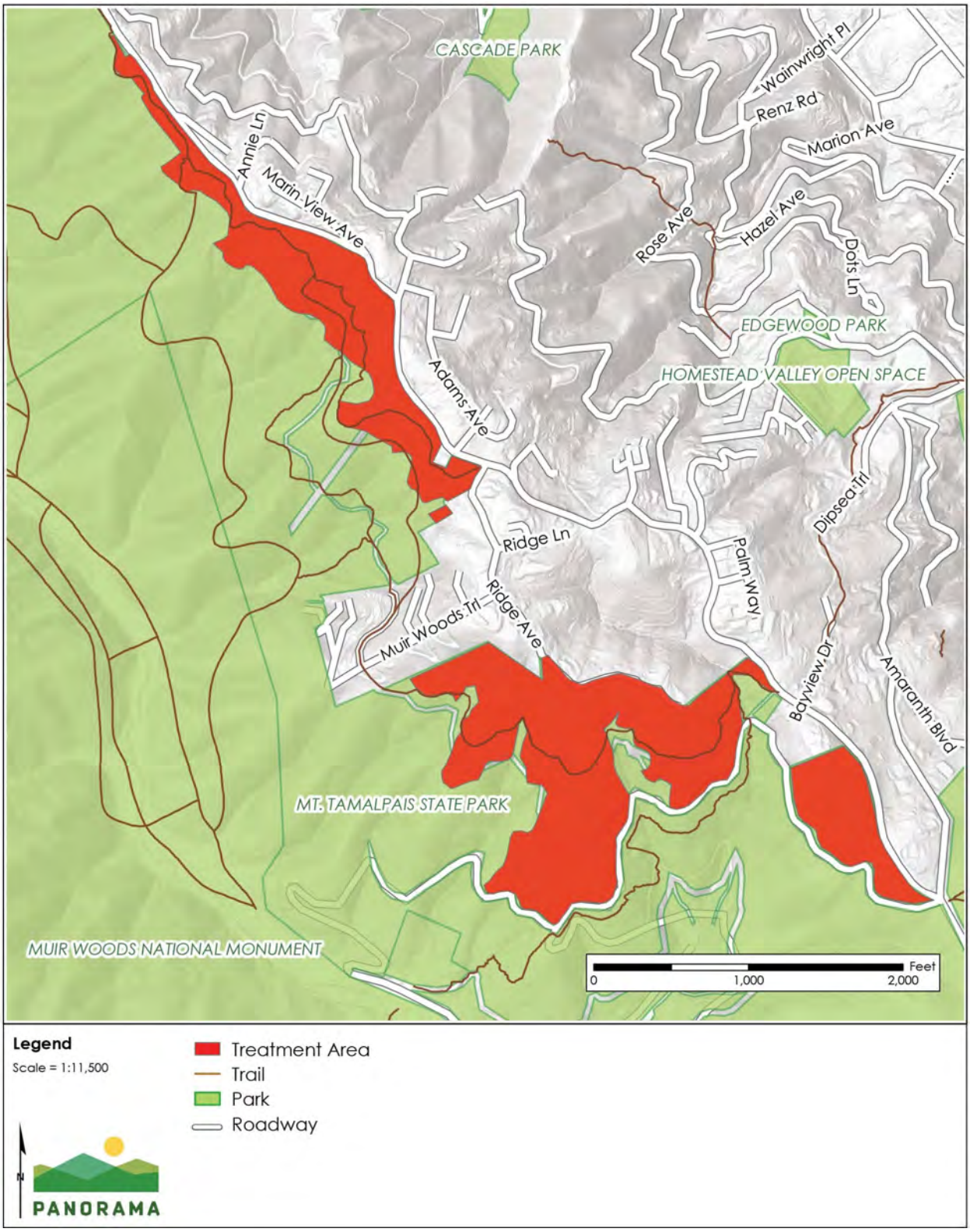

Figure 2 Special-Status Plant Occurrences

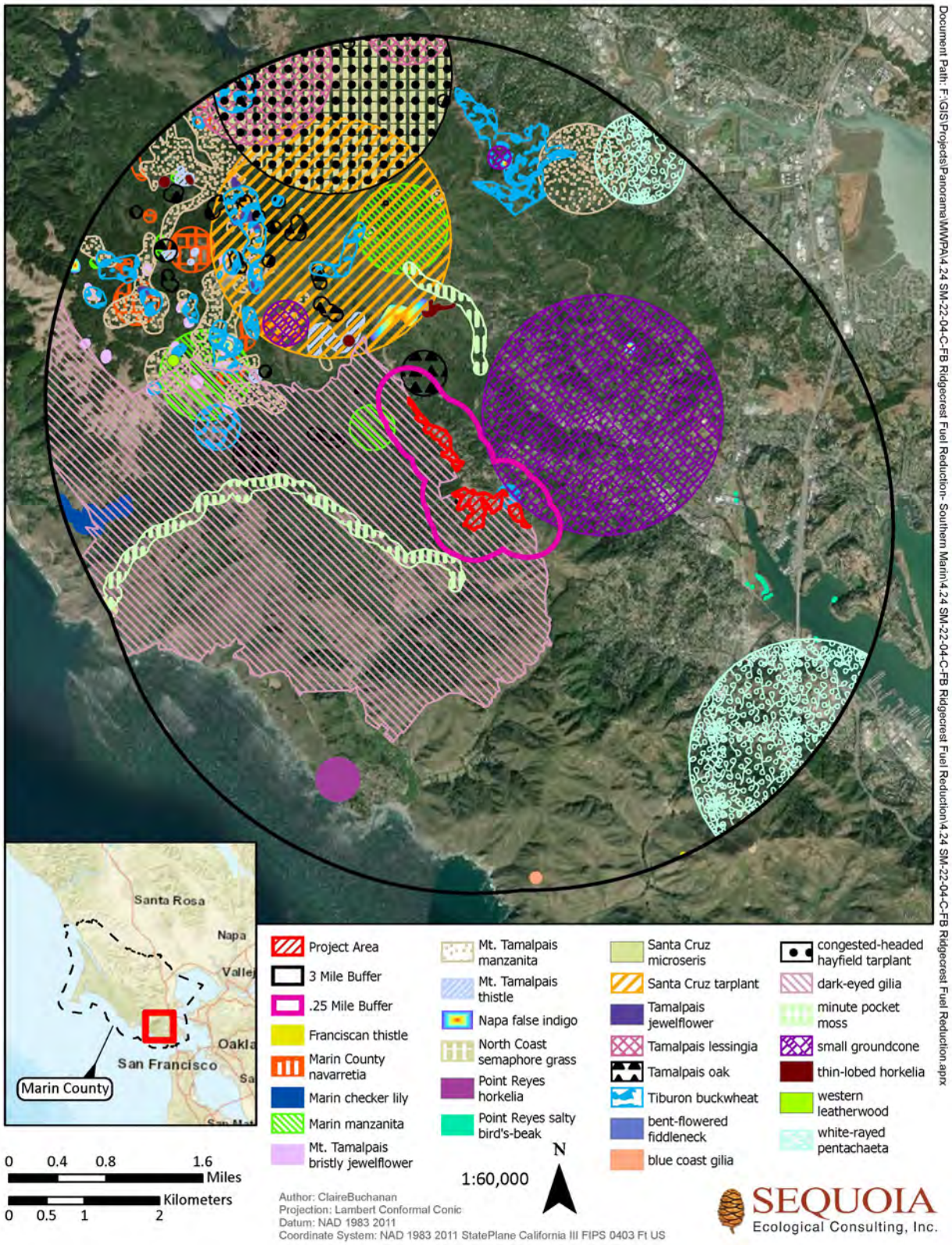

Figure 3 Special-Status Wildlife Occurrences

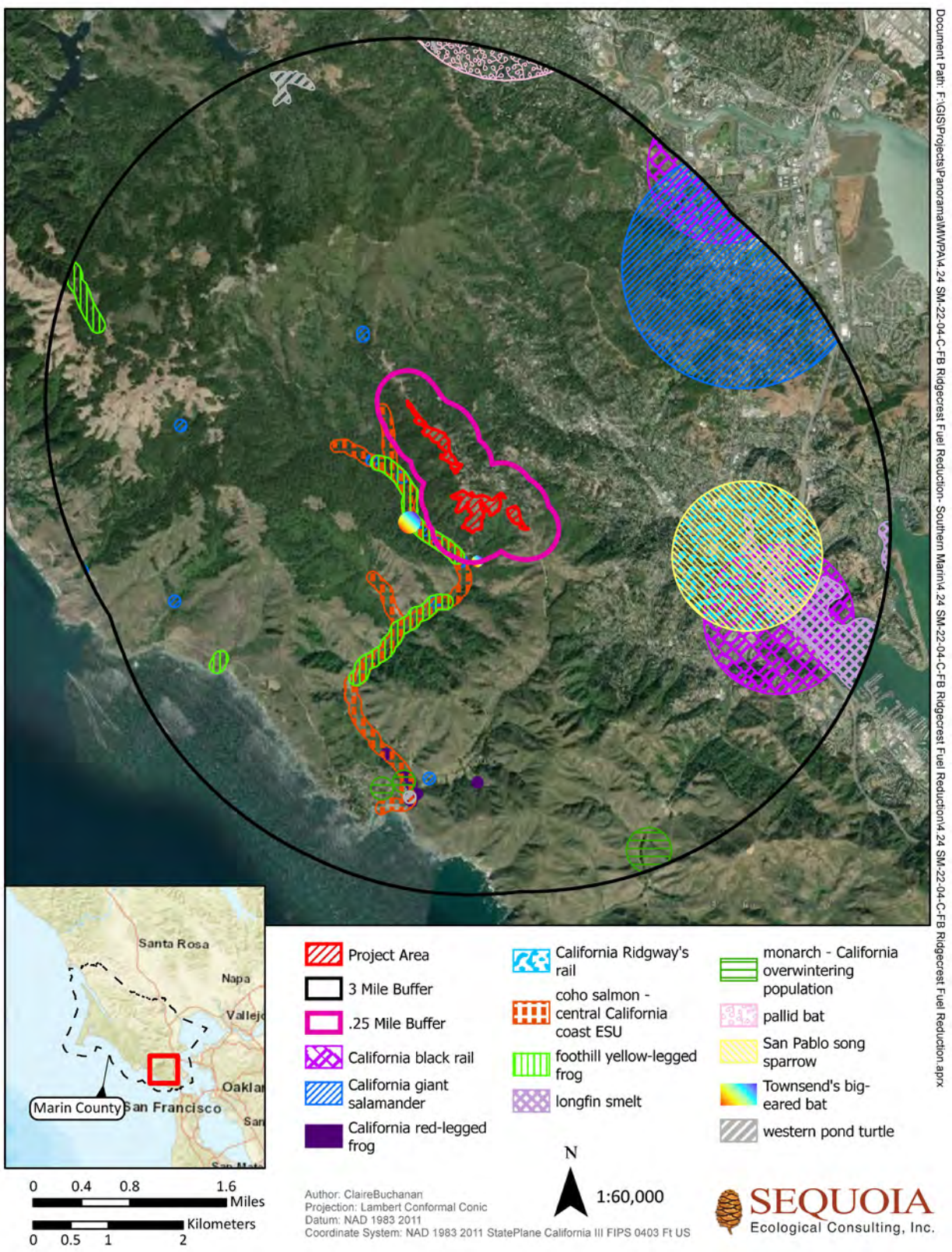

Figure 4 Northern Spotted Owl Observations

Figure omitted to protect northern spotted owl nest locations.

Figure 5 Critical and Sensitive Habitats

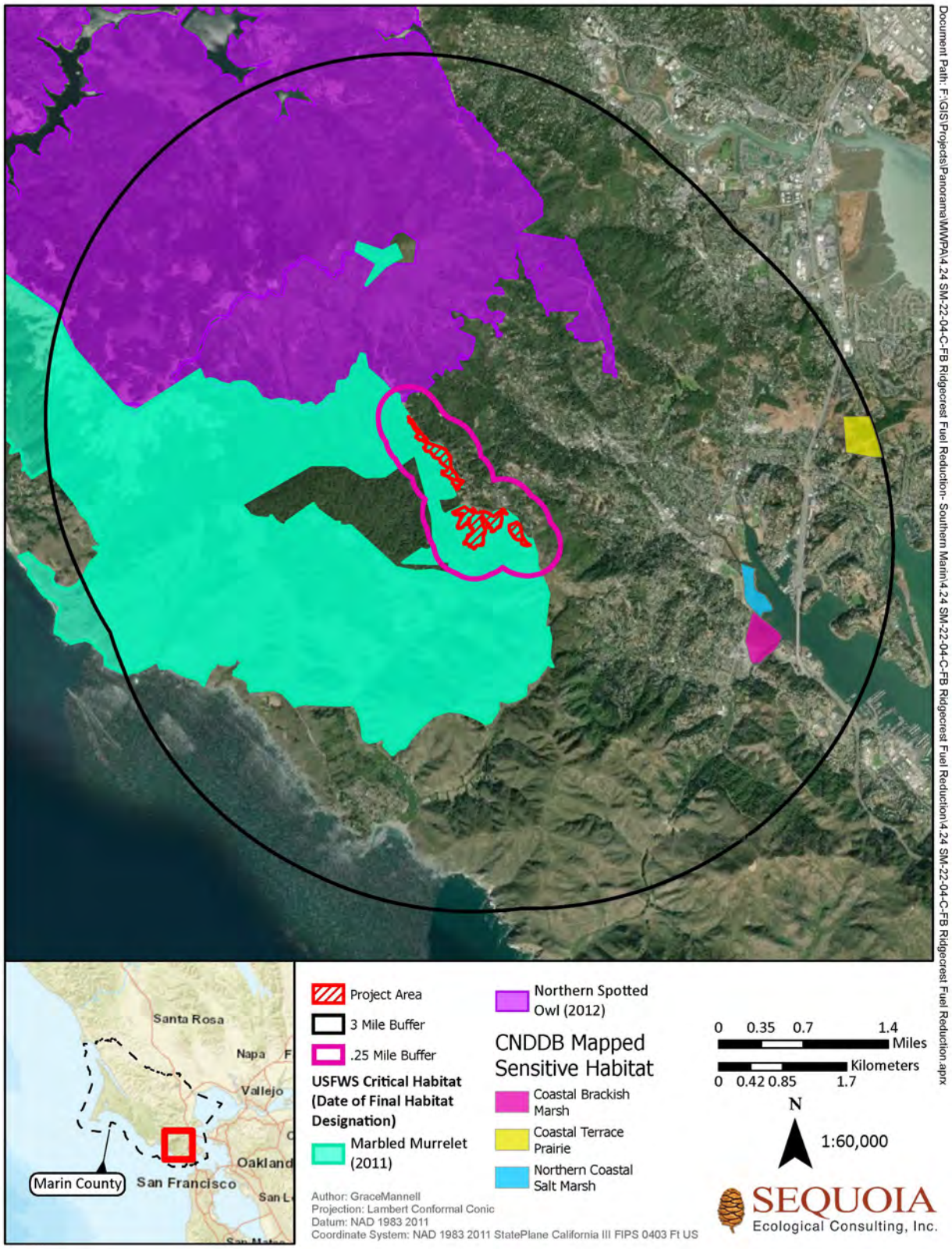

Figure 6 Wetlands and Waterways

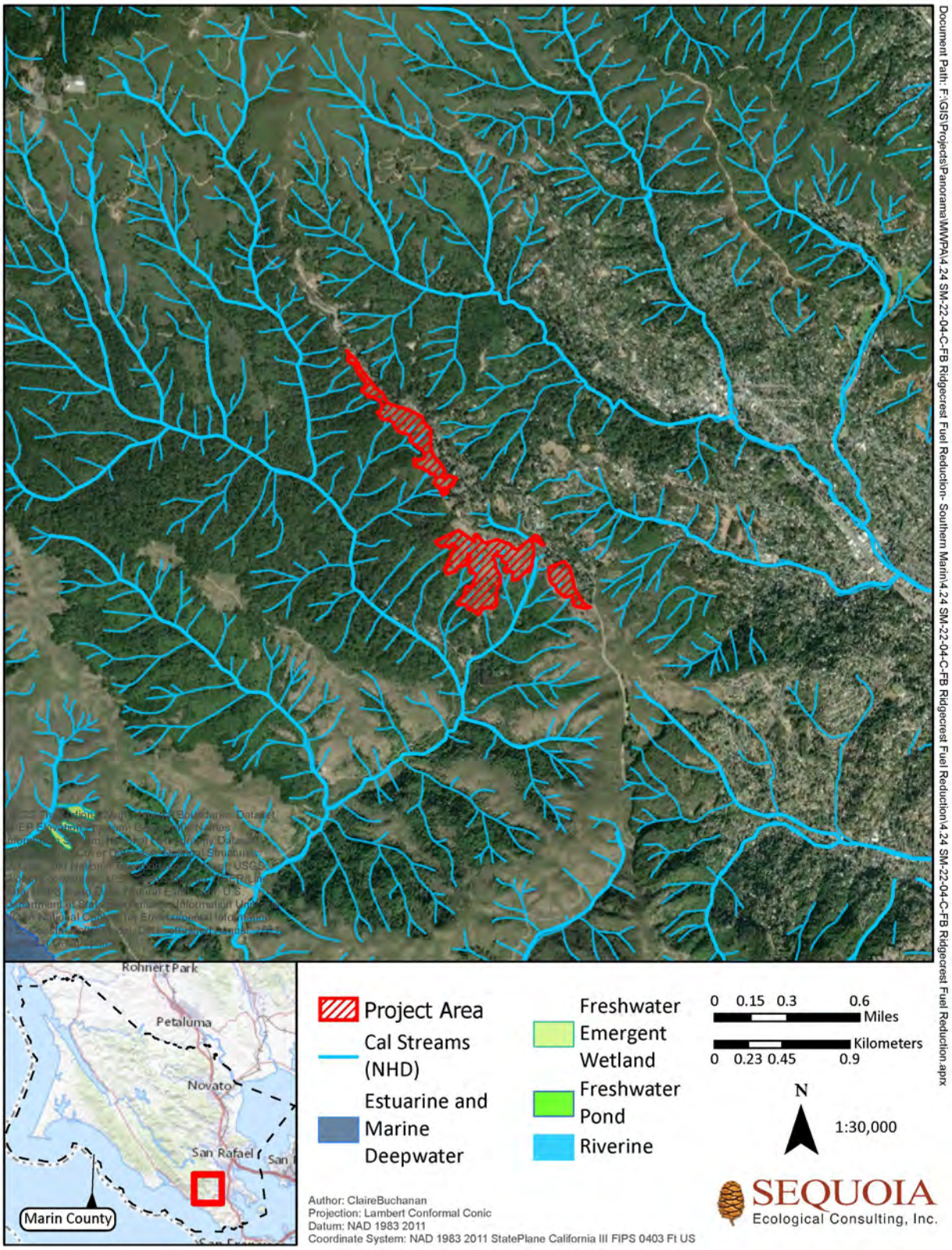

Figure 7 Serpentine Soils