Final
Mitigated Negative Declaration
for the
Concow Pyrodiversity Project,
Butte County, California

Prepared by:

Butte County Resource Conservation District (BCRCD)
150 Chuck Yeager Way, Suite A, Oroville, CA 95965
(530) 693-3173, wolfy@bcrcd.org

June 15, 2023

State of California - Department of Fish and Wildlife

2023 ENVIRONMENTAL DOCUMENT FILING FEE CASH RECEIPT

DFW 753.5a (REV. 01/01/23) Previously DFG 753.5a

RECEIPT NUMBER: 04-06152023-055

STATE CLEARINGHOUSE NUMBER *(If applicable)*

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEADAGENCY EMAIL	DATE
BUTTE COUNTY RESOURCE CONSERVATION		06/15/2023

COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER
BUTTE	32

PROJECT TITLE

CONCOW PYRODIVERSITY PROJECT

PROJECT APPLICANT NAME	PROJECT APPLICANT EMAIL		PHONE NUMBER
CAL FIRE BTU			(530) 721-0164
PROJECT APPLICANT ADDRESS	**CITY**	**STATE**	**ZIP CODE**
150 CHUCK YEAGER WAY, STE. A	OROVILLE	CA	95965

PROJECT APPLICANT *(Check appropriate box)*

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

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,839.25	$	
☒ Mitigated/Negative Declaration (MND)(ND)	$2,764.00	$	$2,764.00
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW	$1,305.25	$	

☐ Exempt from fee

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

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

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

PAYMENT METHOD:

☐ Cash ☐ Credit ☒ Check ☐ Other **TOTAL RECEIVED** $ $2,814.00

SIGNATURE	AGENCY OF FILING PRINTED NAME AND TITLE
X [signature]	Rob Fridrich, Deputy County Clerk-Recorder

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGENCY COPY - COUNTY CLERK DFW 753.5a (Rev. 01/01/2023)

DECLARATION OF FEES DUE

(California Fish and Wildlife Code Section 711.4)

FOR CLERK USE ONLY

NAME AND ADDRESS OF LEAD AGENCY/APPLICANT

Butte County Resource Conservation District
150 Chuck Yeager Way, Ste. A
Oroville, CA 95965

Project Title: Concow Pyrodiversity Project

FILING NO.

FILED
JUN 15 2023
KEATON DENLAY, BUTTE CO. CLERK
DEPUTY

CLASSIFICATION OF ENVIRONMENTAL DOCUMENT:

1. NOTICE OF EXEMPTION/STATEMENT OF EXEMPTION

[ ] A. Statutorily or Categorically Exempt

$50.00 (Fifty Dollars) Butte County Clerk's Fee

2. NOTICE OF DETERMINATION - FEE REQUIRED

[X] A. Negative Declaration

$2,764.00 (Two Thousand Five Hundred and Forty Eight Dollars) State Filing Fee

$50.00 (Fifty Dollars) Butte County Clerk's Fee

B. Environmental Impact Report

$3,839.25 (Three Thousand Five Hundred Thirty Nine Dollars and Twenty-Five Cents) State Filing Fee

$50.00 (Fifty Dollars) Butte County Clerk's Fee

3. OTHER (Specify) General Rule Exemption

[ ] $50.00 (Fifty Dollars) Butte County Clerk's Fee

This form must be completed and submitted with all environmental documents filed with the Butte County Clerk's Office.

All applicable fees must be paid at the time of filing any environmental documents with the Butte County Clerk's Office.

One original and two (2) copies of all necessary documents are required for filing purposes.

The $50.00 (Fifty Dollars) handling fee is required per filing in addition to the filing fee specified in Fish and Game Code Section 711.4 (d).

Make checks payable to Butte County Clerk-Recorder.

Butte County
Keaton Denlay , County Clerk-Recorder
155 Nelson Avenue

Oroville, CA 95965
(530) 552-3400, Option 2

Receipt: 23-9714

Product	Name	Extended
CEQA	CEQA FISH AND WILDLIFE	$2,814.00
# Pages		1
Document #		04-06152023-055
Document Info:		BUTTE COUNTY RESOURCE CONSERVATION
Filing Type		ND
State Fee Prev Charged		false
No Charge Clerk Fee		false
Total		$2,814.00
Tender (Check)		$2,814.00
Check Number	5656	
Paid By	BUTTE COUNTY RESOURCE CONSERVATION	

Thank You

6/15/23 2:50 PM rfridrich

5656

BUTTE COUNTY RESOURCE CONSERVATION DIST.

06/14/2023 **Butte County Clerk Recorder**

Date	Type	Reference	Original Amount	Balance Due	Payment
06/07/2023	Bill		2,814.00	2,814.00	2,814.00

Check Amount 2,814.00

General Account-#47

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MITIGATED NEGATIVE DECLARATION

Introduction and Regulatory Context

STAGE OF CEQA DOCUMENT DEVELOPMENT

☐ **Administrative Draft.** This California Environmental Quality Act (CEQA) document is in preparation by Butte County Resource Conservation District (BCRCD) staff.

☐ **Public Document.** A draft of this CEQA document has been filed by BCRCD at the State Clearinghouse on May 5, 2023, and was circulated for a 30-day state agency and public review period. The review period ended on Monday, June 5, 2023.

☒ **Final CEQA Document.** This final CEQA document contains the changes made by the District following consideration of comments received during the public and agency review period (see p. 16). The CEQA administrative record supporting this document is on file, and available for review, at the Butte County Resource Conservation District office, 150 Chuck Yeager Way, Suite A, Oroville, CA 95965.

INTRODUCTION

Immediately after the Camp Fire, multiple partners began working together to plan long-term vegetation management in the Flea Valley drainage, a steep and rugged watershed where the Camp Fire originated in the early morning hours of November 8, 2018. These partners included CAL FIRE, BCRCD, the U.S. Forest Service which owns about two-thirds of the watershed, and Sierra Pacific Industries which owns most of the other third. Local fire safe councils and the Konkow Valley Band of Maidu Indians were also involved in discussions.

Because of the watershed's strategic location and the critical role it played in at least two disastrous wildfires in the last 10 years (2008 BTU Lightning Complex and 2018 Camp Fire), managing fuels there was a priority for CAL FIRE. However, CAL FIRE lacked the capacity to develop the environmental documents legally necessary to authorize the project. In 2020, BCRCD successfully pursued a grant from the Wildlife Conservation Board (WCB) to complete project planning, to fund all necessary environmental studies and analysis, and to develop the environmental documents.

The project includes both private and public (federally owned) lands[1]. On the project's 1,895 acres of federally owned land, BCRCD and Plumas National Forest were able to complete both NEPA and CEQA documents by the end of 2021. Therefore, these federal lands are not further analyzed in this document (although actions there are considered in the cumulative effects analysis in this document).

On the project's 1,174 acres of privately owned acres, CEQA coverage should have also been possible to complete by the end of 2021. However, the CEQA process became stalled by internal CAL FIRE delays. These delays were administrative, relating to the choices to utilize the CalVTPEIR document[2] and to have CAL FIRE serve in the lead agency role. The delays were not

[1] For an ownership map of the project, see map 2.

[2] The CalVTPEIR, or the Board of Forestry and Fire Protection's Vegetation Treatment Programmatic Environmental Impact Report, is a programmatic CEQA document certified in December, 2019. Covering most of the State Responsibility Area, it was intended to be a

related to potential environmental impacts nor their analysis.

By spring 2023, after discussions with CAL FIRE and the Wildlife Conservation Board, BCRCD elected to step into the lead agency role and complete a CEQA document so the project could advance closer to implementation. To do so, BCRCD simply collected all the environmental data, maps, and analysis already generated during the CalVTPEIR process and reformatted them into the initial study-mitigated negative declaration (IS-MND) document you are reading. In doing so, all meaningful resource-related standard project requirements and mitigation measures from the CalVTPEIR document were preserved. The project proponents are CAL FIRE and Sierra Pacific Industries.

This IS-MND describes the environmental impact analysis conducted for the private-lands portion of the proposed Concow Pyrodiversity Project. This document was prepared by BCRCD staff utilizing information gathered from a number of sources including research, field review of the proposed project area, and consultation with environmental planners and other experts on staff at other public agencies. Pursuant to § 21082.1 of CEQA, the lead agency, BCRCD, has prepared, reviewed, and analyzed the IS-MND and declares that the statements made in this document reflect BCRCD's independent judgment as lead agency pursuant to CEQA. BCRCD further finds that the proposed project, which includes revised activities and mitigation measures designed to minimize environmental impacts, will not result in a significant effect on the environment.

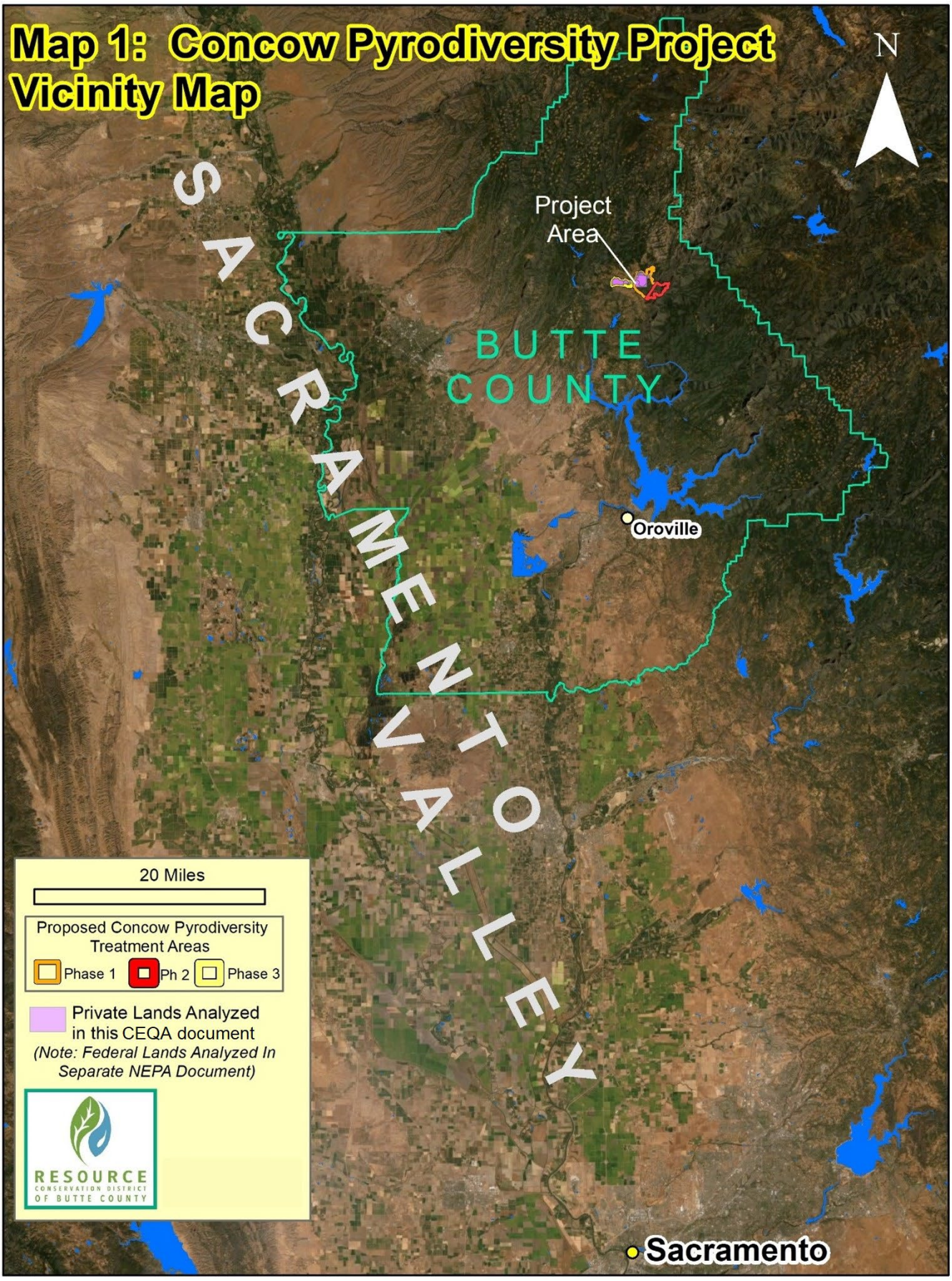
REGULATORY GUIDANCE

This document has been prepared in accordance with current CEQA Statutes (Public Resources Code §21000 *et seq*.) and current CEQA Guidelines (California Code of Regulations [CCR] §15000 *et seq*.)

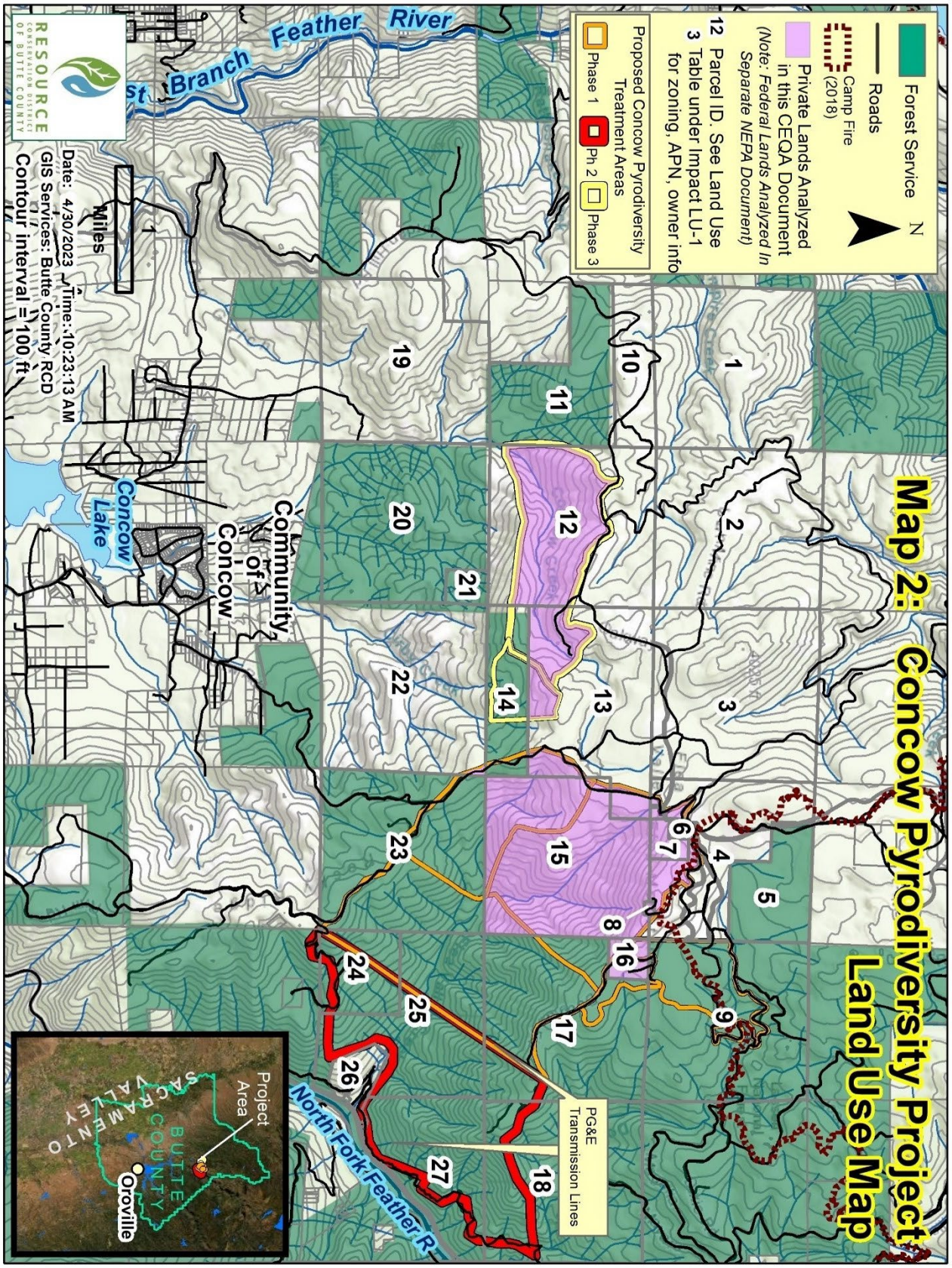
An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (14 CCR § 15063(a)), and thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines §15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The initial study shows that there is no substantial evidence…that the project may have a significant impact upon the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions will reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project will not have a significant effect on the environment and, therefore, does not require the preparation of an environmental impact report. This IS-MND conforms to these requirements and to the content requirements of CEQA Guidelines § 15071.

relatively streamlined CEQA compliance pathway which CAL FIRE and partners could opt to use. To authorize projects such as the Concow Pyrodiversity Project, agencies complete and file a tiered environmental document known as a Project Specific Analysis (PSA). Treatments that could be authorized under the CalVTPEIR include prescribed fire, manual and mechanical fuels reduction, and grazing, among others. Readers can learn more about the CalVTPEIR by visiting https://bof.fire.ca.gov/projects-and-programs/calvtp/ .

Map 1: Vicinity Map



Map 2: Ownership Map



PURPOSE OF THE Mitigated Negative Declaration

The purpose of this MND is to disclose the environmental consequences of implementing the proposed project and the adjustments made to the project to avoid significant effects or reduce them to a less-than-significant level. This disclosure document was circulated in draft form for public and state agency review and comment for a review period of 30 days as indicated on the ***Notice of Intent to Adopt a Mitigated Negative Declaration*** (NOI).

The requirements for providing an NOI are found in CEQA Guidelines §15072. BCRCD elected to post the NOI in a newspaper of general circulation in the area affected by the proposed project, so the NOI was posted in the Chico Enterprise-Record and the Oroville Mercury-Register on Friday, May 5, 2023. Additionally, an electronic version of the NOI and the CEQA document were made available for review for the entire 30-day review period through their posting at: http://www.bcrcd.org.

The 30-day public review period for this project began on May 5, 2023 and ended on June 5, 2023. Four comments were received and integrated into this final document (see discussion starting p. 16).

PROJECT DESCRIPTION, OBJECTIVES, & ENVIRONMENTAL SETTING

PROJECT LOCATION

The area is located, partly within the wildland-urban interface, north and northeast of the community of Concow, about 25 miles north from the City of Oroville, CA and 25 miles east from the City of Chico, CA (See Vicinity Map, Map 1). The area is in the Sierra Nevada geomorphic province and the Sierra Nevada Foothills Ecological Section (M261F) as categorized by CAL FIRE. This document analyzes portions of Mount Diablo Meridian, Township 23 N., Range 04 E., Sections 24-27 and 35; and T. 23 N., R. 05 E., Section 30. APNS analyzed within this document are: 058-110-018-000, 058-110-011-000, 058-110-012-000, 058-110-015-000, 058-120-001-000, 058-120-009-000, 058-120-013-000, 058-120-011-000, and 058-070-001-000. For more details, see Land Use Map (Map 2) and the Land Use Table under Impact LU-1. Adjacent lands are both publicly and privately owned and used for recreation, timber management, electrical transmission and communications infrastructure, wildlife habitat, and watershed protection. The Town of Pulga is located at the bottom of the Flea Valley watershed, about three-quarters of one mile away from the project area analyzed under this document.

BACKGROUND AND NEED FOR THE PROJECT

The project is a 1,174-acre fuels reduction and ecological enhancement effort situated within the Flea Valley (North Fork Feather River) and Concow Creek (West Branch Feather River) watersheds. This area is comprised of unique, rugged geology where the granite of the northern Sierra Nevada Batholith alternates with belts of ultramafic rock (i.e. serpentine) that generally arches in a northwest-to-southeast orientation. The perimeter of the project area is, in part, accessible by Rim Road, Concow Road and Flea Valley road. However, with the exception of natural-surface routes intermittently maintained to access timber management plots and to access the PG&E powerlines that bisect Flea Valley, there are no roads accessing the interior of the project. The terrain is rugged and extremely steep.

The project area is adjacent to the point of origin of the 2018 Camp Fire, and the fuels in the project area helped drive that wildfire's explosive growth in the early morning hours of November 8, 2018, eventually resulting in the loss of 85 human lives across Concow, Yankee Hill and Paradise as well as the destruction of some 19,000 structures. Several factors contributed to the extreme fire behavior of Nov 8, 2018, and one of them is believed to be the unmanaged, even-aged chaparral fuels that had regrown in the project area after the 2008 fire.

Pyrodiversity is the state of diverse fire regimes nested together in close proximity on a landscape, a condition often described as "a fine-grained mosaic" of fuel types. This fine-grained mosaic, wherever it occurs around the world, supports high levels of biodiversity and cultural diversity as well. Since fires change in intensity and behavior every time their fuel type

changes, pyrodiversity tends to be a self-reinforcing condition. When a large landscape converts to a single fuel type, however, as managers believe would happen in the project area if no management is undertaken, then the landscape tends to burn all at once in the same way. The resulting "pyromonotony" is also self-reinforcing.

Decades ago, the project area would have been characterized by a mosaic of mixed-coniferous forest, small meadows, serpentine communities, and chapparal. However, after a long period of fire suppression followed by two high-severity fires in ten years (one in 2008 and one in 2018), the vegetation type for 90% of the project area has converted to a large, contiguous even-aged brushland, with a strong resprouting oak component but virtually no surviving conifers. This large even-aged brushland would be expected to support a chapparal-like fire regime (i.e., supporting a large high-intensity fire every 10-20 years, rather than a patchwork of smaller self-limiting or mixed-severity fires).

Due to the project area's fire history, its topography and well-known strong winds, and its strategic location in the wildland-urban interface between the Plumas National Forest and the communities of Concow and Paradise, it has been identified by CAL FIRE and the Plumas National Forest as a critical location for fuels reduction activities. The outcome of these fuels reduction activities should be a lighter and finer-grained mosaic, compared to the large even-aged brushfield that will likely result if no action is taken.

PROJECT OBJECTIVES

The ultimate goal of this project is to reintroduce/restore a pyrodiverse fire regime, and to thereby mitigate risks of catastrophic wildfire by reducing the amount of existing brush and ladder fuels (grass to the dead brush to the tree canopy). Toward that goal, the project objectives are to:

1) Provide firefighters with a better chance to suppress an unplanned wildfire in the initial attack phase before it can devastate the environment
2) Enhance defensible space around community infrastructure
3) Create safer escape routes and access during a potential wildfire
4) Improve habitat for various wildlife species
5) Reduce, through the use of fire, non-native noxious weeds and other invasive plant species
6) Enhance general landscape atmosphere, appearance, and safety for the surrounding community by reducing the amount of dead and dying vegetation
7) Provide for firefighter training in firing operations and suppression techniques in a controlled environment
8) Provide an opportunity to educate the public on the uses and benefits of prescribed fire
9) Consume ground and ladder fuels while minimizing scorch and damage to the overstory (in the few remaining patches where it exists)

10) Foster desirable new overstory where none currently exists.

Accomplishing these objectives may require starting with preparatory treatments (hand/mechanical/pile burn) before ultimately proceeding to the low intensity broadcast burn. Prescribed firing will be a combination of hand and aerial ignitions. A typical pattern is perimeter hand ignition and interior aerial ignition. Ladder fuels will be either consumed or scorched. Where slope and access permit, mastication and grazing may be utilized to prepare the site for prescribed fire implementation; however, the acreage available for these pre-treatments is severely limited by terrain. Mechanical treatments will consist of dozer and excavator piling, mastication, and chipping. Mastication will be conducted using a combination of excavators, feller bunchers, and skid steers, with masticator heads and dedicated tracked masticators. Chipping may include the self-propelled tracked variety as well as the typical tow behind. The use of heavy equipment will be confined to limited areas of operation. (See Map 7.) (Heavy equipment will only be used on slopes less than 50% (SPR-GEO-7), which is a very small amount of the project area. Mastication may also be done on roadside areas within the arm's reach (or about 20') from a masticator sitting on the roadbed.) Prescribed herbivory (grazing) may be used in some areas but will likely not be extensively used on private lands under this document because the steep slopes make it too difficult to confine the animals as needed. The decision of which combination of burning, mechanical, and manual treatments will be implemented will depend on the environmental setting and conditions within each of the treatment areas. See Map 8 (Slope Map, p. 61).

PROJECT START DATE

Fall 2023

PROJECT DESCRIPTION

The project would reduce fuels, improve access and safety for fire fighting personnel, and improve forest/woodland health using primarily prescribed fire. To ensure the fire can be applied and contained in a way that meets ecological and public safety objectives, a variety of ancillary treatments will be used, such as: mechanical treatments, hand treatments, pile burning, prescribed fire, herbicide treatments, and road maintenance. Means of shrub and small tree removal would be selected based on careful analysis of current site conditions including weather, time of year, and the presence of sensitive cultural or biological resources, as described in this document and its Appendix A. Usually, more than one tool/technique would be present on site at a time so that operations can be carefully optimized for site conditions. Management prescriptions for these techniques are described below:

<u>Mechanical Treatments</u>

Mechanical treatments can be used to thin forest stands, reduce fuel loading, reduce ladder fuels and maintain roads. Mechanical treatments include chippers, masticators, excavators, and bobcats. Mechanical treatments can be very efficient for covering the ground and manipulating large vegetation; however, they are only usable on slopes less than 50%, which is a fraction of the project area. Mastication may also be done on roadside areas within the arm's reach

(usually about 20') from a masticator sitting on the roadbed.

The project proponent will stabilize soil disturbed during mechanical treatment (and/or maintenance) with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical treatment activities could result in substantial sediment discharge from soil disturbed by machinery, then 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 (which is most of the project area), 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. Mechanical treatments would not be used within the WLPZ (SPR-HYD-4).

Every effort will be made to minimize impacts by limiting entries, turns and operations to dry periods when/where species of special concern are not present and/or when they are not particularly vulnerable.

Mechanical treatment would be used both as a first-entry and as a maintenance treatment, as often as needed for the life of the project, which is expected to be 40 years.

Hand Treatments

Hand treatment tools may include but are not limited to chainsaw, trimmer, pole saw, loppers, shovel and pick, etc. These tools can be used where mechanical equipment cannot go and there is a need to discriminate between tree and shrub species removed.

On steep slopes, or where machine access is impractical, fuels would be reduced by hand crews opening long hand-cut transects and piling brush for later burning when conditions are optimal.

Hand treatments will be allowed within the WLPZ and other sensitive areas, as they cause the least amount of disturbance to the ground.

Hand treatments would be used both as a first-entry and as a maintenance treatment, as often as needed for the life of the project, which is expected to be 40 years.

Pile Burning

Pile burning may be used in conjunction with mechanical and hand treatments to reduce ground fuel loading. Pile burning is used to eliminate overstocked vegetation from the natural system and thus increase fire resilience.

Pile burning would be used as a maintenance treatment, as often as needed for the life of the project, which is expected to be 40 years.

Prescribed Fire

Prescribed fire is a very cost and time efficient management tool. The native species within the project boundary have all evolved with and are adapted to frequent fire intervals. Using patchy, mixed-intensity, more frequent prescribed fires allows native species to thrive. All prescribed fires will be subject to local and state regulation to maintain air quality and reduce fire escape risk.

Prescribed fire would be used as a first-entry where conditions are safe to do so, and as a maintenance treatment, as often as needed for the life of the project, which is expected to be 40 years.

Prescribed grazing

Livestock grazing can sometimes be utilized to reduce ladder fuels and forest shrub density while promoting ecological objectives. Livestock have historically been used in parts of the watershed. However, the use of prescribed grazing in the project area is challenging due to steep rugged slopes, strong predation pressure which selects for heavier animals that may do more resource damage, and the existence of extremely hard-to-access botany control areas, especially on adjacent federal lands that aren't possible to fence off from the private lands. For example, the adjacent federal lands' NEPA document explicitly forbids grazing on certain remote, ecologically important serpentine lands that are in the middle of the watershed and almost inaccessible to humans.

However, in the northwestern and northeastern portions of Phase 1, there are some areas of land that are under 50% slope, adjacent to a road, and on private lands. Grazing can be authorized on those areas as long as the animals can be completely confined. Prescribed grazing, where conditions allow, could be used both as a first-entry and as a maintenance treatment, as often as needed for the life of the project, which is expected to be 40 years.

Road Maintenance

Road maintenance is necessary as management activities take place and equipment is moved around. The entire project takes place on private or County-maintained dirt/gravel roads that require seasonal and annual maintenance. Road maintenance will include maintaining current roads and, in places, possibly opening pre- existing logging roads for equipment and personnel access. These roads will likely need some work for hydrologic disconnect and surface grading following management activities and prior to the wet season. This road maintenance and improvement will assist wildfire fire fighting personnel with safe ingress and egress should a wildfire occur in the area. No new road-building using public funds is authorized by this document. The private land owners may, as before, build new roads on their own property at their own expense after obtaining all necessary permits.

ENVIRONMENTAL SETTING OF THE PROJECT REGION

The project area is in the Feather River watershed in the northern Sierra Nevada. Lands within the project area drain to both the West Branch of the Feather River and the North Fork of the

Feather River, which meet in Lake Oroville and ultimately flow into the Sacramento River. The watershed is the ancestral home of Kojomkawi (*i.e.*, Konkow) speaking peoples represented today by several bands within the county and surrounding areas. Members of those bands continue to maintain a relationship with this landscape as a place of residence, ceremony, harvesting, stewardship, and other traditional activities.

The region has a Mediterranean climate with rainy, mild winters and extremely hot, dry summers. Annual precipitation averages between 40-60 inches, followed by a 6-to-9-month dry season. The wet season produces vigorous vegetation growth that may be subject to seasonal drought, and prone to fire. California native plants have evolved with relatively frequent fires, and in many cases require fire or fire byproducts to remain healthy or to reproduce. This fire history includes lightning and anthropogenic sources, and it is certainly true for the Feather River Watershed. Frequent burning by local Indigenous peoples created a landscape that was fire-maintained by low to moderate intensity fires that self-regulated. According to historical accounts, woodland conditions were historically open with grass and herbaceous undergrowth and scattered shrubs, which apparently resulted in a fire resistant and resilient landscape. However, fire suppression policies that have been in place for more than a century contributed to a drastic increase in the density of small trees, the closure of the canopy, and eventually the fueling of the uncontrollable wildfires that have characterized the fire regime of the early 21st century.

The first high-severity fire to affect the project area was the BTU Lightning Complex in 2008. That fire was sparked by lightning and augmented by suppression backburns. This fire resulted in mortality for many conifers as well as crown mortality in many of the hardwood trees, which later regenerated from basal sprouting. The second high-severity fire to affect the project area was the Camp Fire in 2018. That fire was caused by malfunctioning PG&E infrastructure. That fire resulted in mortality for almost all conifers within the project area, and also re-top-killed the surviving hardwood trees, which are currently regenerating from basal sprouting. The resulting vegetation community still exhibits standing dead biomass across most of its extent. The entire project area has been designated by CALFIRE as a "very high" fire hazard severity zone (CAL FIRE 2022).

DESCRIPTION OF THE LOCAL ENVIRONMENT

Elevations range from just over 4,200 feet at the summit of Flea Mountain to just under 2,200 feet at the southern end where Flea Valley Creek exits the project area. The soils within the project area have texture ranging from loamy through rocky and can be shallow to moderately deep. The 1,174-acre project area, based on the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationship System (CWHR) would have been classified as primarily Sierran Mixed Conifer (SMC) and Montane Hardwood Conifer (MHC) prior to the major disturbance of the 2008 and 2018 fires. Currently, it would be classified as montane chapparal (MCP). Conifer tree species historically present include Ponderosa pine, Douglas fir, and incense cedar. Hardwoods include black oak, madrone, and dogwood. Shrub species

include manzanita, ceanothus, poison oak, hazel, elder, and Himalayan and California blackberry. The ground cover is a diverse mix of annual and perennial grasses and wildflowers, mostly native.

Some of the project area is very steep, including vertical rock outcrops classified as Barren (BAR), consisting primarily of rock with scattered shrubs, forbs, and grasses. Some perennial springs still run in the eastern reaches of the Flea Valley Creek watershed. Seasonal seeps and ephemeral wetlands may develop after prolonged rainfall.

CURRENT LAND USE AND PREVIOUS IMPACTS

Until the late nineteenth century, the site was primarily used by Indigenous peoples as part of their daily lives. Based on artifacts remaining in the area and on oral histories, the area's first residents maintained a more open, sunny mixed conifer/oak woodland than is common today. They used regular, low-intensity fire to do so. The chaparral communities that did exist were maintained in a fine grain mosaic interspersed with grasses and forbs. This land management strategy was altered by American settlement. In the late 1800s and 1900s, waves of settlers arrived to ranch, mine, and log. Some settlers adapted the Indigenous practice of applying regular fire to the land, but as the area was more intensively converted to private homesteads and especially to timberland, the modern pattern of thorough fire suppression began to transform the landscape into the more densely timbered and brushy foothills we know today.

ENVIRONMENTAL PERMITS

The proposed project will require the following environmental permits and/or will require compliance with the following state regulations:

- Smoke Management Plan(s) approved by Butte County Air Quality Management District
- Prescribed Burn Plan(s) approved by project proponents and landowners
- Air District Asbestos Dust Control Plan (SPR AQ-5), developed in consultation with BCAQMD prior to implementation, unless (1) no ground-disturbing activities take place on NOA soils OR (2) BCAQMD finds project is exempt under 17 CCR Section 93105 due to remoteness.

AGENCY/INTERGOVERNMENTAL CONSULTATION AND PUBLIC COMMENT

First round of comments/consultation: 2021

In June 2021, as part of the CalVTPEIR project-specific-analysis process, the California Department of Fish and Wildlife (CDFW) & the Central Valley Regional Water Quality Control Board (CVRWQCB) were consulted and asked to provide input on the treatments.

CDFW required no permits as long as no culverts or new stream crossings would be installed. No new culverts or stream crossings are part of the project. CDFW provided a list of 8 recommendations to prevent impacts to sensitive fish and wildlife species and their habitat. One recommendation did not pertain to the project because it only related to installment of culverts or temporary crossings. The other seven recommendations were either already part of the project's SPRs, or were integrated into them, as follows:

1.) CDFW requested SPR-BIO-12 be revised so the interval between nesting bird surveys and project work be no more than 3 days; this was done
2.) CDFW recommended staffing fuel reduction crews with personnel experienced with biological resources monitoring that will survey ahead of crews to identify sensitive species and habitats that may have not been discovered during pre-project surveys (i.e. nesting/denning wildlife, wetlands, streams, etc.). The staff identified should have the authority to stop or redirect project-related activities to avoid and minimize impacts to sensitive species and habitats. We added this language to SPR-BIO-2.
3.) CDFW recommended a training program that was already integrated into the project through SPR-BIO-2.
4.) CDFW recommended guidelines around maintenance or refueling of vehicles or equipment that were already part of SPRs HAZ-1 and HYD-4; CDFW recommended placing drip pans or absorbent materials under equipment when performing maintenance, refueling, and when not in use, a recommendation which was added to SPR HAZ-1.
5.) CDFW recommended guidelines about lighting burn piles carefully to allow listed wildlife to escape that were added to MM-BIO-2b.

6.) CDFW asked that WLPZs be flagged and avoided, a measure which was already incorporated into SPR-HYD-4.
7.) CDFW further asked that wetlands also be flagged and avoided, a measure we added to SPR-HYD-4.

CVRWQCB required no permits and offered no recommendations, since projects determined to be consistent with the CalVTPEIR are also deemed to have satisfied the requirement to submit a ROWD [Report of Waste Discharge], and General Order WQ 2021-0026-DWQ (SRWCB 2021) permits the discharge of vegetation treatment waste from projects that are in conformance with the CalVTPEIR. When the project's CEQA strategy switched from CalVTPEIR to a Mitigated Negative Declaration, CVRWCB was re-consulted and their comments were incorporated (see below).

The Native American Heritage Commission (NAHC) was contacted on February 25, 2021, to request a Sacred Land File (SLF) search and a list of appropriate Native American tribal contacts for the proposed project. Letters requesting input and recommendations were sent to the following individuals identified by the NAHC on March 29, 2021:

- Jessica Lopez, Chair of the Konkow Valley Band of Maidu
- Guy Taylor, Mooretown Rancheria of Maidu Indians
- Benjamin Clark, Chair of the Mooretown Rancheria of Maidu Indians.
- In addition to the contacts provided by the NAHC, Mr. Mathew Gramps-Williford of the Konkow Valley Band of Maidu by the RCD was contacted.

  Mr. Matthew Hatcher responded via letter on behalf of Mr. Guy Taylor and Mr. Benjamin Clark. Mr. Hatcher stated that the Rancheria was aware of previously documented cultural resources within the project area and requested to be contacted if tribal cultural items or Native American human remains were encountered during the field survey.

  Mr. Gramps-Williford was engaged in an email exchange in February of 2021; it was agreed that he would be kept informed of any significant finds and ultimately would be provided a copy of documentation for the Konkow Valley Band's records. Mr. Gramps-Williford continued to work directly with the project proponent's Unit Forester, Dave Derby, to further delineate and identify sites in the field so they could be properly avoided.

  Tribal consultation was conducted by Solano Archeological Services on behalf of the Butte County Resource Conservation District.

Second round of comments/consultation: 2023

In spring 2023, when BCRCD reworked the stalled CalVTPEIR-PSA document into an IS-MND, BCCRCD conducted a new round of public, agency, and Tribal engagement. During the 30-day comment period between May 5 and June 5, 2023, the following comments were received:

- **Konkow Valley Band of Maidu Indians:** On May 18, 2023, Tribal Historic Preservation Officer Mr. Matthew Gramps-Williford, met with Ms. Wolfgang Rougle of BCRCD in Oroville. Gramps-Williford and Rougle coordinated maps, confirmed selected tribal resources would be outside the project boundary, and added project-specific language as the new SPR-CUL-9. This language specifies how crews should react if they discover previously unknown tribal cultural resources in the course of various treatment activities.
- **California Department of Fish and Wildlife:** On June 1, 2023, Senior Environmental Specialist Ms. Amy Kennedy submitted comments in an email to BCRCD. The comment letter contained 3 clarifications:
  (a) It clarified situations under which the implementing agency is required, pursuant to Fish and Game Code 1602, to notify CDFW prior to altering any river, stream or lake (including streams that are dry part of the year). This language was added as SPR HYD-7.
  (b) It clarified that species which are candidates for CESA listing (e.g., certain bumblebee species) are given full CESA protection as if they were listed. It provided language to this effect with which to modify MM-BIO-2g.
  (c) It clarified that Fish and Game code 3503 prohibits the take of bird nests. Infeasibility of a given avoidance action cannot over-ride the Fish and Game Code 3503, or the Migratory Bird Treaty Act, therefore SPR-BIO-12 has been re-written to clarify how take should be avoided by pre-construction surveys and biological monitoring.

- **CAL FIRE:** On May 23, 2023, Butte Unit (BTU) Forester Mr. Dave Derby submitted comments to BCRCD. The comment letter raised 5 issues:
  (a) It pointed out that approximately 2.6 acres of land in parcel # 058-120-009-000 (owned by SPI) had been unintentionally omitted from certain project maps and the land use table. The land is section 35, T23N, R4E, MDBM. The Project Location, Map 2, and land use table have been updated accordingly.
  (b) It asked for clearer instructions on how to record cultural/historical site information that may be revealed after the completion of the report prepared by Sonoma Archaeological Services. In response, BCRCD added clarifying language to the new SPR-CUL-9.
  (c) A typo in Cultural Resources section, item c, was identified; it has been corrected.
  (d) Additional areas of past geological instability were identified by BTU (based on a review of LiDAR data) and a map of those areas was provided. These maps were added to the section on Geology/Soils.
  (e) CAL FIRE BTU stated the draft IS-MND's slope map was inaccurate and overstated the areas of slope greater than 50%. CAL FIRE BTU provided an alternative map. BCRCD accepts the new map and reproduces in this document as Map 8.

- **Central Valley Regional Water Quality Control Board:** On June 5, 2023, Engineering Geologist Mr. George Low submitted comments to BCRCD. The comment letter raised 2 issues:
  (a) Asked for clarification on the duration of post-implementation BMP monitoring and maintenance activities; this was added to SPR-GEO-4.
  (b) Asked that CVRQCM staff be provided with a project implementation schedule when available and notified before activities begin in each unit; this was added as new SPR GEO-9.

MITIGATION MEASURES

The mitigation measures listed in Appendix A will be implemented to avoid or minimize environmental impacts. Implementation of these mitigation measures will reduce the environmental impacts of the proposed project to a less than significant level.

SUMMARY OF FINDINGS

BCRCD prepared an IS-MND to assess the project's potential effects on the environment and appraise the significance of those effects. Based on this IS-MND, it has been determined that the proposed project will not have any significant effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project will have no effect related to Aesthetics, Agricultural Resources/Forestry, Energy, Land Use Planning, Mineral Resources, Noise, Population and Housing, Public Services, Utilities and Service Systems, and Mandatory Findings of Significance.

2. The proposed project will have a less than significant impact in the areas of Air Quality, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Recreation, Transportation, and Wildfire.

3. Mitigation is required and included to reduce potentially significant impacts related to Biological Resources, Cultural Resources including Tribal Cultural Resources, and Greenhouse Gas Emissions.

The Initial Study-Environmental Checklist included in this document discusses the results of resource-specific environmental impact analyses that were conducted by BCRCD. This initial study revealed that potentially significant environmental effects could result from the proposed project. However, project proponents have revised project plans and have developed mitigation measures that will eliminate impact or reduce environmental impacts to a less than significant level. BCRCD has found, in consideration of the entire record, that there is no substantial evidence that the proposed project as currently revised and mitigated would result in a significant effect upon the environment.

Final Mitigated Negative Declaration for the Proposed Concow Pyrodiversity Project

INITIAL STUDY-ENVIRONMENTAL CHECKLIST

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

Environmental Factors Potentially Affected

Y	N		Y	N	
	X	Aesthetics		X	Mineral Resources
	X	Agricultural Resources and Forestry		X	Noise
	X	Air Quality		X	Population and Housing
X		Biological Resources		X	Public Services
X		Cultural Resources including Tribal Cultural Resources		X	Recreation
	X	Energy		X	Transportation
	X	Geology and Soils		X	Utilities and Service Systems
X		Greenhouse Gas Emissions		X	Wildfire
	X	Hazards and Hazardous Materials		X	Mandatory Findings of Significance
	X	Hydrology			
	X	Land Use and Planning			

Determination

On the basis of this initial evaluation:

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

[X] I find that although the proposed project COULD have a significant effect on the environment, there WOULD NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.

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

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

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

David E. Lee — 6-15-23

David E. Lee, Board Chairman — Date
Butte County Resource Conservation District

Environmental Checklist and Discussion

The following section analyzes the potential environmental effects of the project on each of the resource areas for which analysis is mandated by the California Environmental Quality Act. The term "SPRs" refers to Standard Project Requirements, a term of art favored by CAL FIRE and Ascent Environmental (the private consultancy which authored most of the CalVTPEIR). "SPRs" mean project design features which are required to be incorporated into any project that hopes to be consistent with the CalVTPEIR. Essentially, it means measures built-in to the project description (as opposed to mitigation measures, which are tacked on afterward). Because this project was originally designed to comply with the CalVTPEIR, it is chock-full of SPRs and BCRCD saw no reason to remove them. "SPRs" are simply the CALFIRE/Ascent Environmental synonym for the term "IDFs" (integrated design features) or "BMPs" (best management practices") which are favored by some other agencies.

In practice, SPRs are just as important to adhere to as mitigation measures. Because they need to be documented and enforced just like mitigation measures do, they have been included in the Mitigation, Monitoring and Reporting Program (Appendix A) just like mitigation measures.

AESTHETICS AND VISUAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Except as provided in Public Resources Code § 21099, would the project have a substantial adverse effect on a scenic vista ***or*** would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The proposed treatments would occur on properties that do not provide public viewpoints. However, many of the treatment areas are adjacent to public lands that may provide public views of the treatment areas. The proposed project area is located directly west of California State Route 70, which is an eligible scenic highway according to the California Scenic Highway Program. The burn scar will not be visible from the highway, however smoke from prescribed burning will be visible. Additionally, this highway has not yet been officially designated as a scenic resource. Therefore there are no designated scenic highways with views of the project area (Caltrans 2019). Smoke from prescribed burning could also be visible from public viewpoints. There are no public recreational areas or facilities at or near the project area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Except as provided in Public Resources Code § 21099, <u>in non-urbanized areas</u>, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is <u>in an urbanized area</u>, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒

See answer to (a)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Except as provided in Public Resources Code § 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Prescribed fire activities associated with the project could create a faint temporary glow on some nights, but this effect will be transient and will only occur after public notification. The few residents who live close enough to notice the glow, if any, will have been notified to expect it and adjust their nighttime activities accordingly. The SPR applicable to this resource concern is AD-4 (notification of neighbors before commencing burn activities).

AGRICULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

The project is not located on land identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒

No land in the project area is zoned for agricultural use or is under a Williamson Act contract.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	☐	☐	☐	☒

The project is on land zoned for timber production and will not result in any zoning change.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

The project does not propose to remove trees from the overstory. Managing vegetation fuels in the understory will not affect the forest stand conditions directly or indirectly in a way that could result in conversion to a non-forest use. Vegetation types within the treatment area include post-fire seral shrubland, post-fire black oak woodland, and a small remnant patch of Sierran-mixed conifer. Wildfires, including the Camp Fire of 2018 and the BTU Lightning Fire of 2008, have led to a landscape that is at risk of conversion away from forest. Vegetation management has the potential to improve the forest stand conditions by removing competitive vegetation and scarifying the forest floor conditions allowing for natural seeding of tree species; in other words, over time, the treatment could result in more forest, but not less.

e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project takes place entirely onsite and requires no improvement or expansion of auxiliary facilities; therefore, the project has no foreseeable indirect, offsite, or cumulative impacts that could degrade or convert forestlands or agricultural lands.

AIR QUALITY

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Project prescribed burning would produce PM10. Prescribed burning is regulated by the Butte County Air Quality Management District (BCAQMD) in compliance with the state smoke management plan, Title 17. Prescribed burn projects must submit a Smoke Management Plan to BCAQMD for review and approval. The plan is developed to minimize air quality impacts of the project. Burning is done on approved burn days as determined by BCAQMD. This process ensures that there are not any significant smoke impacts to public health from the project.

Use of vehicles, mechanical equipment, and prescribed burning during treatments would result in emissions of criteria pollutants that could exceed California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) thresholds. The measures that have been determined by CAL FIRE to be feasible, and would be implemented to reduce emissions, include: use of gasoline-powered equipment and encouraging carpooling to the project site. Equipment meeting Tier 4 emission standards, Best Available Control Technology for emission reductions of NOX and PM on equipment and the use of renewable fuel would be implemented to the extent feasible. SPRs applicable to the proposed treatments are AQ-3 (burn plan), and AQ-2 (smoke management plan).

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The air in Butte County does not meet the State or federal health-based standards for ozone or fine particulate matter (PM2.5). Throughout the Northern Sacramento Valley Air Basin the major contributor to air pollution is the motor vehicle.

Federal standards have been established for seven pollutants:

1. Carbon monoxide
2. Lead
3. Nitrogen dioxide
4. Ozone
5. Respirable particulate matter less than 10 microns in diameter (PM10)
6. Fine particulate matter less than 2.5 microns in diameter (PM2.5), and
7. Sulfur dioxide

California state standards exist for all of these, plus four more:

1. Sulfates
2. Hydrogen sulfide
3. Vinyl chloride (chloroethene), and
4. Visibility reducing particles

Table 1: Butte County – State and Federal Ambient Air Quality Attainment Status:

Pollutant	State Designation	Federal Designation
1-hour ozone	Nonattainment	—
8-hour ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10	Nonattainment	Attainment
24-Hour PM2.5	No Standard	Attainment
Annual PM10	Attainment	No Standard
Annual PM2.5	Nonattainment	Attainment

Source: Butte County AQMD 2018

There are no class I airsheds within the project area.

Effects to air quality and visibility could result from prescribed burning; and a very small increase in air pollutants could result from equipment use under the proposed action.

Effects to air quality could result from fugitive dust caused by project implementation. Standard project requirements (SPRs) will be implemented in order to minimize impacts. Fugitive dust generally quickly settles back down to the ground and typically does not spread far downwind.

Potential adverse effects from equipment used in project implementation would be very small, as

the equipment would mostly operate in remote areas that are not occupied. Limited amounts of equipment would be used over a broad area and equipment emissions would disperse quickly.

Effects to visibility from project prescribed burning would be temporary. They would be minimized by burning only during designated burn days when adequate weather conditions would disperse smoke quickly. Most prescribed burning would occur on a single day or over several days. Fire managers are required by the air district to plan for controlling smoke emissions through contingency planning as part of the smoke management plans.

Project emissions would temporarily increase air pollutants in the airshed and Butte County. However, their direct, indirect and cumulative effects would be regulated by the BCAQMD in order to prevent adverse impacts and exceedances of health standards. The proposed prescribed fire treatments would reduce future potential wildfire smoke.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Smoke from prescribed fire can be a serious acute pollutant; however, it is regulated by the Butte County Air Quality Management District (BCAQMD). Burning would not proceed without a valid Smoke Management Plan approved by BCAQMD. Due to the above factors and the remoteness of the location, the project will not expose sensitive receptors to substantial pollutant concentrations.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

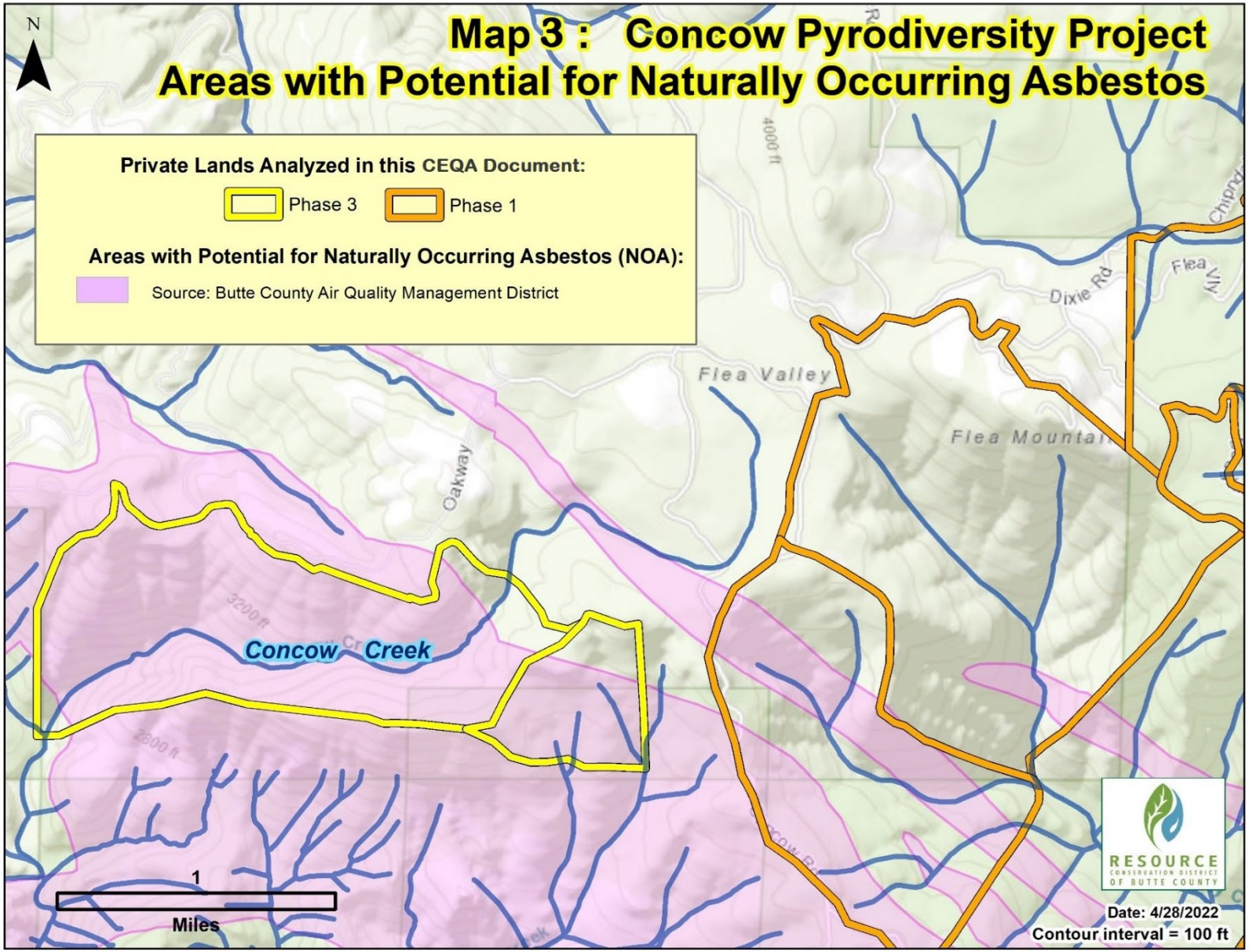
The only source of odor from the project would be smoke, discussed above.

e) Would the project result in fugitive dust, including that containing naturally occurring asbestos (NOA)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Use of vehicles, mechanical equipment, and prescribed burning during treatments would involve ground disturbing activities. CAL FIRE's typical environmental guidance is that that the project proponent avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. The proposed project area does include areas known to the State of California to be likely to contain NOA (see e.g. California Geological Survey Map Sheet 59 and CA Dept. of Public Health web viewer.) Locally produced NOA data stored at the Butte County Air Quality Management District was found to be more detailed and reliable than the statewide layer, so the local data was used. A georeferenced PDF map of the NOA areas in the project area accompanies this document (map 3).

SPRs applicable to this treatment are AQ-5 (avoid naturally occurring asbestos) and AQ-4 (minimize dust), and they apply to all treatments including maintenance. In accordance with SPR AQ-5, no ground-disturbing treatments would occur in these areas unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area, as applicable. 17 CCR Section 93105 provides an exemption (at BCAQMD's discretion) for remote areas. The local Air Pollution Control Officer was consulted and the project was found likely to be exempt from the requirements of 17 CCR Section 93105 due to the remoteness of its location. Any NOA-related guidance provided by BCAQMD will be followed.

Map 3: Asbestos Map



BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Sensitive Biological Resources: Wildlife and botanical surveys were conducted for this project and the results are summarized in this section. Both reconnaissance (i.e., data review) and protocol-level (i.e., on-the-ground) surveys were conducted. The purpose of these surveys is to assess the effects of the project on several categories of sensitive species. This includes federally threatened, endangered, proposed, and candidate species, as well as California threatened, endangered, species of special concern, and rare (CRPR-ranked 1 and 2) plant species[3].

After reviewing the CNDDB and available endangered species data from the USFWS and CDFW and comparing this with records maintained by Sierra Pacific Industries and with the results of field surveys in 2021, 14 sensitive species of plants and 17 sensitive species of animals are known or reasonably expected to be present within the project area. These species are identified in Table 2 (Wildlife) and Table 3 (Botanical).

[3] Species listed as endangered by the U.S. Fish and Wildlife Service (Federal) and California Department of Fish and Wildlife (State) are species currently in danger of extinction throughout all or a significant portion of their range. Species listed as threatened are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. A proposed species is any species that is proposed in the Federal Register to be listed as a threatened or endangered species under the Endangered Species Act (50 CFR 402.03). A candidate species is a species for which the U.S. Fish and Wildlife Service has on file enough information to warrant or propose listing as endangered or threatened. California species of special concern are wildlife species at risk of becoming threatened or endangered. The California Native Plant Society (CNPS) has developed an inventory of rare plants that is widely accepted as the standard for information on the rarity and endangerment status of California flora and the ranks 1 and 2 are the rarest of the 4 ranks. See p 30 for an explanation of the ranks.

Table 2: Wildlife species known from, or possibly occurring, within the project area as a result of the CNDDB Query

WILDLIFE	STATUS			HABITAT
COMMON NAME **SCIENTIFIC NAME**	**FED**	**STATE**		
Foothill Yellow-Legged Frog Rana boylii	N	E	SSC	Riverine and Lacustrine
	-			
Bald Eagle Haliaeetus leucocephalus	DL	E	FP	Large trees adjacent to riverine and lacustrine
	-			
California Spotted Owl Strix occidentalis	N	N	SSC	Late Seral Closed Canopy Coniferous Forest
	-			
Fisher Pekania pennanti	N	N	SSC	Late Seral Closed Canopy Coniferous Forest, Tree cavities
	-			
Silver-haired Bat Lasionycteris noctivagans	N	N	-	Coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats
	-			
Western Pond Turtle Actinemys marmorata	N	N	SSC	Riverine and Lacustrine
	-			
Golden Eagle Aquila chrysaetos	N	N	FP, WL	Rolling foothills, mountain areas, sage juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
	-			
American peregrine falcon Falco peregrinus anatum	DL	DL	FP	Low- and mid-elevation riparian deciduous woodlands as well as wet and dry mountain meadows
	-			
California Black Rail Laterallus jamaicensis coturniculus	N	TH	FP	Marshes
	-			
Great gray owl Strix nebulosa	N	E	-	Late Seral Closed Canopy Coniferous Forest adjacent to wet meadows
	-			
Gallaway's amphipod Stygobromus gallawayae	N	N	-	Aquatic
	-			
Steelhead-Central valley DPS Oncorhynchus mykiss irideus pop. 11	TH	N	-	Riverine
	-			
Chinook salmon- Central Valley spring-run ESU Oncorhynchus tshawytscha pop. 11	TH	TH	-	Riverine
	-			
Wawona riffle beetle	N	N	-	Occurs in riffles of rapid clear mountain streams at moderate elevations

Atractelmis wawona				(2,000 to 5,000 ft.)
	-			
Western Bumblebee Bombus occidentalis occidentalis	N	CE		
Crotch's Bumblebee Bombus crotchii	N	CE		
Northern American porcupine Erethizon dorsatum	N	N	-	Coniferous, deciduous, and mixed forests. In the west, it can be found in scrubby areas.
	-			
Yuma myotis Myotis yumanensis	N	N	-	Moist and dry forests, riparian zones, grasslands, shrub-steppe, and deserts, and are closely associated with rivers, streams, ponds, and lakes
	-			
Goshawk Accipiter gentilis	N	N	-	Coniferous and mixed forests. Generally restricted to wooded areas but may be in relatively open woods or along edges. Often more common as a breeding bird in mixed woods than in pure stands of coniferous trees.
	-			

Species Status Identifiers Used on the Table

DL– Delisted **E** – Endangered **CE** – Candidate Endangered **CTH** – Candidate Threatened **TH**– Threatened **PTH** –Potential Threatened
N – None **NL** – Not Listed **R** – Rare **WL** – Watch List **SSC** – DFG Species of Special Concern
FP- DFG Fully Protected (legally protected)

Table 3: Plant species known from, or possibly occurring, within the project area as a result of the CNDDB Query

PLANTS (PROVIDED BY CDFW)	STATUS		HABITAT	
COMMON NAME **SCIENTIFIC NAME**	**FED**	**STATE**	**CRPR LIST**	
Jepson's onion * Allium jepsonii	N	N	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest. Allium jepsonii is restricted to serpentine outcrops and soils in the foothills of California's northern and central Sierra Nevada.
Lewis Rose's ragwort * Packera eurycephala var. lewisrosei	N	N	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest
Dissected-leaved toothwort * Cardamine pachystigma var. dissectifolia	N	N	1B.2	Chaparral, Lower montane coniferous forest
Chaparral sedge Carex xerophila	N	N	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest
White-stemmed clarkia Clarkia gracilis ssp. albicaulis	N	N	1B.2	Chaparral, Cismontane woodland
Mildred's clarkia * Clarkia mildrediae ssp. mildrediae	N	N	1B.3	Cismontane woodland, Lower montane coniferous forest
Closed-throated beardtongue Penstemon personatus	N	N	1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest
Ahart's buckwheat Eriogonum umbellatum var. ahartii	N	N	1B.2	Chaparral, Cismontane woodland
Caribou coffeeberry Frangula purshiana ssp. ultramafica	N	N	1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest
California beaked-rush Rhynchospora californica	N	N	1B.1	Bogs and fens, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps
Brownish beaked-rush Rhynchospora capitellata	N	N	2B.2	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest
Woolly rose-mallow Hibiscus lasiocarpos var. occidentalis	N	N	1B.2	Marshes and swamps
Butte County checkerbloom Sidalcea robusta	N	N	1B.2	Chaparral, Cismontane woodland
California satintail Imperata brevifolia	N	N	2B.1	Chaparral, Coastal scrub, Meadows and seeps, Mojavean desert scrub, Riparian scrub

California Rare Plant Ranks (CRPR):

1B Plant species rare or endangered in California and elsewhere (not protected under the federal Endangered Species Act or California Endangered Species Act)

2B Plant species rare or endangered in California, but more common elsewhere (not protected under the federal Endangered Species Act or California Endangered Species Act)

CRPR Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

* = Plant Was Found In Project Area

Potential effects on Wildlife:

Direct and Indirect Effects Common to All Wildlife Species: All proposed treatments could result in disturbance from human presence, habitat alteration, prescribed fire and noise. The duration of disturbance caused by the presence of people and machinery, may bother wildlife accustomed to lower levels of activity. Mechanized equipment may generate noise sufficient to disturb nesting wildlife and could cause nest site abandonment if conducted without restrictions. Most wildlife are able to escape fire but wildlife and young could be killed by fire if it takes place in the nesting/denning season; additionally, wildlife could be killed if nesting/denning trees are manually or mechanically felled during the nesting/denning season. This could be a ***potentially significant impact*** of the project**.** Therefore, ***Mitigation Measures BIO-2b, BIO-2g,*** and (in the unlikely event the first 2 cannot be implemented), ***BIO-2c*** provide a path to minimize effects on wildlife.

Cumulative Effects Common to All Wildlife Species: The existing condition, as of the date this analysis is written, reflects the sum of all activities that have occurred in the past. The analysis of cumulative effects evaluates the impact on wildlife from the past, ongoing, and likely future activities within the analysis area. Overall, for all species, cumulative effects could occur with incremental changes in the quantity and/or quality of habitat.

A near absence of landscape level, low- intensity surface fires contributed to increased stand densities of small diameter trees and brush over the course of the 20th century, making these areas more susceptible to high intensity wildfire and subsequent conversion to a habitat less suitable for wildlife. These habitat shifts affect species abundance and diversity of the landscape. Over time, the proposed project will build off the disturbance wrought by the two recent fires to restore a mosaic of habitats suitable for a higher diversity of species.

Cumulative effects of this project and adjacent fuels management/restoration projects and other fuels management/restoration projects in the watershed could include landscape-scale shifts in vegetation communities (generally favoring oaks and widely spaced conifers over chaparral or dense conifer forest); population increases in new or currently uncommon species as the frequency of disturbance (e.g. from mastication) increases; and changes in the fire regime relative to what has been experienced by local wildlife in the past 100 years. For example, the last century's pattern of long-term fire suppression punctuated by high-severity fires could be replaced by more frequent but lower-severity fire, or it could shift to a more frequent high-severity fire regime. Not all these effects are knowable, because they depend on whether planned projects get implemented, on whether implemented projects get maintained, and on climate change outcomes that are still not certain. However, any of these landscape-scale changes would have a mix of beneficial effects on some species and adverse effects on others

Direct and Indirect Effects To Special-Status Wildlife Species: Treatment activities and maintenance treatments could result in direct or indirect adverse effects to special-status wildlife species with suitable habitat within the treatment area, as described in the following sections.

Species Specific Determinations – Wildlife:

Northern Goshawk

Northern goshawk (Accipiter gentilis) is a non-listed special-status species that is tree-nesting and cavity-nesting. Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g.,

chainsaws) could result in disturbance of nesting northern goshawks in adjacent nesting habitat, if these activities occur during the sensitive nesting season (March 15–September 15). There is still ample goshawk habitat on unburned federal lands immediately adjacent to the SRA; indeed there is a goshawk PAC overlapping some of the federal lands in Phase 1.
If treatments are conducted further than 0.25 mile from any documented goshawk site, or within 0.25 mile of documented nest sites but outside of the season of sensitivity (i.e., March 15–September 15), then further mitigation would not be required. If a goshawk nest is identified on the project area or within 0.25 miles, then mechanical treatments, manual treatments, prescribed herbivory, and prescribed burning activities within 0.25 miles of the nest would cease during the period March 15-Sept 15.

Surveys for northern goshawk were conducted in 2021 and no active nest was found; future surveys would be conducted before starting work in suitable goshawk habitat in 2023 or 2024. Future surveys would be conducted pursuant to the Northern Goshawk Inventory and Monitoring Technical Guide (Woodbridge and Hargis 2006). If nesting northern goshawks are not identified during protocol-level surveys, then further mitigation for the species would not be required. If nesting northern goshawks are identified during protocol-level surveys, use the guidelines of a 0.25 buffer or limited operating period.

Details from 2021 goshawk surveys: No NOGOs or NOGO sign were detected at any of the selected survey stations, and no documented goshawk nests are within 0.25 miles of the project area. However, there was one incidental NOGO detection when surveyor went to near the top of Flea Mountain in Phase 1 on July 2 at 5:42 pm for an unrelated matter. A NOGO of unknown sex in adult plumage was observed flying Southeast near the mountain and high off the ground. Its initial point of detection was estimated to be at 39°49'40.3"N, 121°28'16.2" W. This is roughly 350-400' south of the PG&E tower site and within Phase 1 of the project. The NOGO gave two unsolicited wail calls, but did not alter its trajectory significantly. It continued to fly in a straight line parallel to the Flea Valley Creek until it passed out of the surveyor's sight. Surveyor suspects that the bird was simply passing through the area and using updrafts from the mountain and northern Flea Valley Rim to maintain elevation.

At times, operational safety or meeting fuels reduction objectives will necessitate cutting one or more trees above 10" dbh. If that becomes necessary, then a qualified RPF or biologist with knowledge of the northern goshawk's habitat and life history will review the area to be treated and will supervise the cutting in such a way as to ensure that the tree canopy cover within *existing suitable habitat* areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained.

Spotted Owl

Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) could result in disturbance of nesting California spotted owls (*Strix occidentalis occidentalis*) in adjacent nesting habitat, if these activities occur during the sensitive nesting season (March 1–August 15). There is still ample habitat from spotted owls on the edge of the project area; indeed, in 2021 an owl nest was identified that was close to 0.25 miles from the project boundary.

If treatments are conducted further than 0.25 mile from any documented owl nest, or within 0.25 mile of documented nest sites but outside of the season of sensitivity (i.e., March 1–August 15), then further mitigation would not be required. If an owl nest is identified on the project area or within 0.25 miles, then mechanical

treatments, manual treatments, prescribed herbivory, and prescribed burning activities within 0.25 miles of the nest would cease during the period March 1-Aug 15.

Details from 2021 owl surveys: A male, female, and two juvenile spotted owls were observed together. An additional male was also observed. Immediately prior to the third pass, starting at approximately 7:45 pm on July 3, surveyor conducted a walk-in on the last known location of the male SPOW detected during the previous visit. He responded and was found at 39°50.143' N, 121°28.311' W. He was given a mouse and tracked by surveyor in the typical pattern. This time, the male led the surveyor to a female and two juveniles, found at 39°50.226'N, 121°28.404'W. The remaining mice were given to the male, who transferred them to the female, who consequently fed them to the young. The juveniles did not appear well-flighted, and likely fledged from a nest tree within several hundred meters of their location. The location where the female and two juveniles was found is more than 0.25 miles from the project area boundary. However, since the nest could be anywhere within "several hundred meters" of the location where the female and two juveniles was found, then the nest site could be within 0.25 miles of part of the project area (see map 4).

At times, operational safety or meeting fuels reduction objectives will necessitate cutting one or more trees above 10" dbh. If that becomes necessary, then a qualified RPF or biologist with knowledge of the California spotted owl's habitat and life history will review the area to be treated and will supervise the cutting in such a way as to ensure that the tree canopy cover *within existing suitable habitat areas* will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained.

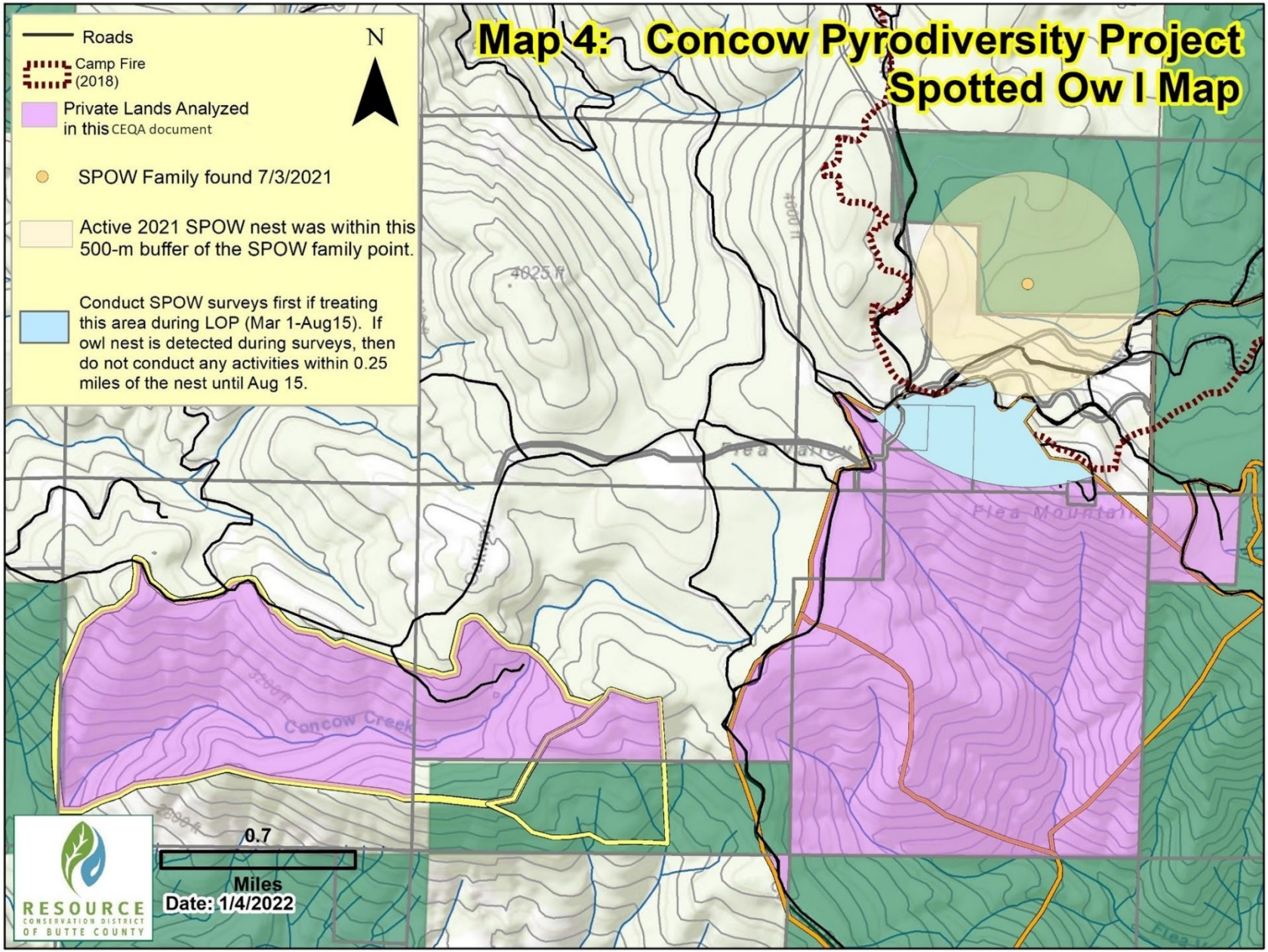
Other Special-Status Birds

Five additional special-status bird species may occur within the treatment area: Bald Eagle, Golden Eagle, American peregrine falcon, California black rail, and great gray owl. Bald Eagle, Golden Eagle, American peregrine falcon and Great gray owl are federally/state listed fully protected species that are tree-nesting and cavity-nesting wildlife. California black rail is a federally/state listed and fully protected species that is ground-nesting. Habitat suitable for these species is present within and adjacent to the treatment area. If the species are present, then treatment activities, including mechanical treatments, manual treatments, prescribed burning and prescribed herbivory, conducted during the nesting bird season (February 1- August 31) could result in direct loss of active nests or disturbance to active nests from auditory and visual stimulus (e.g. heavy equipment, chainsaws, vehicles, personnel), potentially resulting in the abandonment and loss of eggs or chicks.

Focused surveys for special-status bird nests have not yet been conducted; thus, focused nesting bird surveys for bald eagle, golden eagle, American peregrine falcon, California black rail and great gray owl will be conducted prior to treatment activities *if* project-related activities are scheduled during the nesting season (typically February 1 to August 31). In that case, focused surveys for nests should be performed within 14 days prior to the beginning of project-related activities. Surveys should look for all 5 species' nests, as well as for the nests of common raptors and other birds. Areas that will not be treated don't need to be surveyed. If nesting birds are not found, then operations can commence for the year directly following the survey work. If a lapse in project-related work of fifteen (15) days or longer occurs during the nesting season, another focused survey should be performed. If an active nest is found, an appropriate buffer shall be established around the nest site and flagged so crews avoid implementing project-related activity near the nest. The buffer for a black rail might be a different size than for a migratory songbird. Nests with buffers should be monitored to ensure that the birds are not being disturbed. If

nesting birds appear agitated by calling frequently, leaving the nest frequently, or otherwise acting in an abnormal fashion, the buffer may need to be enlarged. There will be coordination with CDFW prior to commencing work near the buffer zone of nesting birds.

Map 4: Spotted Owl Map



Special-Status Amphibians and Reptiles
A focused survey for the Foothill Yellow-Legged Frog (FYLF), *Rana boylii*, was conducted along Flea Valley Creek, Dixie Road Creek and Concow Creek. Across all three creeks, only Flea Valley Creek and Concow Creek contained *R. boylii*, for a total of 130 observed anurans. Flea Valley Creek had the largest observed population at 110 across the 4.104 km length of the creek segment, which averages to a single *R. boylii* every 0.037 km. Concow Creek had 20 observed *R. boylii* across the 2.237 km creek, averaging a single *R. boylii* every 0.112 km. The Dixie Road Creek segment surveyed was 1.28 km, and no *R. boylii* were observed through the surveyed creek. Of all 130 observed *R. boylii*, 2 were egg masses and 1 was a concentration of larvae. 127 post-metamorphic (62 juveniles/64 Adults) were observed in three different solar environments: 1) 101 in Direct sun, 2) 7 in partial shade, and 3) 19 were in shaded areas. The existing WLPZ buffer will protect this species, so it is not discussed further.

Western Pond Turtle
As described in Mitigation Measure BIO-4, WPLZs ranging from 50-150 feet will be established to avoid impacts on the wetland and riparian habitats, including the western pond turtle (*Actinemys marmorata*).

Fisher
Fisher (*Pekania pennanti*) is a cavity-nesting mammal that typically prefers cavities within large, mature trees or snags. The fisher has very specific habitat requirements that includes high canopy closure and complex forest structure with snags and downed woody debris to provide refuge from predators while moving through the forest. No fishers are known from or expected to be using the area since the Camp Fire.

Special-Status Bumblebees
2 species of special-status bumblebee, the Western bumblebee (*Bombus occidentalis occidentalis*) and the Crotch bumblebee (*B. crotchii*) have potential to occur in the Sierra Nevada Foothills Ecological Section (M261F). Both are candidates for listing at the State (CESA) level, their candidacy having been most recently reinstated 9/30/2022. The Western Bumblebee is a non-migratory, social species that nests underground and hibernates from about November to February. Once among the most common bee species in North America, its home range covers all of Northern California and extends east to the Dakotas and north into Canada. A short-tongued species, it is a generalist that can survive on a very wide range of flower species, but especially prefers *Chrysothamnus, Melilotus, Cirsium, Centaurea, Trifolium,* and *Eriogonum*.

The Crotch or Crotch's Bumblebee is a non-migratory, hibernating species that nests underground or wherever a suitable nest site can be found, has a short- to medium-length tongue, and is particularly associated with milkweed (*Asclepias*), but will forage on *Lupinus, Medicago, Phacelia, Salvia, Clarkia, Polygonum, Eriogonum,* and more. Workers are active all spring and summer but queens only fly from March through May, with queen (dispersal) activity peaking in April. When queens are flying, they are looking for new nest sites (often in abandoned rodent burrows) and can disperse at least 1.5 - 5 miles from their colony of origin. Both special-status bumblebees have suitable habitat in the proposed project area.

The project proponent will implement the following measures, as feasible:

- Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from

October through February to avoid the bumble bee flight season.

- Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.
- Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area).

A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If surveys and/or consultation determines that mortality, injury, or disturbance of listed bumble bees would still occur, and/or that degradation of occupied (or assumed to be occupied) habitat would still occur such that its function would not be maintained, an Incidental Take Permit will possibly be obtained (Fish & G. Code § 2081 (b); Cal. Code Regs., tit. 14, §§ 783.2-783.8) ***and/or*** the project proponent will implement Mitigation Measure BIO-2c, as determined by consultation with CDFW.

Special-Status Fish

Steelhead- Central Valley DPS and Chinook Salmon- Central Valley spring-run ESU are federally/state listed and fully protected aquatic fish. DPS stands for Distinct Population Segment and ESU stands for Evolutionarily Significant Unit; both terms simply mean the Central Valley population of each species is genetically distinct from populations in other drainages. However, since the construction of Oroville Dam, there has been no habitat for either species in the Feather River drainage upstream from the dam. The closest Steelhead-Central Valley DPS critical habitat is found at Little Butte Creek, which is located approximately 3 miles west of Phase 3 of the Project. The closest Chinook Salmon- Central Valley spring-run ESU critical habitat is found at Butte Creek, which is located approximately 6.5 miles west of Phase 3 of the Project (NOAA, 2021). There is no special-status fish habitat found on the project site.

Other mitigations for special-status wildlife species:

If piles are burned in the spring, cursory wildlife occupation inspections will be conducted on each pile prior to ignition. If any listed species are seen utilizing a pile, that pile will not be burned and CDFW be notified. All piles that are burned individually by hand (i.e., not burned as part of a broadcast burn) will be lit from one side while observing for wildlife evacuation, prior to full ignition.

Potential effects on Plants:

Direct and Indirect Effects Common to All Plants: Direct effects occur when plants are physically impacted by management activities. Proposed activities may affect rare plants by physical damage. Indirect effects are those that are separated from an action in either time or space. Habitat components including soils, shading, and species composition of the plant and pollinator community may directly and indirectly be altered by the proposed actions. These effects can be beneficial or detrimental to rare plants,

and may include increased soil erosion, increased light reaching the ground, introduction or promotion of conditions favorable for non- native invasive plants, effects to pollinator species, or other changes to rare plant habitats. The project carries a risk of spreading or introducing noxious weeds; however, the risk is significantly reduced by implementing the project mitigation measures for preventing and controlling these invasive species. Noxious weeds are not expected to increase in areas from disturbed treatment areas or roads and trails due to this project.

Cumulative Indirect Effects Common to All Plants:
Cumulative effects of this project and adjacent fuels management/restoration projects and other fuels management/restoration projects in the watershed could include landscape-scale shifts in access to water and sunlight (generally more of both for most species that are not removed); invasions of new weeds as the frequency of disturbance (e.g. from mastication) increases; and changes in the fire regime relative to what has been experienced by local plants in the past 100 years. For example, the last century's pattern of long-term fire suppression punctuated by high-severity fires could be replaced by more frequent but lower-severity fire, or it could shift to a more frequent high-severity fire regime. Not all these effects are knowable, because they depend on whether planned projects get implemented, on whether implemented projects get maintained, and on climate change outcomes that are still not certain. However, any of these landscape-scale changes would have a mix of beneficial effects on some species and adverse effects on others.

Direct and Indirect Effects From This Project To Special-Status Plant Species:

Project treatments (prescribed burning, manual treatment, mechanical treatment, herbivory treatment) could result in direct or indirect adverse effects to the special-status plant species with suitable habitat within the treatment area. None of these plants are currently ESA or CESA-listed. Several species with *potential to occur*—including California beaked-rush, Brownish beaked-rush, Wooly rose-mallow, Marsh claytonia, and California satin tail—are typically associated with wet areas (e.g., creekbanks, streams, wetlands, meadows). Pursuant to SPR HYD-4, Watercourse and Lake Protection Zones (WLPZs) ranging from 50 to 150 feet adjacent to all aquatic habitat (i.e., wet areas) within the treatment area will be implemented, which would avoid most adverse effects to these species. These boundaries will be delineated with brightly colored flagging, ribbon, non-toxic marking paint, and/or wood stakes.

The project area is *known to contain* four plant species that have the special status of being CRPR-ranked 1 or 2. These 4 species are Jepson's onion (*Allium jepsonii*), dissected-leaf toothwort (*Cardamine pachystigma var. dissectifolia*), Mildred's clarkia (*Clarkia mildrediae ssp. mildrediae*), and Lewis Rose's ragwort (*Packera eurycephala* var. *lewisrosei*). Maps showing these species' documented occurrences in the project area are included (map set 5).

Treatment activities, including mechanical treatments, manual treatments, prescribed burning, and prescribed herbivory, conducted during these plants' season of vulnerability could result in loss of individuals. The seasons of vulnerability for these plants are as follows:

Jepson's Onion: May 30- Aug 31
Dissected-leaf toothwort: Feb. 1-May 31
Mildred's Clarkia: Feb 1 – July 30
Lewis Rose's Ragwort: March 1- June 30

All four of these species are shade-intolerant and require open sunny areas in order to survive. Jepson's onion and dissected-leaf toothwort are serpentine specialists that only grow on naturally very sparsely vegetated ultramafic soils, where fire does not usually even carry. Therefore, these two species are not particularly likely to be harmed by fire even during their season of vulnerability, as long as ignitions and accelerants are kept at least 50' away from these populations (i.e., only backing fire allowed). However, Jepson's onion and dissected-leaf toothwort could be vulnerable to impacts from fireline construction.

Jepson's onion is a serpentine endemic that needs full sun. It uses a rocky, sparsely vegetated habitat where fire usually won't even carry. Individuals could be killed by fire during this species' season of vulnerability, if fire carried into this species' populations (which could happen if crews lop-and-scatter shrubs onto the population). The species is vulnerable to impacts from handline/fireline constructed directly through its population. The species is very rare and impacts to individuals should be avoided.

Dissected-leaf toothwort is a weak ultramafic indicator species that uses areas with dappled to partial shade. Individuals could be killed by fire during this species' season of vulnerability; however, substantial evidence exists that the population could benefit from fire (due to the reduction in shade in its habitat) even if individuals are harmed. The species is vulnerable to impacts from handline/fireline constructed directly through its population.

Lewis Rose's Ragwort is a weak ultramafic indicator species that requires dappled to full sunlight to survive and cannot tolerate being fully over-shaded by encroaching trees or brush. Individuals could be killed by fire during this species' season of vulnerability; however, substantial evidence exists that the population could benefit from fire (due to the reduction in shade in its habitat) even if individuals are harmed.

Mildred's Clarkia is a rare annual that grows in sunny openings and disturbed areas in mixed hardwood-conifer forests on granitic-derived soils in the Feather River drainage. It depends on sunny openings and ground disturbance to sustain its populations. Individuals will almost certainly be killed by fire if prescribed fire is introduced to the population during this species' season of vulnerability. However, the soil seedbank would stay unharmed by fire, available to germinate the following year; and substantial evidence exists that the population could benefit from fire (due to the reduction in shade in its habitat) even if individuals are harmed.

SPRs that apply to plant resources are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-6, GEO-7, and HYD-4.

However, none of those SPRs tell the implementer what to do if a special-status plant is present *outside a WLPZ* and would be harmed by the treatment. Such harm would be a ***potentially significant impact*** of the project. Therefore, **Mitigation Measure BIO-1b** (and/or, in the unlikely event MM-BIO-1b can't be implemented, compensatory mitigation via MM-BIO-1c) will be implemented to avoid loss of identified special-status plants.

Per Mitigation Measure BIO-1b, a no-disturbance buffer will be established around the area occupied by the species within which mechanical treatment, manual treatment, prescribed herbivory, and prescribed burning will not occur, except during the plant's season of dormancy. The buffers vary with treatment, plant species, and time of year; see below and the MMRP.

Species Specific Determinations – Botany:

In order to avoid loss of individuals and maintain habitat function of occupied habitat, the project proponent will incorporate the following protection measures (MM-BIO-1b).

- Dissected-leaf toothwort: Avoid building handline within 20'. Do not use ignitions or accelerants within 50' between Feb. 1-May 31. Do not spread lop-and-scatter material on the population.
- Mildred's Clarkia: No mastication, manual treatments, or prescribed herbivory Feb 1 – July 30. OK to build handline through the occurrence as long as it is built Aug 1-Jan 31. If fire is applied Feb 1 – July 30, do not re-apply fire during Feb 1 – July 30 for the next 4 years.
- Lewis Rose's Ragwort: Avoid building handline within 2' (simply train crews to recognize and avoid this shrub, which is easily recognized year-round). Do not use ignitions or accelerants within 50'. Do not spread lop-and-scatter material on the population.
- Jepson's Onion: Avoid building handline within 20'. Do not use ignitions or accelerants within 50'. Do not spread lop-and-scatter material on the population.

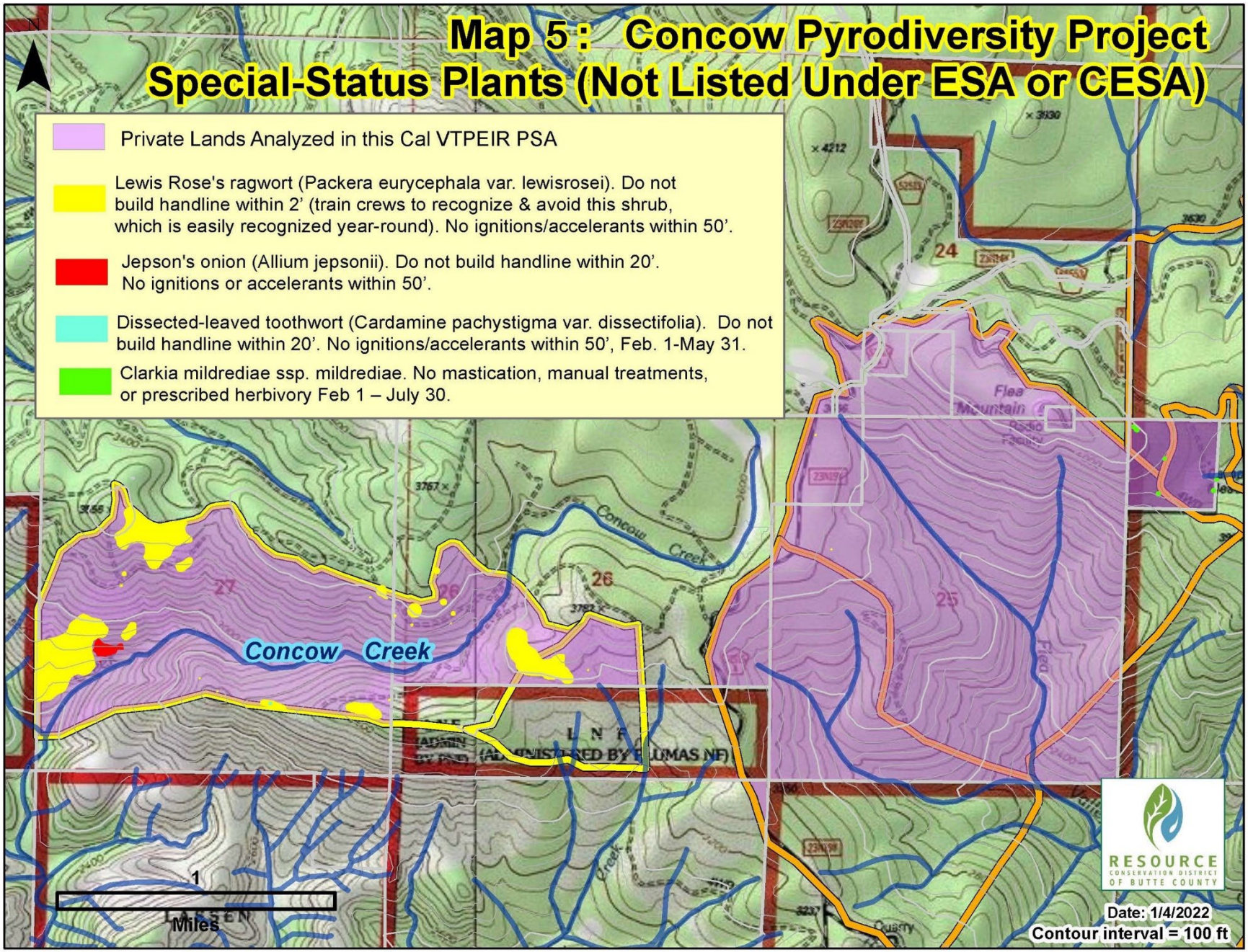
***Cumulative effects – Botanical Resources*:** The additive effects of past actions (wildfires, wildfire suppression, timber harvest, nonnative plant introductions and livestock grazing) have shaped the present landscape and corresponding populations of rare plants. However, data describing the past distribution and abundance of rare plant species is extremely limited, making it impossible to quantify the effects of historic activities on the resources and conditions that are present today.

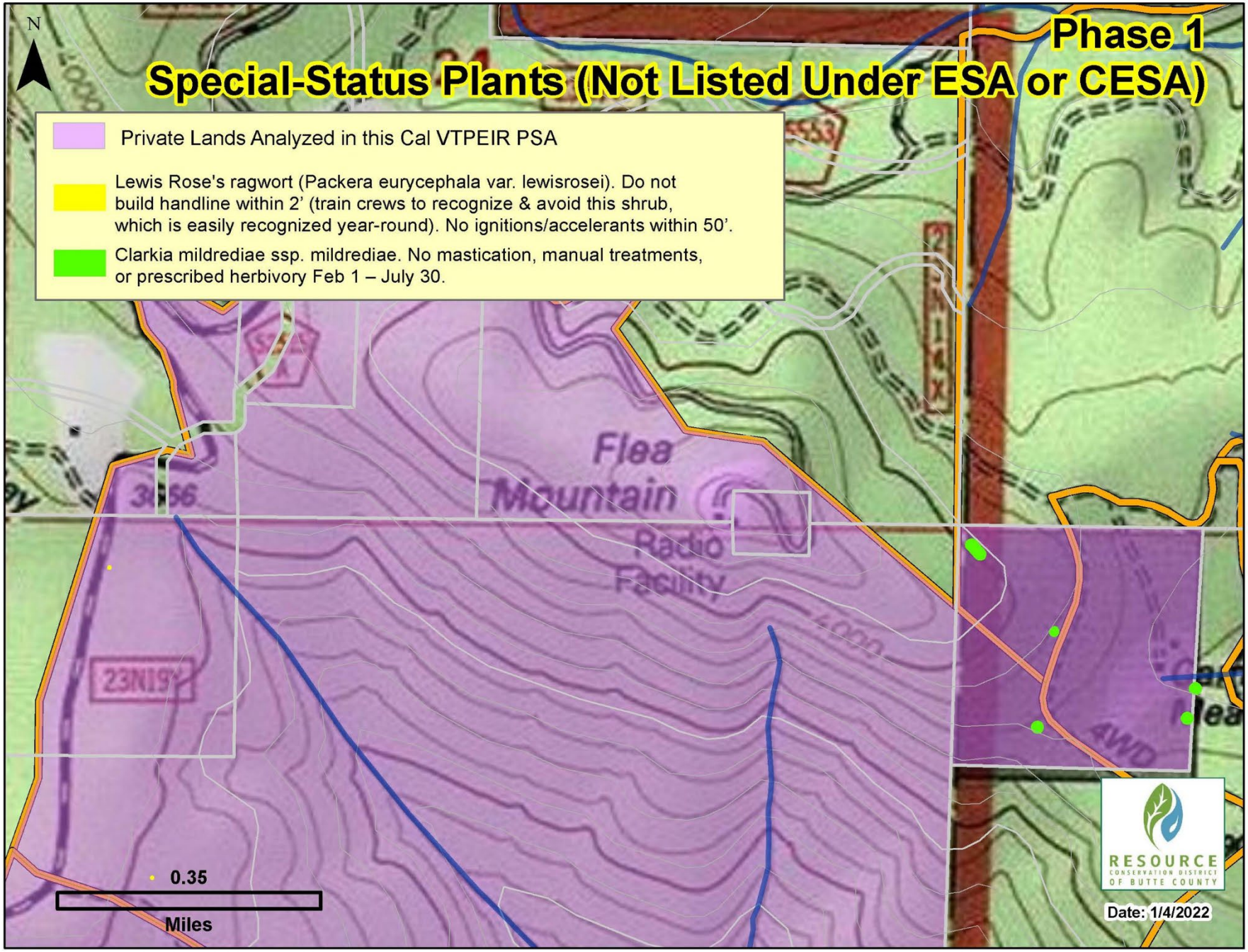
Undoubtedly, some plant species have always been rare due to particular ecological requirements or geographic isolation. It is also likely that past actions have caused some species to become rarer and encouraged others to become more common. Therefore, in order to incorporate the contribution of past activities into the cumulative effects, this analysis uses the current abundance and distribution of rare plant species as a baseline for the existing condition shaped by the impacts of past actions.

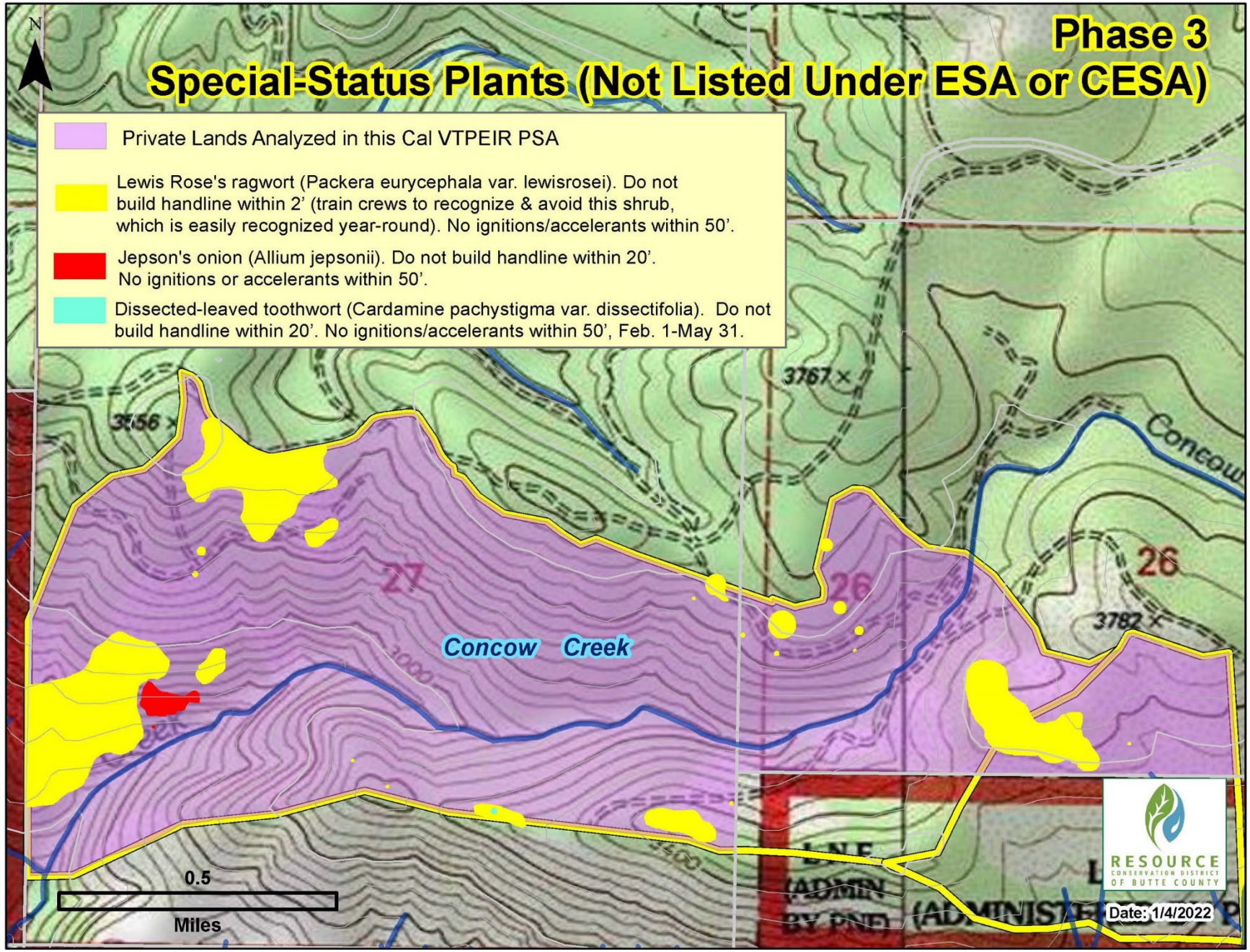
Past, present and future activities have and will continue to alter rare plant populations and their habitats to various degrees. Within the project boundary, these management activities include goat grazing for fuel reduction, wildfire, fire suppression, prescribed fire, and road maintenance. However, the approach taken in this analysis is that, if direct and indirect adverse effects on rare plant species in the analysis area are minimal or would not occur, then they would not contribute substantially to cumulative effects on the species. In addition, the effects of future projects would likely be minimal or similar to those described in this analysis if existing management objectives and policies (such as field surveys, protection of known rare species locations and noxious weed mitigations) remain in place.

For sensitive plant species, when the effects of these past, present and reasonably foreseeable future actions are combined with the effects predicted for the current proposed action, the total would still be minor and insignificant, with the possibility of some individuals being impacted, but no downward trends expected for any occurrences.

Map set 5: Special-Status Plants




N
Phase 1
Special-Status Plants (Not Listed Under ESA or CESA)
Private Lands Analyzed in this Cal VTPEIR PSA
Lewis Rose's ragwort (Packera eurycephala var. lewisrosei). Do not build handline within 2' (train crews to recognize & avoid this shrub, which is easily recognized year-round). No ignitions/accelerants within 50'.
Clarkia mildrediae ssp. mildrediae. No mastication, manual treatments, or prescribed herbivory Feb 1 – July 30.
Flea Mountain
Radio Facility
23N19
4WD
0.35
Miles
RESOURCE
CONSERVATION DISTRICT
OF BUTTE COUNTY
Date: 1/4/2022


Phase 3
Special-Status Plants (Not Listed Under ESA or CESA)
Private Lands Analyzed in this Cal VTPEIR PSA
Lewis Rose's ragwort (Packera eurycephala var. lewisrosei). Do not build handline within 2' (train crews to recognize & avoid this shrub, which is easily recognized year-round). No ignitions/accelerants within 50'.
Jepson's onion (Allium jepsonii). Do not build handline within 20'. No ignitions or accelerants within 50'.
Dissected-leaved toothwort (Cardamine pachystigma var. dissectifolia). Do not build handline within 20'. No ignitions/accelerants within 50', Feb. 1-May 31.
N
Concow Creek
27
26
3767
3782
0.5
Miles
RESOURCE CONSERVATION DISTRICT OF BUTTE COUNTY
Date: 1/4/2022

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

Treatments could result in direct or indirect adverse effects on riparian habitat. Most of the riparian habitat in the vicinity of the treatment areas has been excluded (for practical/operational reasons) during the design of the treatments. However, based on review and survey of project-specific biological resources (SPR BIO-1), some of the treatment areas contain streams associated with riparian habitat. As described below in SPR-HYD-4, WPLZs ranging from 50-150 feet will be established to avoid impacts on the wetland. These boundaries will be demarcated with brightly colored flagging, ribbon, non-toxic marking paint, and/or wood stakes.

These buffers would also result in avoidance of impacts on the riparian habitat associated with the wetlands. Ground disturbance will be prohibited within this buffer. In portions of the treatment area where prescribed burning is proposed, no fire ignition (and associated use of accelerants) will occur within the wetland buffer, and prescribed burning will not be used within the vegetation communities associated with the wetlands unless a qualified RPF or biologist determines that the prescribed burn is within the normal fire return interval for the wetland vegetation types present.

During project related activities, CDFW recommends staffing fuel reduction crews with personnel experienced with biological resources monitoring that will survey ahead of crews to identify sensitive species and habitats that may have not been discovered during pre-project surveys (i.e. nesting/denning wildlife, wetlands, streams, etc.). The staff identified should have the authority to stop or redirect project-related activities to avoid and minimize impacts to sensitive species and habitats. If wildlife cannot move safely out of the area by itself, consider postponing the project-related activity, choosing another site, or calling CDFW for guidance.

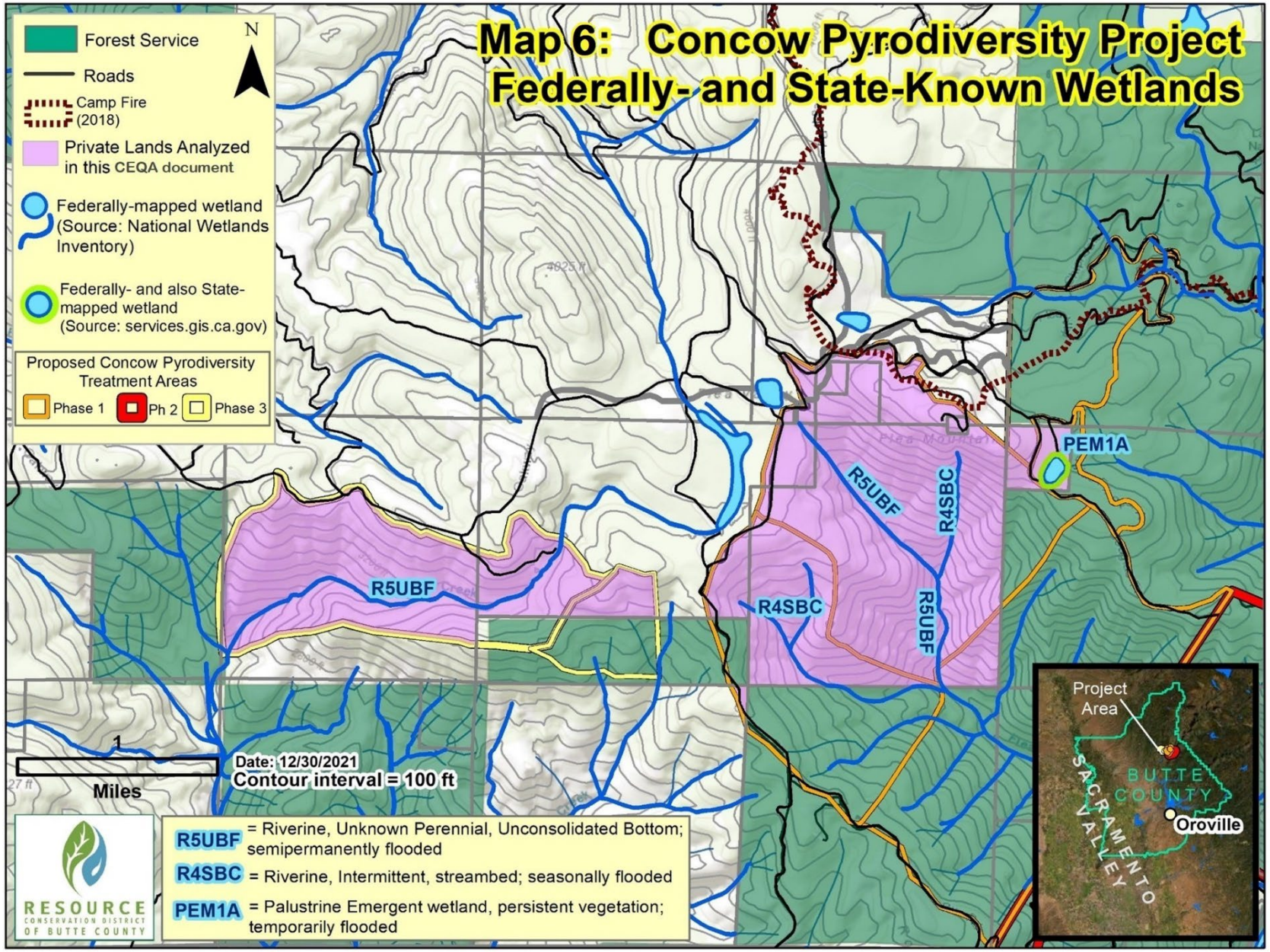
c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

Treatments could result in direct or indirect adverse effects on state or federally protected wetlands. Most of the aquatic habitat in the vicinity of the treatment areas has been excluded during the design of the treatments. However, based on review and survey of project-specific biological resources (SPR BIO-1), some of the treatment areas contain portions of perennial, intermittent, and ephemeral streams, as well as portions of meadows and other wetland features. Specifically, the National Wetlands Inventory (NWI) maps five wetland features in the project area on private lands: two semipermanent to perennial streams, two intermittent seasonal streambeds, and one palustrine emergent wetland of about 3.6 acres. The State of California's wetland inventory also recognizes the

3.6 acre palustrine wetland in addition to those already mapped by the NWI. See map 6.

Under SPR HYD-4, WPLZs ranging from 50 to 150 feet will be established adjacent to all aquatic habitat within the project area. These boundaries will be demarked with brightly colored flagging, ribbon, non-toxic marking paint, and/or wood stakes. This SPR will reduce the potential effects on wetlands to below the threshold of significance.

Map 6: Wetlands Map



d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Initial treatment and maintenance treatments could result in direct or indirect adverse effects on wildlife movement corridors and nurseries because suitable habitat is present in the treatment area. However, due to the nature of the proposed treatment activities and the previous 2008 and 2018 wildfires within the treatment area, implementation of these treatment activities would not result in a substantial change in the existing conditions that facilitate wildlife movement in the treatment area. Additionally, no known wildlife nursery sites or indications of nursery sites, such as deer fawning habitat or potential rookery trees with whitewash, were identified within the treatment area during implementation of reconnaissance-level surveys. However, the natural habitat within the treatment area may be used for movement (e.g., deer migration) and cover for common wildlife species[4]. Habitat function within the treatment area would be maintained because treatment activities would stimulate some shrub and oak resprouting and treatments would be expected to result in a patchy mosaic that facilitates diverse wildlife habitat. Additionally, WLPZs and ELZs ranging from 25 to 150 feet will be implemented adjacent to all streams in the treatment area, which could function as wildlife movement corridors, pursuant to SPR HYD-4.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Butte County has no oak or native tree protection ordinance save during property development (construction); this project does not involve property development, rezoning, or construction.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Natural Community Conservation: The Butte Regional Conservation Plan is a Natural Community Conservation Plan that seeks to identify specific habitat types within the region that hold unique value for conservation. Crucial habitat types identified by the plan that are present in the project area include: chaparral. Even though one identified type of crucial habitat does exist within the project area, much more chaparral exists outside the project area.

Habitat Conservation: The treatment site is within the plan area of one adopted Habitat Conservation Plan (HCP), Sierra Pacific Industries' "Habitat Conservation Plan for Northern and California Spotted Owl" (April 22, 2020; last revised Jan. 26, 2021). Only the California Spotted Owl occurs near the project area. The Sierra Pacific Industries (SPI) HCP does not apply to most of the treatments that are part of the

[4] In fact, the project area is within the Deer Herd Winter Migration Area overlay (but *not* the Critical Winter Migration Area overlay) (Butte County 2012). However, the Deer Herd overlay zoning regulations do not contain any restrictions the project would violate.

proposed project, e.g.: prescribed grazing activities, prescribed fire, or any activities undertaken on SPI land by any state or federal agency. However, it does specify conservation measures to minimize the risk of "taking" owls during other treatment activities, such as thinning, selective tree removal, mastication along the 30' road buffer, and truck traffic on forest roads. The proposed project will not conflict with the provisions of the SPI HCP because the project's SPRs are about equally protective of the California Spotted Owl. Specifically, the HCP requires a 0.25-mile buffer around owl-occupied sites, with no vegetation disturbance or even especially loud noise, from March 15th to August 31st. The Concow Pyrodiversity Project as designed requires a 0.25-mile buffer around owl-occupied sites, with no treatment activities, from March 1st to August 15th.

g) Would the project substantially reduce habitat or abundance of common wildlife?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Initial treatment and maintenance treatments could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds, because suitable habitat is present throughout the treatment area. Treatment activities, including mechanical treatments, manual treatments, prescribed burning, and prescribed herbivory, conducted during the nesting bird season (February 1–August 31) could result in direct loss of active nests or disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel), potentially resulting in abandonment and loss of eggs or chicks.

In order to maintain nesting areas, SPR BIO-12 will be implemented. SPR-BIO-10 and SPR-BIO-12 require nesting bird surveys to be conducted if project activities will take place between February 1 and August 31. Specifically, a qualified biologist will need to conduct a general survey for common nesting birds, in addition to the focused nesting bird surveys for bald eagle, golden eagle, American peregrine falcon, California black rail and great gray owl. These surveys must be conducted prior to treatment activities if project-related activities are scheduled during the nesting season (February 1 to August 31). The focused survey for nests should be performed within three (3) days prior to the beginning of project-related activities.

For common birds, including common raptors: If nesting birds are not found, then operations can commence for the year directly following the survey work. If active nests of common birds are observed during focused surveys, feasible impact avoidance strategies will be implemented to avoid disturbance to the nest, such as establishing an appropriate buffer around the nests, modifying treatments to avoid disturbance to the nests, or deferring treatment until the nests are no longer active as determined by a qualified RPF or biologist.

CULTURAL RESOURCES INCLUDING TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☒	☐	☐

The project is located in the ancestral home of Kojomkawi (*i.e.*, Konkow) speaking people represented today by several bands within the county and surrounding areas. Local Indigenous peoples frequently burned, creating a fire resistant and resilient landscape where fires largely self-regulated. Perhaps the first contact between these Tribes and Europeans occurred in 1811, when Padre Abella explored the San Joaquin and Sacramento Valleys. In 1832-3, John Work traveled through the northern Sacramento Valley as part of a fur trapping expedition for the Hudson Bay Company (Riddell 1978). Members of his party transmitted diseases that had a catastrophic effect on native peoples. The mass influx of Euroamericans during the Gold Rush in 1848-9 led to additional waves of impact. In 1851, Native Americans were forced to move onto reservations. Since then, settlers have left historic traces on the land through activities associated with mining, logging, homesteading, and waste disposal.

Direct and Indirect Effects: Direct effects to cultural resources are those that physically alter, damage, or destroy all or part of a resource; alter characteristics of the surrounding environment that contribute to the resource's significance; introduce visual or audible elements out of character with the property or that alters its setting; or neglect a resource to the extent that it deteriorates or is destroyed. An archaeological survey of the project area was conducted by Solano Archaeological Services (SAS) in spring/summer 2021. A total of 9 cultural resources were identified within the project area as a result of a records search and archaeological field survey. SAS recommended these sites be considered CRHR-eligible for management purposes only and that impacts to them be avoided through standard mitigation measures. The project as presently designed is not expected to have an adverse effect on archaeological or cultural resources. SPRs applicable to this treatment include CUL-1 through CUL-8. A brief discussion of the types of cultural resources known from the project area follows.

Built resources: Two previously documented resources are built historical resources, in that they are old mining ditches in fair to poor condition at this time. Built-environment structures that have not yet been recorded or evaluated for historical significance could be present within the treatment area. Structures (i.e., buildings, bridges, roadways) more than 50 years old that have not been evaluated for historical significance and are present in the treatment area will be avoided pursuant to SPR CUL-7.
Tribal cultural resources: Five of the resources documented in the project area are tribal cultural resources (bedrock mortars or lithic scatters).
Non-built post-settlement historical resources: Two of the resources documented in the project area are non-built historical resources (scattered historic materials such as broken bottles).
SPRs applicable to this treatment include CUL-1 through CUL-5 and CUL-8.
Unknown cultural resources: It is possible that as-yet-unknown unique archaeological resources or subsurface historical resources could be discovered during ground-disturbing activities and be inadvertently damaged or destroyed, if they are present in the treatment areas and affected. If this occurred, it could cause a substantial adverse change in the significance of unique archaeological resources or subsurface historical resources, which would be a ***potentially significant impact***. To mitigate this potential impact, ***Mitigation Measure CUL-1*** was developed, providing a clear framework for how to stop all ground-disturbing activity near the discovery and consult with a qualified

archaeologist before proceeding.

Cumulative Effects: Successful utilization of standard project requirements and, if needed, mitigation measure, will result in no significant cumulative impacts to heritage resources within the project area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k)?	☐	☒	☐	☐

The Native American Heritage Commission (NAHC) was contacted on February 25, 2021, to request a Sacred Land File (SLF) search and a list of appropriate Native American tribal contacts for the proposed project. Consultation was conducted to the specifications of AB 52 and CalVTPEIR-specific requirements. Letters requesting input and recommendations were sent to the following individuals identified by the NAHC on March 29, 2021:

- Jessica Lopez, Chair of the Konkow Valley Band of Maidu
- Guy Taylor, Mooretown Rancheria of Maidu Indians
- Benjamin Clark, Chair of the Mooretown Rancheria of Maidu Indians.

Mr. Matthew Hatcher responded via letter on behalf of Mr. Guy Taylor and Mr. Benjamin Clark. Mr. Hatcher stated that the Rancheria was aware of previously documented cultural resources within the project area and requested to be contacted if tribal cultural items or Native American human remains were encountered during the field survey.

Tribal consultation was conducted by Solano Archeological Services on behalf of the Butte County Resource Conservation District.

In addition to the contacts provided by the NAHC, Mr. Mathew Gramps-Williford (THPO for the Konkow Valley Band of Maidu) was also contacted by the RCD. Mr. Gramps-Williford was engaged in an email exchange in February of 2021; it was agreed that he would be kept informed of any significant finds and ultimately would be provided a copy of documentation for the Konkow Valley Band's records. Mr. Gramps-Williford continued to work directly with the project proponent's Unit Forester, Dave Derby, to further delineate and identify sites in the field so they could be properly avoided.

On May 18, 2023, BCRCD met with Mr. Gramps-Williford to review maps and discuss protection of unknown cultural resources in the project area. At this time the following language was added to

SPR-CUL-6:

a) If a movable tribal cultural resource is found during or prior to mechanical treatment (e.g., pestle stone or other tool), please move the object out of the mechanical treatment unit. Please take a GPS point of the new location and send it to both THPOs (Mooretown Rancheria and Konkow Valley Band of Maidu Indians). At time of this writing, the contact for Mooretown is Matthew Hatcher and the contact for KVBMI is Matthew Gramps-Williford. Do not move any artifacts found during or prior to manual, grazing, or Rx treatments.

*b) Any previously undiscovered tribal cultural resource found during or prior to any type of treatment should be reported **with GPS data** to both THPOs (Mooretown Rancheria and Konkow Valley Band of Maidu Indians). At time of this writing, the contact for Mooretown is Matthew Hatcher and the contact for KVBMI is Matthew Gramps-Williford.*

c) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

See answer above to question (a).

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

Vegetation treatment would include mechanical treatments using heavy equipment. The NEIC records search did not reveal any sites containing burials or human remains. Should human remains be discovered, the project would comply with California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097.

ENERGY

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project is in a remote location and will require transport of personnel and equipment to the project site. The project will not result in wasteful or inefficient energy use because equipment can be securely left on site overnight and between project phases, saving on travel fuel. The project is likely to result in slowing the rate of wildfire spread and providing a defensible space where crews can stop fire before it spreads between the communities of Pulga and Concow/Paradise; therefore, the project could reduce the overall amount of energy and fuel spent combating wildfires. The project will not violate or obstruct any State or local renewable energy or energy efficiency plan; all operations will comply with law.

There will be minimal impact to energy resources from this project and potentially energy savings resulting from a reduction in wildfire fighting energy needs due to the resulting fuel break.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

The project will not violate or obstruct any State or local renewable energy or energy efficiency plan; all operations will comply with law.

GEOLOGY AND SOILS

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Although the project is in a seismically active area (as is true for all of Northern California), the project does not include any blasting, new construction, or any other impact strong enough to influence seismic activity.

b) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Although the project is in a seismically active area (as is true for all of Northern California), the project does not include any blasting, new construction, or any other impact strong enough to influence seismic activity.

c) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Although the project is in a seismically active area (as is true for all of Northern California), the project does not include any blasting, new construction, or any other impact strong enough to influence seismic activity.

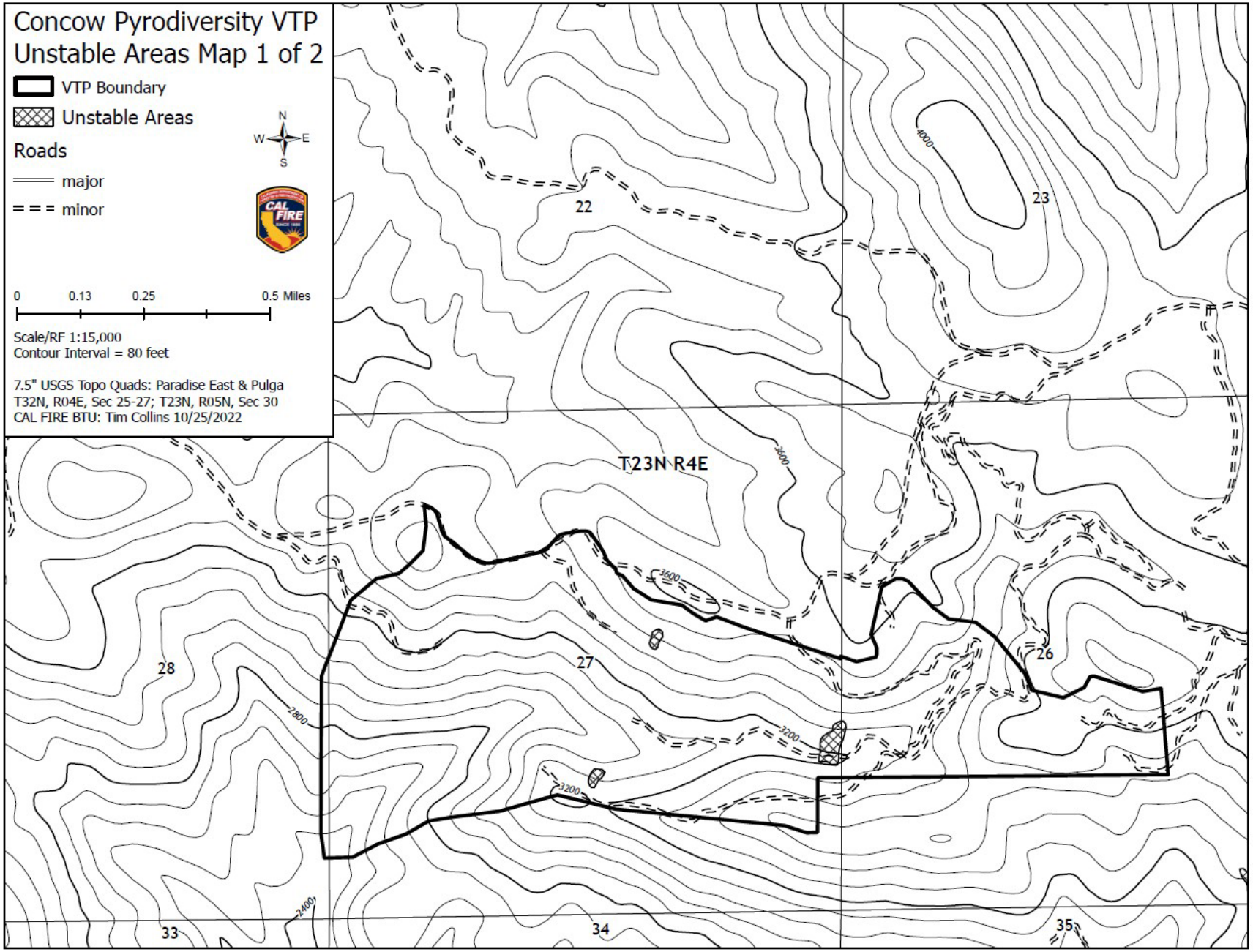
d) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

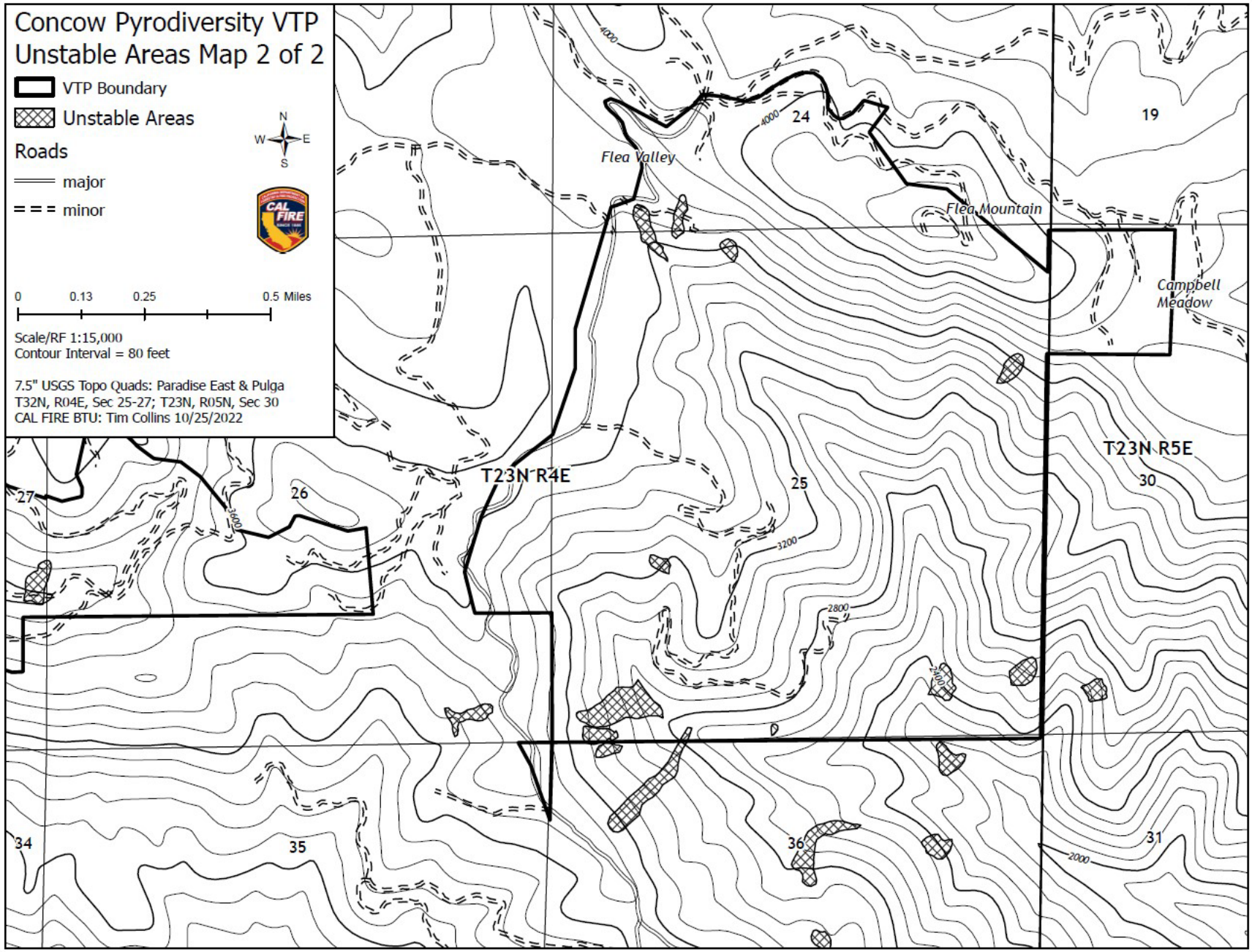
Initial and maintenance treatments would include vegetation removal in areas with steep slopes. A substantial landslide is located at the top of Flea Valley Creek in the southwest corner of section 24 (just below road). The area was clearcut in 2006 and slid in 2017. Furthermore, CAL FIRE Butte Unit Resource Management staff have identified additional areas of past geological instability. These mapped areas are attached below as Map Set 7.

The crumbly granitic soils, rendered even more friable by high-severity fire history, the steep slopes and the history of prior slides, we can say the risk of landslides is moderately high to high in the project area.

For this reason, a qualified geologist would evaluate areas of geological instability (see map 8) prior to sending mechanized equipment work there (SPR GEO-8). No geologist evaluation would be required before deploying hand crews, short-duration prescribed grazing, or broadcast fire alone. SPRs applicable to this treatment project are GEO-3, GEO-4, GEO-7, and GEO-8.

Map Set 7: Areas of Past Geologic Instability




Concow Pyrodiversity VTP
Unstable Areas Map 2 of 2
VTP Boundary
Unstable Areas
Roads
major
minor
N
W
E
S
0
0.13
0.25
0.5 Miles
Scale/RF 1:15,000
Contour Interval = 80 feet
7.5" USGS Topo Quads: Paradise East & Pulga
T32N, R04E, Sec 25-27; T23N, R05N, Sec 30
CAL FIRE BTU: Tim Collins 10/25/2022
Flea Valley
Flea Mountain
Campbell Meadow
T23N R4E
T23N R5E
19
24
25
26
27
30
31
34
35
36
4000
3600
3200
2800
2400
2000

e) Would the project result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

Initial treatment and maintenance treatments would include mechanical treatment, manual treatment, and prescribed burning. All of these activities would result in vegetation removal and soil disturbance. However, the no-action alternative would also result in erosion, i.e. the next time the area burns at high severity. The project includes several measures (including GEO-1 through GEO-8, HYD-3, HYD-4, and AQ-4) to minimize erosion and keep the soil as well protected as is practical.

f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

The soil in the area is classified as unstable, which is why the cutoff for heavy equipment operation was reduced from 65% slopes to 50% slopes. A substantial landslide is located at the top of Flea Valley Creek in the southwest corner of section 24 (just below road). The area was clearcut in 2006 and slid in 2017. In addition, the risk of landslides is moderate to high in the project vicinity. For this reason, mechanical equipment would be kept off of slopes steeper than 50% and a licensed RPF or qualified geologist would evaluate slopes steeper than 50% prior to sending hand crews to work there (SPR GEO-8). SPRs applicable to this treatment project are GEO-3, GEO-4, GEO-7, and GEO-8.

g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

There is no building construction involved with this project.

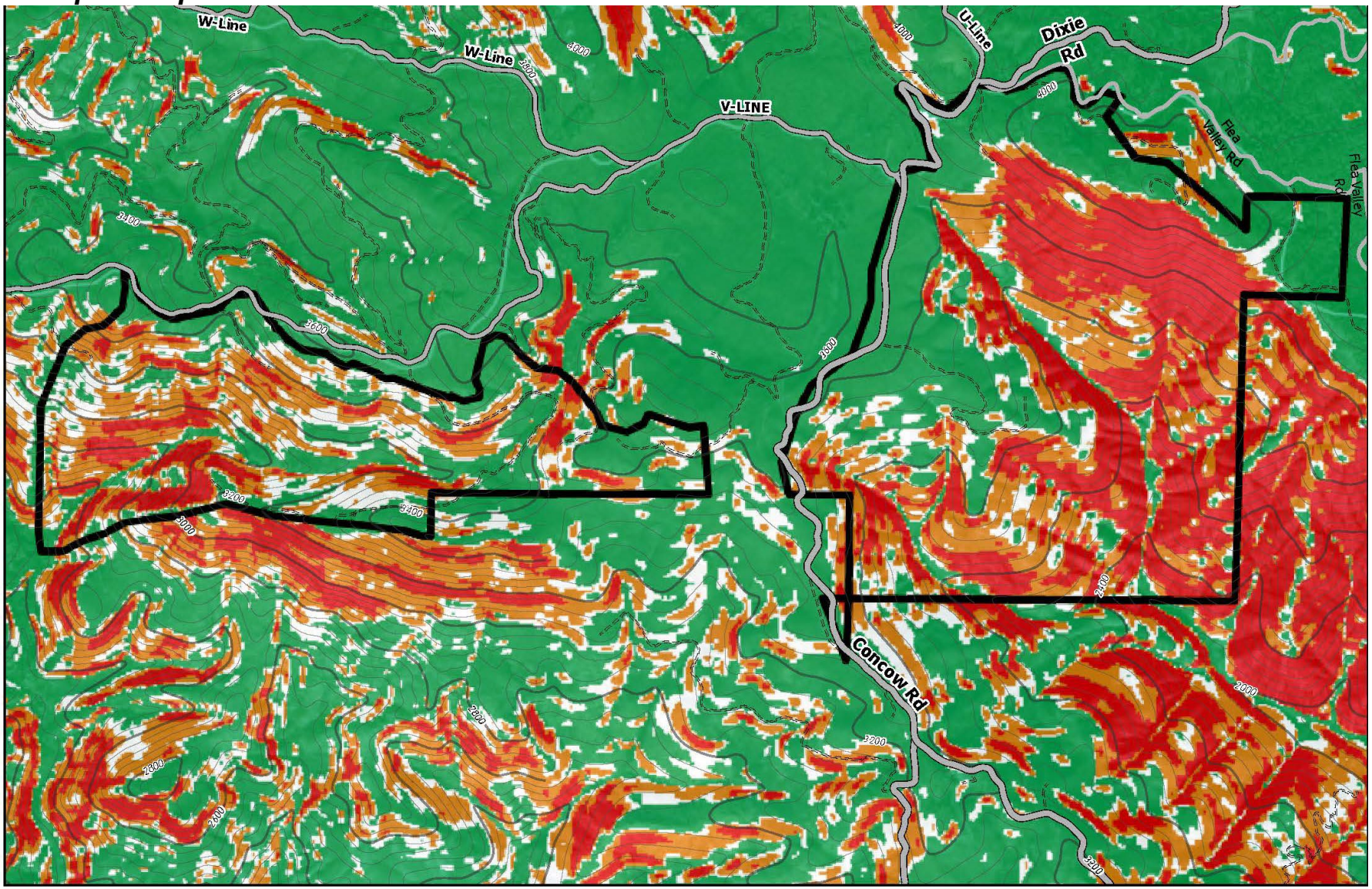
h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project does not involve the installation of septic tanks or alternative waste water disposal systems.

i) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

There are no known unique paleontological resources/sites or unique geologic features within the project area.

Map 8: Slope


W-Line
W-Line
V-LINE
U-Line
Dixie Rd
Flea Valley Rd
Flea Valley Rd
Concow Rd
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
Concow Pyrodiversity Project State Lands
Slope < 35 Percent
No Color
Slope 35-40 Percent
Slope 40-50 Percent
Slope >50 Percent
Concow Pyrodiversity Project
Slope Class
Slope data is from Butte County Fuels Reduction & Forest Restoration Planning Tool. Data was derived from he USGS NED 3DEP 1/3 Arc Second Digital Elevation Model, downloaded from The National Map (https://viewer.nationalmap.gov/basic).
0
0.25
0.5
1 Miles
N

GREENHOUSE GAS EMISSIONS

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Three of the most important greenhouse gases (GHG) resulting from human activity are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). They are produced by both natural processes and human activity. Greenhouse gases play a role in the natural environment by absorbing the sun's heat. As the suns energy radiates back from the Earth's surface toward space, these gases trap the heat in the atmosphere keeping the planet's surface warmer than it would otherwise be. Increases of atmospheric greenhouse gases result in additional warming of the Earth's atmosphere.

Burning of vegetation as proposed in this project will result in greenhouse gas emissions, as well as a very small increase could result from equipment use. The annual averaged emissions of CO2 from wildfires in California are significant (24 million metric tons CO_2 per year; equivalent to 6% of the fossil fuel burning (FFB) emissions annually). This ratio is subject to substantial variation. Whereas FFB emissions are fairly constant throughout the year, one bad wildfire month during the year can significantly affect the CO_2 emission resulting from wildfires for the year. For example, major wildfires in September 2006, including the Day Fire in Southern California, produced an estimated 16 million metric tons CO_2 for that month, equivalent to approximately 50% of estimated total monthly FFB emissions for the entire state (Wiedinmyer and Neff 2007). Far more acres are burned each year in wildfires than are burned in prescribed fires. To the extent that prescribed fire can lessen the intensity or reduce the acres burned in wildfires, prescribed fire can temporarily reduce the carbon emissions from the wildland.

On average, the biomass accumulation of montane chaparral habitats like those in the project area is about 15 to 20 tons per acre (Bolsinger 1989). The carbon component of the biomass accounts for about 50% of the mass. Therefore, the biomass contains 7.5 to 10 tons per acre of carbon (27.5 to 36.7 tons per acre CO_2 equivalent) in biomass. At some point the carbon stored in the biomass will be released through respiration, decay, or combustion. Although some of the carbon will be added to the soil, most will be released to the atmosphere.

Over time the carbon that is stored in vegetation will be released as part of the normal carbon cycle. Carbon will also be sequestered over time as new vegetation grows as long as the land remains productive. Prescribed fire and forest/woodland fuel reduction treatments are ways to help maintain those carbon stocks over time. By reducing the probability of catastrophic wildfire, management operations can increase the probability of survival for some of the vegetation within the project area, as well as vegetation adjacent to the project, allowing the remaining vegetation to continue to sequester carbon. SPRs relevant to this resource concern are AQ-3 and AQ-2 (burn plan and smoke management plan).

California's wildlands are going to burn and the carbon is going to be released. Through prescribed fire and forest management land managers can have a say in the timing and quantity of some of those releases. Land managers can also lessen the impacts or provide benefits for other environmental resources. Fire hazard reduction may be an objective of prescribed fire and forest thinning; however, other objectives are met as well, such as wildlife habitat improvement or range improvement. If a wildfire does happen to enter an area that was treated, the wildfire may be contained sooner with reduced area burned and consequently reduced carbon emissions. The reduced number of acres or fire intensity will

have benefits to other resource, including environmental resources, public health, and public and firefighter safety. The proposed treatments would reduce future potential wildfire smoke and greenhouse gas emissions, and reduce potential loss of sequestered carbon.

Less than significant effects to greenhouse gases and carbon sequestration could result from prescribed burning; and a very small increase could result from equipment use under the proposed action when compared to the CA Air Resources Board approved 2020 emissions limit of 427 million metric tons of CO_2. Prescribed burning in the project area would reduce the potential of high-intensity wildfires for several years and correspondingly reduce potential adverse smoke events. After project treatments are completed a substantial amount of carbon would remain sequestered below and above ground in the project area. In addition, project treatments would accelerate carbon sequestration within the project over the long term.

Even so, project emissions would increase greenhouse gas emissions in the airshed and Butte County. While their direct and indirect effects would be regulated by the Butte County Air Quality Management District in order to prevent adverse impacts and exceedances of health standards, their cumulative effects need to be analyzed at the State level. Just as the past century of unnatural fire suppression has temporarily depressed carbon emissions from fire (albeit at great ecological and social cost), repaying California's fire debt to the land it occupies could somewhat raise the state's carbon emissions, compared to the late 20th century baseline (albeit at great ecological and social benefit).

Cumulative effects: Cumulative effects include a discussion of the combined, incremental effects of human activities. For greenhouse gas emissions and carbon sequestration, the area for consideration is the State level. Past and present emission producing activities and carbon sequestration are considered as the current condition of the air and carbon resource. The State of California has recognized that repaying its fire debt could result in a cumulative increase in greenhouse gas emissions (compared to the late 20th century baseline) and this could be a ***potentially significant impact*** of the project, considered in the context of cumulative effects. Therefore, **Mitigation Measure GHG-2** (originally prepared for the CalVTPEIR) has been added to this project. MM-GHG-2 lists a variety of ways prescribed fires can be designed to emit less carbon, while still consuming enough fuels to meet objectives (i.e., achieving high consumption in the 1- and 10-hour fuels that can drive a fire's rapid early spread and can be most receptive to spotting embers, but low consumption in the 100- and especially 1000-hour fuels that store most of the woodland's aboveground carbon.)

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The Butte County Climate Action Plan (CAP) outlines an action strategy for reducing GHG emissions 16.5% below 2006 levels by 2020. It applies across the unincorporated areas of Butte County, which means it applies to the project area. The project does not conflict with or obstruct the implementation of any of the Plan's action items regarding either GHG reductions or climate change adaptation. CAP adaptation measure A.2 calls on the county to "identify fuel reduction and fuel break sites in addition to those listed in the LHMP [Local Hazard Mitigation Plan]"; this project does so.

HAZARDS AND HAZARDOUS MATERIALS

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Project operations would involve the routine transportation, use, or disposal of gasoline, oil and diesel used in the power equipment and as a fuel for torches. Fuels and related accelerants are hazardous materials, and their transport is regulated by a variety of workplace safety and materials handling rules that are intended to reduce the hazard to the public and the environment to a socially acceptable level. Operations will follow all applicable state and federal laws. Furthermore, SPRs HAZ-1 through 4 are applicable to this treatment.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

All personnel will wear the appropriate personal protection equipment. Equipment used on this project will not be serviced in locations where grease, oil, or fuel could pass into a watercourse. The project does not present any unusual risks because all fuels will be handled safely and in accordance with standard best practices. Furthermore, even in a worst-case spill scenario, the impacts of a spill of 10-100 gallons of diesel or gasoline, the maximum likely to be present on site at any time, in a remote area far from human habitation are not likely to be significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project is not within ¼ mile of a school.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Lists of hazardous materials sites were consulted. The remote mountainous project area is not located on a hazardous materials site.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
				☒

	☐	☐	☐	

The project is not inside the Airport Overlay for any airport under the Butte County General Plan, and it is not within 2 miles of any airport.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

At times, the project could block or close a public road, but residents would be notified a minimum of three days in advance (SPR-AD-4), and Rim Road closure signs would be placed at the intersection of Concow Road and Hwy 70; at the intersection of Andy Mountain Rd and Hwy 70 (known locally as "Jarbo Gap"), and at the point where Concow Rd transitions from paved to gravel. The project is intended to slow future wildfire rate of spread, giving Concow residents ***more*** time to evacuate during any future wildfire event.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The project involves some prescribed fire, i.e., intentional fire ignition. However, the ignitions will take place under such controlled conditions and with such advanced levels of professional supervision that the risk of wildfire escape is not significant. While about 1-1.5% of prescribed fires do escape control, the vast majority of human-caused wildfires do not start as prescribed fires. Furthermore, the project will decrease future wildfire hazards. This is because the thinner, patchier fuel profile post-project is expected to slow future wildfire rate of spread, ***decreasing*** the exposure of people and structures to risks from wildfire.

HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The project area is located in the Lower North Fork Feather River Watershed, and the West Branch Feather River Watershed. Hydrologic features in the project area include Concow Creek, Dogwood Creek, Flea Valley Creek, and Cirby Creek. North Fork Feather River is located immediately east of Phase 2 (an all-federal lands phase) of the project.

Project treatments would include prescribed burning. Ash and debris from treatment areas could be washed by runoff into adjacent drainages and streams. Although most treatment areas have been designed to avoid streams and watercourses, WLPZs ranging from 50 to 150 feet will be implemented for any

watercourses that are within treatment areas pursuant to SPR HYD-4. SPRs applicable to this treatment are HYD-1, HYD-4, GEO-4, GEO-6, and AQ-3.

Flea Valley Creek, Concow Creek, Cirby Creek, and Dogwood Creek are all Class 1 watercourses, as defined by the California Forest Practice Act. There are several Class 2 and Class 3 watercourses that are tributaries to these creeks within the project area. Watercourse and Lake Protection Zones (WLPZ's) will be flagged along watercourse, and project activities within these zones will be limited to those that do not have the potential to impact water quality. Proposed hand- based activities such as hand-thinning, hand-piling and hand-grubbing have a negligible footprint and therefore are not included in this analysis.

The WLPZs mean there will be at least a 50' buffer between accelerants and any perennial stream. Backing fire will be used into ephemeral drainages to reduce the intensity of fire, and thus of siltation, in drainages. No discernible direct or indirect effects to water quality would be expected as live vegetation within the buffer would be left to function as a sediment filter strip.

*Cumulative effects***:** Direct and indirect effects from proposed vegetation treatments and prescribed fires are within the area's native fire return interval, and therefore long term cumulative effects are not expected.

Implementing best management practices and project mitigation measures such as streamside equipment exclusion zones would effectively protect streams from excessive project generated sediment, assuring that cumulative effects of the project do not adversely affect beneficial uses of water.

The design of this project is such that minimal effects to hydrology resources would be expected from the proposed action as discussed above. Possible effects to water quality and riparian areas depend upon the extent and intensity of the treatments particularly those involving ground disturbances. Potential effects on water quality and cumulative watershed effects may include increases in sediment delivered to streams. Some of the riparian areas may be lightly burned, but the effect should not be significant. Although a short-term degradation could occur, reintroduction of fire into this landscape and movement toward a more natural fire regime would have a long-term benefit. Mitigation measures and best management practices all contribute to the prevention of sediment delivery to streams and impacts to riparian areas. The amount of actual sediment delivery is expected to be negligible. Therefore streams, water bodies and riparian areas are expected to experience minimal, short-term and negligible effects.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

The project involves no on-site water pumping. The off-site water pumping to fill water tender trucks will not be significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial on- or off-site erosion or siltation?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project will not alter drainage patterns or streamcourses or install any new impervious surfaces.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project will not alter drainage patterns or streamcourses or install any new impervious surfaces.

e) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project will not alter drainage patterns or streamcourses or install any new impervious surfaces.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in a manner which would impede or redirect flows?	☐	☐	☐	☒

The project will not alter drainage patterns or streamcourses or install any new impervious surfaces.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	☐	☐	☐	☒

The project is not in a flood hazard, tsunami, or seiche zone.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The project does not obstruct implementation of a water quality control plan or sustainable groundwater management plan.

LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project physically divide an established community?	☐	☐	☐	☒

There is no established community within the project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Project activities will not alter any existing land use. The project complies with zoning and plan designations as documented in the Butte County General Plan (as amended November 6, 2012 via County Resolution 12-124).

The project area contains private land adjacent to federal land. NEPA (and CEQA) is complete for the Federal Responsibility Area (FRA) portion of the burn (PALS#59322), so this CEQA analysis only addresses the 1,174 acres of private land in the project area. See below for a table of the private

parcels in and adjacent to the project area, with their zoning categories.

ParcelID	Acres	APN	In Project Or Adjacent?	Jurisdictn	Zone	Owner
Key to zoning codes: TPZ = *Timber Production* TM = *Timber Mountain*						
1	640	058-100-019-000	Adjacent	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
2	640	058-110-006-000	Adjacent	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
3	640	058-110-007-000	Adjacent	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
4	398.9	058-110-018-000	Partly in project	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
5	193	058-110-009-000	Adjacent	Unincorporated	TM	U S A
6	10	058-110-011-000	In project	Unincorporated	TM	FOSTER CLINTON M & GERALDINE
7	30	058-110-012-000	In project	Unincorporated	TPZ	RINGEL DUGALD E LIVING TRUST ETAL
8	2.3	058-110-015-000	In project	Unincorporated	TPZ	PACIFIC GAS & ELECTRIC CO
9	631.92	058-030-006-000	In federal side of project*	Unincorporated	TPZ	U S A
10	160	058-130-016-000	Adjacent	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
11	320	058-130-017-000	Adjacent	Unincorporated	TM	U S A
12	640	058-120-001-000	Partly in project	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
13	520	058-120-013-000	Partly in project	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
14	160	058-120-005-000	In federal side of project*	Unincorporated	TM	U S A
15	598.9	058-120-011-000	Partly in project	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
16	38.56	058-070-001-000	In project	Unincorporated	TPZ	CAMPBELL COLBY A ETAL
17	600	058-070-002-000	In federal side of project*	Unincorporated	TM	U S A
18	640	058-070-003-000	In federal side of project*	Unincorporated	TM	U S A
19	600	058-130-025-000	Adjacent	Unincorporated	TPZ	SIERRA PACIFIC LAND & TIMBER COMANY
20	600	058-120-007-000	Adjacent	Unincorporated	TM	U S A
21	40	058-120-008-000	Adjacent	Unincorporated	TM	STATE OF CALIFORNIA
22	640	058-120-009-000	Partly in project	Unincorporated	TPZ	SIERRA PACIFIC INDUSTRIES
23	640	058-120-010-000	In federal side of project*	Unincorporated	TM	U S A
24	160	058-070-006-000	In federal side of project*	Unincorporated	TPZ	U S A
25	450	058-070-005-000	In federal side of project*	Unincorporated	TM	U S A
26	61.18	058-540-001-000	Adjacent	Unincorporated	TM	TOP II LLC [Town of Pulga]
27	320	058-070-037-000	In federal side of project*	Unincorporated	TM	U S A
Lands in the federal side of the project have been analyzed separately under NEPA (PALS #59322) and are not analyzed in this document.						

The project site is located on lands zoned and designated under the Butte County General Plan for Timber Mountain (TM) and Timber Production Zone (TPZ). The purpose of the TM zone is to preserve Butte County's valuable timber resources and to protect both the economic and environmental value of these lands. Standards for the TM zone are intended to support the growing and harvesting of timber, pulp woods, and other forestry products for commercial purposes. Permitted uses include logging, timber processing, crop cultivation, agricultural processing, and the management of forest lands for timber operations and animal grazing. Extractive uses that are generally compatible with forestry operations, including mining and oil and gas extraction, are conditionally permitted in the TM zone.

The purpose of the TPZ zone is to preserve and protect land where timber is actively being grown and harvested, as well as minimize impacts to neighboring uses from active timber operations, and to provide certain tax benefits to timberland managers. Permitted uses include logging, timber processing, crop cultivation, the management of forest lands for timber operations and animal grazing, and compatible uses, which are uses that are determined to not significantly detract from the use of the property for, or inhibit, growing and harvesting timber. Extractive uses that are generally compatible with forestry operations, including mining and oil and gas extraction, are conditionally permitted in the TPZ zone. Minimum parcel size and development standards for development in the

TPZ zone are generally equivalent to the TM zone. The TPZ zone implements the Timber Mountain land use designation in the General Plan.

MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

The project site does not contain any known mineral resources of value or of local importance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

The project does not change the future availability of any mineral resources.

NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or applicable noise ordinances, including state or federal standards?	☐	☐	☒	☐

Treatments would involve large trucks hauling crews and heavy equipment to the project site. These haul truck trips would pass by residential receptors and the event of each truck passing by could increase the single event noise levels (SENL). Most haul trips associated with the treatment would occur during daytime hours, which avoid the potential to cause sleep disturbance to residents during the more noise sensitive evening and nighttime hours. There may be instances that require engines, crew buses, and equipment transports to operate at night following a broadcast burn. However, this impact would be very infrequent. Furthermore, communities would get three days' advance notice before a burn, and this notification would include the notification that activities could take place at night if that is when the best burn windows are expected.

It is common for heavy equipment to travel in the area due to timber production activities. Any short-term increase in project equipment would be consistent with current and recent equipment use in the area.

Project implementation will require intermittent and recurring equipment use. However, the project site is remote and the noise, with the exception of helicopter noise, should be faint to inaudible to local communities. The community already experiences helicopter noise from medical, fire suppression, and law enforcement operations, and the infrequent additional helicopter noise should not be a significant impact, especially since the community will have at least three days' notice that the helicopters may start flying. SPRs applicable to this treatment are AD-4 and NOI-1 through 5. There are no sensitive receptors (i.e., schools, hospitals, or rural residences) within 1,500 feet of the treatment areas.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The land management activities contemplated in the project description will not generate groundborne noise or vibrations.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project is not within an airport land use plan overlay or within 2 miles of any airport.

POPULATION AND HOUSING

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

There are no proposed activities that would directly or indirectly promote population growth in the area.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The proposed project activities will not result in the displacement of people or housing.

PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire or police protection?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project will not impact the provision, or the need for governmental facilities. The project will not impact existing police protection services. The project will not impact existing fire protection services because CAL FIRE only implements prescribed burns after ascertaining they will have enough standby resources on hand, for the duration of the prescribed fire and mop-up, to also respond to any other emergencies or unexpected fires.

b) Would the project cause physical impacts associated with securing sufficient water supplies, including both direct water needs for the project and indirect (e.g., related/support infrastructure) needs?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Treatments would include prescribed burning, which may require an on-site water supply as holding and/or contingency resources. If needed, water would be supplied from water trucks. These water

trucks would likely draft from Lake Concow, which is a substantial reservoir that would not be depleted by the drafting activity.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools, parks, or other governmental facilities?	☐	☐	☐	☒

The project will not impact the provision, or the need for governmental facilities. The project will not impact existing school services.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project generate solid waste in excess of State standards or exceed local infrastructure capacity, and/or will it fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Initial and maintenance treatments would generate biomass as a result of vegetation removal within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of either with pile burning or by lopping and scattering biomass in areas where material cannot safely be piled for burning. For the proposed treatment project, no biomass would be hauled offsite; therefore, there is no potential to exceed the capacity of existing infrastructure, so this impact does not apply to the proposed project.

RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

The project would not incentivize new construction or increase population in the area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

The project does not include, construct, or expand any recreational facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project obstruct public access to existing recreational facilities or opportunities in such a way as to significantly impact the community's access to recreation?	☐	☐	☒	☐

The lands analyzed in this document are private and not open to most forms of recreation. People do hike and hunt them at times, and adjacent public lands are open to multiple forms of recreation. People's access to these adjacent public lands could be hindered, particularly on rare days when work crews need to temporarily close Rim Road. However, this inconvenience would be mitigated by the fact that residents and visitors would be notified starting a minimum of three days in advance. Rim Road closure signs would be placed at the intersection of Concow Road and Hwy 70; at the intersection of Andy Mountain Rd and Hwy 70 (known locally as "Jarbo Gap"), and at the point where Concow Rd transitions from paved to gravel. Over the long term, the project should enhance recreational access, as a more open landscape is easier to walk through and regular burning improves deer habitat and hunting opportunities. The SPRs relevant to this resource concern are AD-4 and AD-6.

TRANSPORTATION

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

There are seasonal public and private roads within the project area, some open to all, others accessed through locked property gates and used only by those with permission to access the properties. The project does not alter any existing roadways. However, this project could have temporary impacts on traffic circulation patterns, particularly on rare days when work crews may need to temporarily close Rim Road. This inconvenience would be mitigated by the fact that residents and visitors would be notified starting a minimum of three days in advance. Rim Road closure signs would be placed at the intersection of Concow Road and Hwy 70; at the intersection of Andy Mountain Rd and Hwy 70 (known locally as "Jarbo Gap"), and at the point where Concow Rd transitions from paved to gravel. The SPRs relevant to this resource concern are AD-4, AD-6, and TRAN-1.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3(b)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

While this project will require some vehicle miles traveled, the increase will be temporary and project-focused and will not exceed a threshold of significance. The project will not result in any sustained change in vehicle miles traveled in the region.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The project does not include any alteration in the design or use of existing transportation systems.

d) Would the project result in inadequate emergency access?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

No road, including internal roads, will be altered in such a way as to decrease emergency access.

UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the	☐	☐	☐	☒

construction or relocation of which could cause significant environmental effects?				

The project will not result in the relocation or construction of new utilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒

Yes; water would likely need to be trucked in from either Hwy 70 or Concow Lake.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒

The project does not involve the use of utilities or public service systems.

WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. On the rare days when work crews may need to temporarily close Rim Road, evacuation or emergency response could be hindered if an emergency happens to occur on that day. This potential hazard would be mitigated by the fact that residents and visitors would be notified starting a minimum of three days in advance (SPR AD-4). Rim Road closure signs would be placed at the intersection of Concow Road and Hwy 70; at the intersection of Andy Mountain Rd and Hwy 70 (known locally as "Jarbo Gap"), and at the point where Concow Rd transitions from paved to gravel. The SPRs relevant to this resource concern are AD-4, AD-6, and TRAN-1.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒

A prescribed burn plan will be developed for each proposed prescribed fire (SPR AQ-2) prior to implementation that outlines the parameters (timing, weather, fuel moisture, etc.…) necessary to implement the project to ensure that the fire behavior remains acceptable and does not escape the project perimeter (SPR AQ-3). The burn plan also identifies protocols should the fire escape. All prescribed fire activities carry a risk of fire escape, but the project design has reduced this risk below a significant level. By conducting burns under mild conditions and with highly trained fire professionals on site, the project reduces the risk of wildfire below the level of risk associated with the no-project alternative. Spotting outside of fire lines should not be a problem with correct firing methods and weather patterns as prescribed in the burn plan. Perimeter fire lines (roads and existing trails) will be in place and black line will be added to strengthen control lines as needed. Furthermore, by reducing fuels while leaving slope and other factors unchanged, the project will reduce, not exacerbate the effects of any future wildfire.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

The project will require some road maintenance, which comes with an extremely small incidental fire risk. Treatments including prescribed burning and mechanical treatments using heavy equipment could pose a risk of fire ignition or risk of a prescribed fire that could escape its control lines. The small risk of a new fire is offset by the reduction in future high-severity fire hazard in the area, compared to the no-project alternative. Most project personnel will be trained fire and/ or forestry professionals who have rehearsed how to respond in case their activities were to start a wildfire. SPRs HAZ-2 through HAZ-4 reduce the risk of fire starts from ordinary project activities to below a threshold of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

All prescribed fire carries some risk of increased runoff and siltation during subsequent storms, but the project's remote location and buffers to perennial streams reduce the hazard of runoff/flooding and landslides resulting from the prescribed fire component of the project. Furthermore, by reducing the likely severity of future fires, the project reduces the future flooding/landslide hazard to people and structures downstream, compared to the no-project alternative.

MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

The project is an ecological enhancement project intended to increase habitat suitability for a wide range of native species while promoting habitat diversity. The project restores regular, mixed-intensity fire to a landscape that has suffered the dual effects of fire exclusion and catastrophic fire re-introduction. The implementation of forest management techniques and intentional reintroduction of patchy fire is expected to promote biodiversity as it has done on countless other sites across California. The project will result in some species being less abundant and some being more abundant, but these shifts in abundance will be within the natural range of variation and will not lead to listing of any species. Careful study has resulted in a project design extremely unlikely, in the opinion of wildlife and botany specialists, to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal.

According to the opinions of cultural resources experts, the project, with mitigations incorporated, will not eliminate any important examples of the major periods of California history or prehistory.

As stated above, all prescribed fire carries some risk of (1) wildfire escape, and (2) increased runoff and siltation during subsequent storms. Design features incorporated into this project reduce these risks below a level of significance. For example, the project's remote location and buffers to perennial streams reduce the hazard of runoff/flooding and landslides resulting from prescribed fires. Furthermore, by reducing the likely severity of future fires, the project reduces the future flooding/landslide hazard to people and structures downstream, compared to the no-project alternative. As another example, by conducting burns

in the off-season and with highly trained fire professionals on site, the project reduces the risk of wildfire below the level of risk associated with the no-project alternative.

With the implementation of mitigation measures included in the Initial Study, the proposed project would not degrade the quality of the environment; result in an adverse impact on fish, wildlife, or plant species including special status species, or prehistoric or historic cultural resources.

b) Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The project is part of a wider program of fire reintroduction across Butte County, and across the Sierra Nevada. Wide-scale reintroduction of prescribed fire is a stated goal of the State of California, as expressed in mandates of the California Board of Forestry/CAL FIRE, the Sierra Nevada Conservancy, the Department of Conservation, and numerous other agencies. The cumulative effects of this wide-scale prescribed fire reintroduction will be, overall, ecologically positive. Cumulative negative impacts could include that some species will be less abundant, some drainages could experience transient peaks in siltation, and some air quality impacts could be felt by sensitive populations. However, these impacts will be less than significant when compared to the likely catastrophic wildfire impacts of ***not*** reintroducing prescribed fire.

Individual impacts are limited with this project and cumulatively are not considerable when viewed in connection to past or future projects.

c) Would the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

This project does not have environmental effects which will cause substantial adverse effects on human beings.

APPENDIX A

Mitigation Monitoring and Reporting Plan

In accordance with CEQA Guidelines § 15074(d), when adopting a mitigated negative declaration, the lead agency will adopt a mitigation monitoring and reporting plan (MMRP) that ensures compliance with mitigation measures required for project approval. Butte County RCD is the lead agency for the above-listed project and has developed this MMRP as a part of the final IS-MND supporting the project. This MMRP lists the mitigation measures developed in the IS-MND that were designed to reduce environmental impacts to a less-than-significant level. This MMRP also identifies the party responsible for implementing the measure, defines when the mitigation measure must be implemented, and which party or public agency is responsible for ensuring compliance with the measure.

POTENTIALLY SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The following is a list of the resources that will be potentially affected by the project and the mitigation measures made part of the Initial Study-Mitigated Negative Declaration.

A copy of the completed MMRP will be forwarded to: Butte County Resource Conservation District (BCRCD), 150 Chuck Yeager Way, Suite A, Oroville, CA 95965.

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Portions of this IS-MND have been adapted from BCRCD 2020 (Big Chico Creek Forest Health Restoration Project IS-MND).

REFERENCES CITED

CalTrans. 2019. "List of eligible and officially designated State Scenic Highways (XLSX)." Excel spreadsheet. Last accessed 5/1/2023.

BCRCD. 2021 (Dec. 16). "Concow Pyrodiversity Project - Federal Lands Portion" Notice of Statutory Exemption from CEQA pursuant to Public Resources Code § 4799.05(d)(1). Filed with Butte County Clerk 12/16/2021.

BCAQMD. 2018. "Air Quality Standards and Air Pollutants." Last accessed at https://bcaqmd.org/planning/air-quality-standards-air-pollutants/ on 4/30/2023.

BCRCD. 2020 (April). "Initial Study-Mitigated Negative Declaration for the proposed Big Chico Creek Forest Health Restoration Project Butte County, California." Prepared by Tim Keesey with Don Hankins, Rhianna Dutra, Calli-Jane DeAnda, and Eli Goodsell.

Bolsinger, C.L. 1989. Shrubs of California Chaparral, Timberland, and Woodland: Area Ownership, and Stand Characteristics..

Butte County. 2012. "Deer Herd Migration Overlay Zones." Adopted Nov. 6, 2012. Last accessed online on 5/1/2023 at https://www.buttecounty.net/496/Zoning-Ordinance.

Plumas National Forest (Feather River Ranger District). 2021 (Nov. 4). Decision Memo for the Concow Pyrodiversity Project (PALS #59322). Available online at https://www.fs.usda.gov/project/plumas/?project=59322.

FRAP (Fire and Resource Assessment Program). 2022 (Nov. 21). "State Responsibility Area Fire Hazard Severity Zones: Butte County." Last accessed at https://osfm.fire.ca.gov/fire-hazard-severity-zones-maps-2022/ on 4/30/2023.

State Water Resources Control Board, Order WQ 2021-0026-DWQ, General Waste Discharge Requirements for Vegetation Treatment Activities Conducted in Conformance with the California Vegetation Treatment Program, *available online at* https://www.waterboards.ca.gov/water_issues/programs/nps/docs/vegetation_treatment/wqo2021_0026_dwq.pdf

Wiedinmeyer, C. and J. C. Neff. 2007. Estimates of CO2 from fires in the United States: Implications for carbon management. Carbon Balance and Management.

ATTACHMENT A

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment." Readers of this MMRP will notice that some measures are identified as "SPRs" while others are identified as mitigation measures. Standard project requirements (SPRs), which are considered part of the project description, have been designed into the project to avoid or minimize adverse effects. Most of these SPRs were originally developed for the CalVTPEIR environmental document, but remain just as useful in the context of this mitigated negative declaration (MND). In some cases, SPRs have been reworded slightly from their CalVTPEIR language to adapt them to the needs of this MND or to the local context of Concow, California. Some SPRs found in the CalVTPEIR were *not* carried over into this MMRP (for example, SPR AD-7 which imposes certain tracking requirements on all projects authorized via the CalVTPEIR, or SPRs which apply only in coastal zones) because they had no applicability to this project. However, the original numbering system of the SPRs was preserved, to make life easier for future CAL FIRE implementers in the field. Therefore, there are "missing numbers" in the sequence of SPRs in this MMRP.

Where potentially significant impacts remain after application of SPRs, mitigation measures have been identified to further reduce and/or compensate for those impacts. Mitigation measures are listed after all the SPRs, at the end of the MMRP document. Just as with SPRs, many relevant mitigation measures were imported in their entirety from the CalVTPEIR document. In some cases, mitigation measures have been reworded slightly from their CalVTPEIR language to adapt them to the needs of this MND or to the local context of Concow, California.

While only mitigation measures are required to be covered in an MMRP, both SPRs and mitigation are included in this MMRP. This should help the reader evaluate the effectiveness of the MMRP and assist in implementation of all environmental protection features.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to monitor the implementation of SPRs and mitigation measures in connection with the approval of this CEQA document and its use by project proponents. The attached table presents the text of each SPR and mitigation measure, the timing of its planned implementation, the implementing entity, and the entity with monitoring responsibility. The numbering of SPRs and mitigation measures follows the numbering used in the IS-MND. SPRs and mitigation measures mentioned more than once in the MND are not duplicated in the MMRP.

ROLES AND RESPONSIBILITIES

The Butte County RCD is the lead agency for adoption of this MMRP. CAL FIRE Butte Unit is the project proponent.

Unless otherwise specified herein, the project proponent is responsible for taking all actions necessary to implement the mitigation measures pursuant to Section 15097 of the State CEQA Guidelines according to the specifications provided for each measure, and for demonstrating that the action has been successfully completed.

The project proponent is responsible for overall administration of the project-specific MMRP and for verifying that staff members or contractors have completed the necessary actions for each measure.

REPORTING

The project proponent shall document and describe compliance with the required SPRs and mitigation measures either by adapting the project-specific MMRP table or preparing a separate post-project implementation report (referred to by CAL FIRE as a Completion Report).

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- SPRs and Mitigation Measures – This column provides the verbatim text of the applicable SPR or adopted mitigation measure.
- Timing – This column identifies the time frame in which the SPR or mitigation measure will be implemented. If an SPR or mitigation measure is already complete as of the time of filing of this MMRP, its status as completed will be noted.
- Implementing Entity – This column identifies the party responsible for implementing the SPR or mitigation measure.
- Verifying/Monitoring Entity – This column identifies the party responsible for verifying and monitoring implementation of the SPR or mitigation measure.

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
STANDARD PROJECT REQUIREMENTS (SPRS)			
Administrative Standard Project Requirements			
SPR AD-1 Project Proponent Coordination: CAL FIRE will meet with partners (e.g., Sierra Pacific Industries, Plumas National Forest) to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP).	Prior to treatment projects – **Done**	CAL FIRE BTU and partners (e.g., BCRCD)	CAL FIRE BTU
SPR AD-2 Delineate Protected Resources (Flagging and Mapping): The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly-visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. "Protected Resources" refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment projects. **Status as of 5/4/2023:** Sensitive resources have been mapped, but not flagged.	CAL FIRE BTU and partners (e.g., BCRCD)	CAL FIRE BTU
SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment projects – **Done**	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AD-4 Public Notifications for Prescribed Burning Or Road Closure: At least three days prior to the commencement of prescribed burning operations or to closing a road, the project proponent will do all of the following: 1) post signs at the locations below describing the activity/closure and its location and timing, and providing the contact information of a designated representative members of the public can contact if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape; and 4) post the same information on its social media feed. In addition to providing some reason(s) the prescribed fire activity is important and necessary (e.g. for community safety in the future, ecological and/or cultural objectives, etc.), the notification shall state that elevated noise levels including from helicopters and increased truck traffic are possible, and that activities may occur at night if that is the safest burn window. The notification need not specify a single day of operations but rather may state a longer window during which these activities are possible. Locations for notifications of road closure/prescribed burns: (1) At the intersection of Concow Road and Hwy 70 (near the "Dome Store"). (2) At the intersection of Any Mtn/Rim Rd and Hwy 70 (known as "Jarbo Gap" a.k.a. He'lim my'num pylum.) (3) Where Concow Rd turns from pavement to dirt, near its intersection with Green Forest Ln.	At least three days prior to prescribed burn activities	CAL FIRE BTU	CAL FIRE BTU
SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent will post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	One to three days prior to the prescribed burn activities	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AD-7 is not relevant to the Concow Pyrodiversity Project *SPR AD-8 Duration of Access for Maintenance and Monitoring.* For CAL FIRE projects, during contract development, CAL FIRE will include access to the treated area over a period of at least 10 years to assess treatment effectiveness in achieving desired fuel conditions and other objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Prior to treatment projects	CAL FIRE BTU	CAL FIRE BTU
Aesthetics and Visual Resources: No Standard Project Requirements; based on the site's location and vegetation type, no additional aesthetic measures are necessary for this project.			

Agricultural Resources and Forestry: No Standard Project Requirements because no agricultural land is present in the project area. No standing forest or potential for viable timber operations are present in the project area due to repeated catastrophic fire.			
Air Quality Standard Project Requirements			
SPR AQ-1 Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AQ-2 Submit Smoke Management Plan: The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. This SPR applies only to prescribed burning treatment activities, including maintenance burns.	Prior to prescribed burn treatment activities.	CAL FIRE BTU	CAL FIRE BTU
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan. The burn plan will: • Include consumption objectives and measurable ecological objectives • Be designed to result in the minimum soil burn severity that is consistent with achieving objectives • Be designed to facilitate cross-boundary burning with the U.S. Forest Service • Prioritize fall burning (i.e., Oct 1-Jan 31), which is ecologically preferable and would require no additional biological mitigations, as long as doing so is consistent with public safety. (Between Feb 1-Sept 30, burns require some additional mitigation for at least one type of rare plant, bumblebee, or bird.)	Prior to prescribed burn treatment activities.	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures: ► Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol. ► If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations. ► The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113. Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR AQ-5 Avoid Naturally Occurring Asbestos: The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per the georeferenced map provided in the MND. Any NOA-related guidance provided by the applicable air district will be followed (see AQ section of MND). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment projects. A georeferenced map has been produced (see MND) showing likely NOA areas	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Biological Resources Standard Project Requirements			
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this PEIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection for biological resources to help determine the environmental setting of a project site. The qualified surveyor will 1.) identify and document sensitive resources, such as riparian or other sensitive habitats, sensitive natural community, wetlands, or wildlife nursery site or habitat (including bird nests), and 2.) assess the suitability of habitat for special-status plant and animal species. The surveyor will also record any incidental wildlife observations. For each treatment project, habitat assessments will be completed at a time of year that is appropriate for identifying habitat. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:	Done, in 2021.	BCRCD/CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-1 continued: 1. Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided. If suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). 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. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. 2. Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided. In this case, further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7).	**Done, in 2021.** Sensitive biological resources in the project area were found to fall into both categories [(1) and (2)], as discussed at length in the MND.	BCRCD/CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-2: Require Biological Resource Training for Workers. Per request from CDFW, the project proponent will staff fuel reduction crews with personnel experienced with biological resources monitoring that will survey ahead of crews to identify sensitive species and habitats that may have not been discovered during pre-project surveys (i.e. nesting/denning wildlife, wetlands, streams, etc.). The staff identified should have the authority to stop or redirect project-related activities to avoid and minimize impacts to sensitive species and habitats. If wildlife cannot move safely out of the area by itself, consider postponing the project-related activity, choosing another site, or calling CDFW for guidance The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist, such as e.g. the Sierra Pacific Industries botanist, prior to beginning a treatment project. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. 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, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (i.e. without being handled). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Conduct biological resource training for crew members and contractors ***prior to*** treatment projects; contact CDFW or USFWS, as appropriate, if any wildlife protected by CESA or ESA is encountered and cannot leave the site on its own (without being handled) ***during*** treatment projects	CAL FIRE BTU	CAL FIRE BTU

SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats: If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will: ► require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of *A Manual of California Vegetation* (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website). ► map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment projects; **done in 2021.**	CAL FIRE partner (BCRCD)	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR-BIO-4: Riparian Zone Requirements: Design treatment to avoid loss or degradation of riparian habitat function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats: · Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys. Native riparian vegetation should be retained in a well distributed multi-storied stand composed of a diversity of species similar to the diversity found before the start of treatment activities. · Treatments in riparian areas 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 characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes 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. · Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements.	During design of treatment projects and during implementation.	CAL FIRE BTU and partner BCRCD.	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Riparian zone requirements, continued: · Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service). · Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided. · Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints. · The project proponent will notify CDFW when required by pursuant to California Fish and Game Code Section 1602 prior to implementing any treatment activities in riparian habitats. Notification will identify the treatment activities, map the vegetation to be removed, identify the impact avoidance identification methods to be used (e.g., flagging), and appropriate protections for the retention of shaded riverine habitat, including buffers and other applicable measures to prevent erosion into the waterway. *Consistent with California Forest Practice Rules Section 916.9(v) (February 2019 version), deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW. This SPR applies to all treatment activities and treatment types including treatment maintenance.	During design of treatment projects and during implementation.	CAL FIRE BTU and partner BCRCD.	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-5 is coast-related and not relevant to the Concow Pyrodiversity Project ***SPR BIO-6: Prevent Spread of Plant Pathogens.*** When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., stands with a black oak component, which is most of the project area), the project proponent will implement the following best management practices to prevent the spread of plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle): ► Clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk, such as any coastal county from Monterey to Humboldt and into Southern Oregon. ► Include training on *Phytophthora* diseases and other plant pathogens in the worker awareness training. California black oak is susceptible to *Phytophthora*. ► Minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, limiting use of mechanized equipment, and using common sense. ► Do not unnecessarily move around soil and plant material within the site, especially between areas with dead or sickly trees/shrubs and areas with healthy trees/shrubs. ► Clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from areas with dead or sickly trees/shrubs and areas to healthy trees/shrubs, or between widely separated portions of a treatment area. ► The Concow Pyrodiversity site is not considered to be contaminated with Phytophthora as of 2023; however, should it or other sites in Butte County become contaminated in the future, follow the most current guidance for implementers issued by UC Ag and Natural Resources Extension. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-7: Survey for Special-Status Plants. When SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status. For plants not listed under CESA/ESA, botanical surveys are presumed to be good for at least 5 years unless there is a major disturbance such as a new wildfire; therefore, any protocol-level surveys since the last stand-replacing wildfire (for the project area, that would be the 2018 Camp Fire) may be used in lieu of new surveys. For plants listed under CESA/ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS. ► If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, and the treatment can be carried out during the dormant season for that species or when the species has completed its annual lifecycle, such that the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would prevent the species from reestablishing following treatment, then no surveys are necessary. For example, even if a prescribed burn were to be implemented in 2035, no plant surveys would be necessary as long as the prescribed fire can be implemented between Oct 1 and Jan 31.	Prior to treatment projects – **Done in 2021.**	CAL FIRE partner (BCRCD)	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-8 is coast-related and not relevant to the Concow Pyrodiversity Project *SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife.* The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail): ▪ 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, or invasive wildlife. For example, if a machine was recently used to chip or masticate Scotch broom in Paradise, clean it well before moving it to the Concow Pyrodiversity project site. ▪ For all heavy equipment and vehicles traveling off road, pressure wash or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species. Pressurized air can be effective. ► Inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas. ► Stage equipment in areas free of invasive plant infestations when possible. ► Where reasonable, identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal- IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles; ► When treating invasive plants, destroy the biomass onsite to eliminate seeds and propagules and prevent reestablishment, or dispose of it offsite at an appropriate waste collection facility. Transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport. ► implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, monarch overwintering sites) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Exception: If the treatment prescription is designed based on assumed presence of the species, then no protocol-level surveys are necessary. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Frog surveys: Done; completed in 2021. Bumblebee surveys: Assume presence May 15-Sept 30. Spotted owl: If treating Mar 1-Aug 15, then survey no more than 14 days prior to treatment, and if nest is found, give it a 0.25 mile buffer. Goshawk: If treating Feb 15-Sept 15, then survey no more than 14 days prior to treatment, and if nest is found, give it a 0.25 mile buffer. Common birds, including raptors (see SPR BIO-12): If treating Feb 1-Aug 31, then survey prior to treatment (<3 days prior, unless otherwise specified in a protocol).	CAL FIRE partner (BCRCD)	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). If temporary fencing is required for prescribed herbivory treatment, a wildlife-friendly fencing design will be used. The fencing design will meet the following standards: ► Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal; and keep electric netting-type fencing electrified at all times or laid down while not in use. ► Charge temporary electric fencing with intermittent pulse energizers; continuous output fence chargers will not be permitted. ► Allow wildlife to jump over easily without injury by installing fencing that can flex as animals pass over it and installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult ungulates to jump over it. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass. ► Be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers. This SPR applies only to prescribed herbivory, including treatment maintenance.	Prior to and during prescribed herbivory (grazing) activities only.	CAL FIRE BTU	CAL FIRE BTU
SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the MND. The active nesting season will be defined by the qualified RPF or biologist, or assumed to be Feb 1- Aug 31. (Raptors in particular may start nesting sooner, especially toward the bottom of Flea Valley and in warm and dry years). If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based	Conduct a survey for common nesting birds (if conducting treatments from Feb 1-Aug 31) within 3 days before treatment; if an active nest is observed, implement avoidance strategies prior to and during treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity

SPR BIO-12, continued on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted within 3 days before treatment. (Some special status birds require surveys no more than 14 days before treatment so it may be operationally preferable to survey for all birds 3 days before treatment.) The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, and will be conducted during the active time of day for target species, typically close to dawn and/or dusk. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). Generally, the project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. But if an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following: ➢ (a) Establish Buffer. The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. ➢ (b) Modify Treatment. The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment			

modifications will be determined by the project proponent in coordination with the qualified RPF or biologist.

- (c) Defer Treatment. The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.

Fish and Game code 3503 **prohibits** the take of nests. The fact that an avoidance action may be difficult, costly or infeasible cannot over-ride the Fish and Game Code 3503, or the Migratory Bird Treaty Act.

Additionally,

► Monitor Active Raptor Nest During Treatment. A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.

► Retention of Raptor Nest Trees. Trees with visible raptor nests, whether occupied or not, will be retained.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Cultural Resources Including Tribal Cultural Resources: Standard Project Requirements			
SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures.	Prior to treatment projects – **Done**	CAL FIRE partner (BCRCD)	CAL FIRE BTU
SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following: · A written description of the treatment location and boundaries. · Brief narrative of the treatment objectives. · A description of the activities used (e.g., prescribed burning, mastication) and associated acreages. · A map of the treatment area at a sufficient scale to indicate the spatial extent of activities. · A request for information regarding potential impacts to cultural resources from the proposed treatment. · A detailed description of the depth of excavation, if ground disturbance is expected. In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File.	Prior to treatment projects – **Done**	CAL FIRE partner (BCRCD)	CAL FIRE BTU
SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey.	Prior to treatment projects – **Done**	CAL FIRE partner (BCRCD)	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or historical resources near or within the treatment area. 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.	Prior to treatment projects – **Done**	CAL FIRE partner (BCRCD)	CAL FIRE BTU
SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment projects **(done)** but ***also applies during treatment projects.***	Prior to treatment: CAL FIRE partner (BCRCD). During treatment: CAL FIRE BTU.	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR CUL-6 Treatment of Tribal Cultural Resources: The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith effort, the proponent determines that any or all feasible measures have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment projects - **Done**	CAL FIRE BTU	CAL FIRE BTU
SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities. Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment projects.	CAL FIRE partner (BCRCD)	CAL FIRE BTU
SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment projects	CAL FIRE BTU	CAL FIRE BTU

SPR CUL-9: Project-specific Rule for Discovery of New Cultural Resources During Treatments: **a)** If a movable tribal cultural resource is found during or prior to ***mechanical*** treatment (e.g., pestle stone or other tool), please move the object out of the mechanical treatment unit. Please take a GPS point of the new location and send it to both THPOs (Mooretown Rancheria and Konkow Valley Band of Maidu Indians). At time of this writing, the contact for Mooretown is Matthew Hatcher and the contact for KVBMI is Matthew Gramps-Williford. Do not move any artifacts found during or prior to manual, grazing, or Rx treatments. **b)** Any previously undiscovered tribal cultural resource found during or prior to ***any*** type of treatment should be reported with GPS data to both nearest THPOs (i.e., Mooretown Rancheria and Konkow Valley Band of Maidu Indians). At time of this writing, the contact for Mooretown is Matthew Hatcher and the contact for KVBMI is Matthew Gramps-Williford. **c)** In addition to the above, Any previously undiscovered tribal *or historic* cultural resource found during or prior to ***any*** type of treatment should be reported with GPS data to a professional archaeologist, who can record the site t the NorthEast Information Cenet (NEIC).	During treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Energy Standard Project Requirements: N/A to this project			
Geology and Soils Standard Project Requirements			
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are no longer filled with water to such an extent that runoff is likely to occur). 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. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.	During treatment projects if there is a "chance" (30 percent or more) of rain within the next 24 hours	CAL FIRE BTU	CAL FIRE BTU

SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. 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. If use of heavy equipment is required in saturated areas, use other measures to minimize soil compaction such as: (a) operating on organic debris (slash), (b) using low ground pressure vehicles, or (c) operating on frozen soils/snow covered soils. Existing compacted road surfaces are exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities, including treatment maintenance.	During treatment projects if there is a "chance" (30 percent or more) of rain within the next 24 hours	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical or prescribed herbivory treatments, with mulch/slash or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If treatment activities could result in substantial sediment discharge from soil disturbed by machinery, animal hooves, or being bare, organic material from mastication or mulch will be dispersed onto 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it should be packed into the ground surface where possible, with heavy equipment, so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical and prescribed herbivory treatment activities, including treatment maintenance.	During mechanical and prescribed herbivory activities that result in exposure of bare soil over 50 percent or more of the treatment area	CAL FIRE BTU	CAL FIRE BTU
SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. If erosion control measures are not properly implemented, they will be remediated prior to the first rainfall event per SPR GEO-3 and GEO-8. Additionally, the project proponent will inspect for evidence of erosion 3-4 times during the rainy season. Inspections should be conducted during or after large storm or rainfall events (i.e., ≥ 1.5 inches in 24 hours), including the first such event of the season. Any area of erosion that can be safely accessed and will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies to all treatment types, including treatment maintenance.	After any treatment, prior to or immediately after the start of the next rainy season.	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR GEO-5 Drain Stormwater via Water Breaks: In all areas that can be safely accessed and are capable of generating storm runoff because they are either compacted or bare linear features (e.g. firelines), the project proponent will drain these features via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules (February 2019 version) or will cover the features with well-trampled slash that is in good ground contact. This SPR applies only to any treatment type, including treatment maintenance.	During and immediately after treatment activities	CAL FIRE BTU	CAL FIRE BTU
SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area. The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to all treatment types, including treatment maintenance.	During burn pile construction	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will: (1) Prohibit use of heavy equipment where slopes are steeper than 50 percent, because in most of the Concow Pyrodiversity project area, the erosion hazard rating is high or extreme. (2) Prohibit prescribed herbivory treatments in areas with over 50 percent slope. This SPR applies to all treatment activities, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR GEO-8 Areas of Geologic Instability:: The project proponent will require a qualified geologist to evaluate mechanical treatment areas that cross areas of geologic instability (see map 8 in MND). The geologist will determine the potential for landslide, erosion, or other issue related to unstable soils and will either (a) identify measures the project proponent must take such that substantial erosion or loss of topsoil would not occur, or (b) prohibit the heavy equipment from cross the area of geological instability.	Prior to and during treatment projects in areas of geologic instability (see map 8).	CAL FIRE BTU	CAL FIRE BTU
SPR-GEO-9: Notify Water Board Staff: When the project proponent is ready to start work on a unit, the project proponent will notify the Central Valley Regional Water Quality Control Board by email and send an estimated project implementation schedule for that unit (or for the entire project area if it is available). This is to allow CVRWQCB staff the opportunity to observe parts of the project if they are in the area. The project proponent need not wait for confirmation of receipt from the CVRWQCB before starting work.	Prior to first treatment	CAL FIRE BTU	CAL FIRE BTU
Greenhouse Gas Emissions Standard Project Requirements			
SPR GHG-1 is CalVTPEIR-related and not relevant to the Concow Pyrodiversity Project.			
SPR GHG-2: Implement GHG Emission Reduction Techniques The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design. Also, per SPR-NOI-2, the project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes.	Prior to burning	CAL FIRE BTU	CAL FIRE BTU
Hazards and Hazardous Materials Standard Project Requirements			
SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project proponent will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed. Place drip pans or absorbent materials under equipment when performing maintenance, refueling, and when not in use. This SPR applies to all treatment activities, including treatment maintenance.	During treatment activities.	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HAZ-2 Require Spark Arrestors: The project proponent will require mechanized hand tools to have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities, including treatment maintenance.	During manual treatment activities	CAL FIRE BTU	CAL FIRE BTU
SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	During manual treatment activities	CAL FIRE BTU	CAL FIRE BTU
SPR HAZ-4 Prohibit Smoking in Vegetated Areas: The project proponent will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPRs HAZ-5 through HAZ-8 do not apply because the project does not include any herbicide.			
Hydrology and Water Quality Standard Project Requirements			
SPR HYD-1 Comply with Water Quality Regulations: Project proponents must conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non- commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, and ash, must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions.	Prior to and during treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HYD-2 Avoid Construction of New Roads: Based on the project designs that were provided to BCRCD, the project proponent)CAL FIRE BTU) will not construct or reconstruct any roads. (Reconstruction is defined as cutting or filling involving less than 50 cubic yards/0.25 linear road miles.) The project proponent cannot stop the landowner (e.g., Sierra Pacific Industries) from legally constructing new temporary or permanent roads on its property.	Prior to treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR HYD-3 Water Quality Protections for Prescribed Herbivory: The project proponent will include the following water quality protections for all prescribed herbivory treatments: ► Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas will be identified in the treatment prescription and excluded from prescribed herbivory project areas using temporary fencing or active herding. A buffer of approximately 50 feet will be maintained between sensitive and actively grazed areas. ► Water will be provided for grazing animals in the form of a portable water source located outside of environmentally sensitive areas. ► Treatment prescriptions will be designed to protect soil stability. Grazing animals will be herded out of an area if accelerated soil erosion is observed. This SPR applies to prescribed herbivory treatment activities, including maintenance grazing.	Prior to and during prescribed herbivory (grazing) treatment activities	CAL FIRE BTU	CAL FIRE BTU
SPR HYD-4 WLPZs (Watercourse and Lake Protection Zones): The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is adapted from 14 CCR Section 916 .5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Note the table shows how wider WLPZs are required for steep slopes.	Establish WLPZs during design of treatment projects; implement WLPZ protections during treatment projects	CAL FIRE BTU	CAL FIRE BTU

Procedures for Determining Watercourse and Lake Protection Zone (WLPZ) widths

Water Class	Class I	Class II	Class III	Class IV
Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for nonfish aquatic species. 3) Includes wetlands (see Map #6 in the MND). 4) Excludes Class III waters that are tributary to Class I waters.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high-water flow conditions after completion of timber operations.	Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.
WLPZ Width (ft) – Distance from top of bank to the edge of WLPZ				
< 30 % Slope	75	50	Sufficient to prevent the degradation of downstream beneficial uses of water. Determined on a site-specific basis.	
30-50 % Slope	100	75		
>50 % Slope	150	100		

Source: 14 CCR Section 916.5 [936.5, 956.5] (February 2019 version)

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HYD-4, continued: The following WLPZ protections will be applied for all treatments: ► Treatment activities with WLPZs will retain at least 75 percent surface cover and undisturbed area to act as a filter strip for raindrop energy dissipation and for wildlife habitat. If this percentage is reduced a qualified RPF will provide the project proponent with a site- and/or treatment activity-specific explanation for the percent surface cover reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced percent as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). This requirement is based on 14 CCR Section 916.4 [936.4, 956.4] Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version). ► Equipment, including tractors and vehicles, must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry. ► Equipment used in vegetation removal operations will not be serviced in WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas. ► WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately. ► Burn piles will be located outside of WLPZs. ► No fire ignition (nor use of associated accelerants) will occur within WLPZs however low intensity backing fires may be allowed to enter or spread into WLPZs. ► Within Class I and Class II WLPZs, locations where project operations expose a continuous area of mineral soil 800 square feet or larger shall be treated for reduction of soil loss. Disturbances that are created after October 15 shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies. These may include but are not limited to mulching (i.e., scattering slash), rip-rap, or site-appropriate native grass seeding.	Establish WLPZs during design of treatment projects; implement WLPZ protections during treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HYD-4, continued: Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse. Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes. ► Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Establish WLPZs during design of treatment projects; implement WLPZ protections during treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR HYD-5 is N/A because the Concow Pyrodiversity Project does not include herbicide application.	N/A	N/A	N/A

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HYD-6 Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during project activities, the project proponent will coordinate with owner of the system or feature to repair any damage and restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and potentially after project implementation	CAL FIRE BTU	CAL FIRE BTU
SPR HYD-7 Notify CDFW before altering any river, stream, or lake bed, including streams that are dry part of the year. Fish and Game Code 1602 requires any person, state or local governmental agency, or public utility to notify CDFW prior to beginning any activity that may do one or more of the following: Divert or obstruct the natural flow of any river, stream, or lake; Change the bed, channel, or bank of any river, stream, or lake; Use material from any river, stream, or lake; or Deposit or dispose of material into any river, stream, or lake. Please note that "any river, stream, or lake" includes those that are dry for periods of time as well as those that flow year round. Although project planners don't anticipate the project will involve any of the above four actions, ultimately it is the responsibility of crews on the ground to monitor activities during implementation and to notify the appropriate agencies (in this case, CDFW) before a lake or stream bed is altered. If crews are not certain a particular activity requires notification, they should go ahead and notify CDFW. CDFW requires a Lake and Streambed Alteration (LSA) Agreement when a project activity may substantially adversely affect fish and wildlife resources. More information can be found at https://wildlife.ca.gov/Conservation/Environmental-Review/LSA.			
Land Use and Planning: No Standard Project Requirements; none needed, based on the project's nature, location, and zoning			
Mineral Resources: No Standard Project Requirements needed, based on the project's nature and location			

Noise Standard Project Requirements			
SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: Not applicable to this project because no sensitive receptors are within ¼ mile of project and nighttime prescribed fire activities (with advance community notification per SPR-AD-4) may be the best option for this project to meet windows and objectives.	N/a	N/a	N/a
SPR NOI-2 Equipment Maintenance: The project proponent will require that all powered treatment 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. This SPR applies to all activities, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities, including treatment maintenance.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: When operationally feasible, the project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to minimize noise exposure.	During treatment projects	CAL FIRE BTU	CAL FIRE BTU
SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities, including treatment maintenance. This SPR applies even when no sensitive noise receptors are present (i.e., schools), because idling time is also an air quality issue. ***SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors is not relevant to this project due to its remote location.***	During treatment projects	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/ Monitoring Entity
Population and Housing: No Standard Project Requirements needed for this resource area for this project			
Public Services: No Standard Project Requirements needed for this resource area for this project			
Recreation Standard Project Requirements			
SPR REC-1 Notify Recreational Users of Temporary Closures. If a treatment activity would require temporary closure of a public recreation area or facility (including closing a privately controlled access route to public lands), the project proponent will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities, including treatment maintenance.	Approximately 2 weeks prior to treatment projects requiring temporary closure of public recreation areas or facilities. This includes any temporary closure of an access route to public lands even though the access route may be privately controlled.	CAL FIRE BTU	CAL FIRE BTU
Transportation Standard Project Requirements			
SPR TRAN-1 Implement Traffic Control during Treatments: Prior to treatment activities, project proponent will work with the agency(ies) with jurisdiction over affected roadways (e.g. Butte County Public Works and Plumas National Forest) to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in transportation impacts (obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes). If needed, a TMP will be prepared, containing measures to reduce potential traffic impacts. Measures could include: construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities; flaggers for lane closures to provide temporary traffic control; treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic; haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times. **Roads and smoke:** Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways, including possibly even Highway 70. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include monitoring of smoke onto public roadways. Traffic control operations will be initiated in the event burns/smoke could affect traffic safety along any roadways. This SPR applies to all treatment activities including maintenance.	Prior to and potentially during treatment projects	CAL FIRE BTU	CAL FIRE BTU

Utilities and Service Systems: No Standard Project Requirements needed for this resource area for this project
Wildfire: No additional Standard Project Requirements needed for this resource area for this project; all concerns are addressed by other SPRs
Mandatory Findings of Significance: No Standard Project Requirements needed for this resource area for this project
End of SPRs. Mitigation Measures start on the next page.

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
MITIGATION MEASURES Note: Only mitigation measures applicable to the Concow Pyrodiversity Project have been reproduced here. Mitigation measures will appear to be out of sequence because measures not applicable to the Concow Pyrodiversity Project have been removed.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Biological Resources Mitigation Measures			
***There is no MM-BIO-1a.** *Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA* Four non-listed special-status plant species (i.e., species not listed under ESA or CESA, but CRPR-ranked 1 or 2) have been determined to be present through application of SPR BIO-1 and SPR BIO-7. Therefore, the project proponent will implement the following measures to avoid loss of individuals and maintain habitat function of occupied habitat: • For dissected-leaf toothwort: Avoid building handline within 20' at any time. Avoid mastication within 50' at all times. Avoid prescribed grazing within 50' between Feb. 1-May 31; the rest of the year, no grazing buffer is needed. Fire is OK, but if using ignitions or accelerants between Feb. 1-May 31, leave a 50' buffer around the plant. No buffer is needed for fire the rest of the year. Do not spread lop-and-scatter material on the population. • Mildred's Clarkia: No mastication, manual treatments, or prescribed herbivory Feb 1 – July 30 within a 50' buffer of the plants. The rest of the year, no buffer is required. Fire is acceptable year-round, but if fire is applied during the period Feb 1 – July 30, do not re-apply fire during the period Feb 1 – July 30 for the next 4 years. • Lewis Rose's Ragwort: Avoid building handline within 2' at any time. Train crews to recognize and avoid this shrub, which is easily recognized year-round. Do not use ignitions or accelerants within 50' at any time. Do not spread lop-and-scatter material on the population. • Jepson's Onion: Avoid building handline within 20' at any time. Do not use ignitions or accelerants within 50' at any time. Do not spread lop-and-scatter material on the population. For all species: ► Mark rare plant buffer boundaries with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The size and shape of the buffer zone may be adjusted if a qualified botanist determines that a smaller buffer will be sufficient to avoid loss of or damaging to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate size and shape of the buffer zone will be determined by a qualified botanist and will depend on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds	Prior to treatment projects. See MND for botanical survey results (georeferenced maps)	CAL FIRE BTU	CAL FIRE BTU

may inform an appropriate buffer size and shape. ➢ If new special-status plant populations (other than the 4 species above) are discovered during implementation, consult a qualified botanist (such as the Sierra Pacific Industries botanist) for further direction.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
MM BIO-1b, continued: If the above mitigation measures are infeasible, and a qualified botanist determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing all feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c (Compensatory Mitigation) will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the special-status plants would benefit from treatment in the occupied habitat area even though some of the non-listed special-status plants may be killed during treatment activities. For a treatment to be considered beneficial to non-listed special-status plants, the qualified botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources). The substantial evidence will be shared with BCRCD and Sierra Pacific Industries. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants if Applicable It's unlikely, but if significant impacts on special-status plants cannot feasibly be avoided as specified above under Mitigation Measure BIO-1b, then the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. (One example of how this might happen is if one of the non-listed plant species in the project area were to become listed under ESA or CESA. This would abruptly elevate the significance of harming/taking even one individual of the population, compared to a non-listed species.) The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. If the special-status plant taxa are listed under ESA or CESA at the time the strategy is being developed, then the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment.	Prior to treatment projects, in the unlikely event it becomes necessary.	NA	NA

MM- BIO-1c, continued: The first priority for compensatory mitigation will be preserving and enhancing existing populations outside of the treatment area in perpetuity, or if that is not an option because existing populations that can be preserved in perpetuity are not available, one of the following mitigation options will be implemented by the project proponent instead: ► creating populations on mitigation sites outside of the treatment area through seed collection and dispersal (annual species) or transplantation (perennial species); ► purchasing mitigation credits from a CDFW- or USFWS-approved conservation or mitigation bank in sufficient quantities to offset the loss of occupied habitat; and ► if the affected special-status plants are not listed under ESA or CESA, compensatory mitigation may include restoring or enhancing degraded habitats so that they are made suitable to support special-status plant species in the future. If relocation efforts are part of the Compensatory Mitigation Plan, the plan will include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements. For relocation: ► the extent of occupied area will be substantially similar to the affected occupied habitat and will be suitable for self-producing populations. Re-located/re-established populations will be considered suitable for self-producing when: ► habitat conditions allow for plants to reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and ► reestablished habitats contain an occupied area comparable to existing occupied habitat areas in similar habitat types in the region.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
MM BIO-1c continued: If preservation of existing populations or creation of new populations is part of the mitigation plan, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands and actions (e.g., the number and type of credits, location of mitigation bank or easement, restoration or enhancement actions), parties responsible for the long-term management of the land, and the legal and funding mechanisms (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. If mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long- term management, conservation easement holders, long-term management requirements, funding assurances, and success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. If mitigation includes restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. If the loss of occupied habitat cannot be offset (e.g., if preservation of existing populations or creation of new populations through relocation efforts are not available for a certain species), and as a result treatment activities would substantially reduce the number or restrict the range of listed plant species, then the treatment will not qualify as within the scope of this PEIR. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species No species listed under ESA, but at 8 species that are listed or candidates for listing under CESA or are Fully Protected under California law, were found to have some potential to occur in the project area during reconnaissance surveys (conducted pursuant to SPR BIO-1) or were actually detected during focused or protocol-level surveys (conducted pursuant to SPR BIO-10). These species are: Foothill yellow-legged frog*, Rana boylii*; State Endangered; actually present (2021) Bald Eagle, *Haliaeetus leucocephalus*; State Endangered and Fully Protected; some potential to occur Golden Eagle, *Aquila chrysaetos*; Fully Protected; potential to occur American peregrine falcon, *Falco peregrinus anatum*; Fully Protected; potential to occur Great gray owl, *Strix nebulosa*; State Endangered; some potential to occur California Black Rail, *Laterallus jamaicensis coturniculus;* State Threatened and Fully Protected; some potential to occur Western bumblebee, *Bombus occidentalis occidentalis*, State Candidate for Endangered listing, (this candidacy having been most recently reinstated 9/30/2022); potential to occur Crotch's bumblebee, *Bombus crotchii*, State Candidate for Endangered listing, (this candidacy having been most recently reinstated 9/30/2022); some potential to occur Therefore, the project proponent will avoid adverse effects to the species by implementing the following. • Foothill Yellow-Legged Frog: Already adequately protected by WLPZs. • Bald Eagle: Already adequately protected by SPRs-BIO-10 and -12. • Golden Eagle: Already adequately protected by SPRs-BIO-10 and -12. • American peregrine falcon: Already adequately protected by SPRs-BIO-10 and -12. • Great Gray Owl: Already adequately protected by SPRs-BIO-10 and -12. • California Black Rail: Already adequately protected by SPRs-BIO-10 and -12 and WLPZs • Western Bumblebee: Requires protection by MM-BIO-2g. • Crotch's Bumblebee: Requires protection by MM-BIO-2g. All species: If piles are burned in the spring, cursory wildlife occupation inspections will be conducted on each pile prior to ignition. If any listed species are seen utilizing a pile, that pile will not be burned and CDFW be notified. All piles that are burned individually by hand (i.e., not burned as part of a broadcast burn) will be lit from one side while observing for wildlife evacuation, prior to full ignition.	Prior to and during treatment projects. See PSA for biological survey results and buffers.	CAL FIRE BTU	CAL FIRE BTU

If additional special-status wildlife are found during implementation, project proponent will: ***Avoid Mortality, Injury, or Disturbance of Individuals*** The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals: 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly- accepted science and considering published agency guidance; ***OR*** 2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species. ► For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c (Compensatory Mitigation). ► Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided. A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not maintain habitat function for the special-status species, the project proponent will implement ***Mitigation Measure BIO-2c***.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) Four other special-status wildlife species (i.e., species not listed under CESA or ESA, nor California Fully Protected, but meeting the definition of special status[1]) were found to have potential to occur reconnaissance surveys, but are not already protected by other SPRs. These species are as follows: • Fisher, *Pekania pennanti*; species of local concern; low probability to occur since Camp Fire, but could travel through area • Silver-haired Bat, *Lasionycteris noctivagans*; species of local concern; potential to occur • American porcupine, *Erethizon dorsatum*; species of local concern; potential to occur • Yuma myotis, *Myotis yumanensis,* species of local concern; potential to occur The project proponent will avoid or minimize adverse effects to the species by implementing the following. • Fisher: Although likely present before the Camp Fire, this species has little remaining habitat in the project area (but may be encountered in the small unburned northwestern portion of Phase 1. If a fisher is found, do not disturb it; if it appears agitated or appears to have young nearby, flag the area for at least a 500' buffer and work in a different area. Maintain *existing suitable habitat for fisher* at a canopy closure/density consistent with the species' habitat needs, as researched and determined by a qualified RPF or biologist consulting best available literature. • Silver-haired bat: This species requires good-sized patches of snags for its maternity habitat. Snags near water are especially valuable. The area is rich in snags and the interior of the project area, esp. near Flea Valley Creek, is not accessible for snag removal, except by fire. When mechanically or manually treating, leave 4 snags/acre (or more!), ideally somewhat clustered together. • American porcupine: If a porcupine is found, do not disturb it; if it appears agitated or appears to have young nearby, flag the area for at least a 100' buffer and work in a different area. • Yuma Myotis: This species utilizes mostly caves, mines and structures, so would be minimally affected by the project, especially if prescribed fire activities take place during the recommended window of Oct 1-Jan 31.	Prior to and during treatment projects	CAL FIRE	CAL FIRE

[1] I.e., animals identified by CDFW as species of special concern; species considered locally significant, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section 15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G); or species that otherwise meets the definition of rare or endangered under CEQA Section 15380.

However, if additional special-status wildlife are discovered during implementation, project proponent will:

Avoid Mortality, Injury, or Disturbance of Individuals:

If any occupied sites are found, for all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around any occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100 feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be shared with BCRCD and Sierra Pacific Industries. Whether the animals were found and what buffers were implemented will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

- No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest, den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician will monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in mortality, injury or disturbance to special-status species.
- For prescribed burning, the project proponent will implement the treatment outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, the qualified RPF or biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance of the species. The project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate limited operating periods.

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
MM-BIO-1b, continued Maintain Habitat Function ▶ For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following: ▪ Leave at least 4 snags per acre following all treatments, except prescribed burning. ▶ A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain or be improved for the affected species after implementation of the treatment. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding habitat function. A qualified RPF or biologist with knowledge of the special-status wildlife species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status wildlife species' habitat or because the loss of special-status wildlife would substantially reduce the number or restrict the range of a special-status wildlife species. If the project proponent determines the impact on special-status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment.	Prior to and during treatment projects	CAL FIRE	CAL FIRE

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable. It's unlikely, but if significant impacts on special-status animals cannot feasibly be avoided as specified above under Mitigation Measures BIO-2a, BIO-2b, or BIO- 2g cannot be implemented and the project proponent determines that additional mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensation may include: 1. Preserving existing habitat outside of the treatment area in perpetuity; this may entail purchasing mitigation credits and/or lands from a CDFW- or USFWS-approved entity in sufficient quantity to offset the residual significant impacts, generally at a ratio of 1:1 for habitat; and 2. Restoring or enhancing existing habitat within the treatment area or outside of the treatment area (including decommissioning roads, adding perching structures, removing existing perching structures, or removing existing movement barriers or other existing features that are adversely affecting the species). The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanisms for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been…	Prior to treatment projects	CAL FIRE	CDFW or USFWS

MM BIO-2c, continued

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
….implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. Review requirements are as follows: The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. For species listed under ESA or CESA or a California Fully Protected Species, the project proponent will submit the mitigation plan to CDFW and/or USFWS/ NOAA Fisheries for review and comment. For other special-status wildlife species the project proponent may consult with CDFW and/or USFWS regarding the availability and applicability of compensatory mitigation and other related technical information. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.			
Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) Suitable habitat for 2 special-status bumble bees (both candidates for CESA listing at the time of this writing in May 2023) was identified during review under SPR BIO-1. Candidates for CESA listing receive the same protections as ESA-listed species. Therefore, the project proponent will implement the following measures, as feasible:	Prior to and during treatment projects.	CAL FIRE BTU	CAL FIRE BTU

MM-BIO-2g, continued

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
► Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season. ► Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area. ► Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area). *CESA and ESA Listed Species:* A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or species that are candidates for listing under CESA or ESA, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed bumble bees would still occur, or degradation of occupied (or assumed to be occupied) habitat would still occur such that its function would not be maintained, an Incidental Take Permit will possibly be obtained (Fish & G. Code § 2081 (b); Cal. Code Regs., tit. 14, §§ 783.2-783.8) ***and/or*** the project proponent will implement Mitigation Measure BIO-2c. *Other Special-status Species (i.e., in the event the species' Candidate listing is reviewed and denied):* A qualified RPF or biologist with knowledge of the special- status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status bumble bees would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status bumble bees or degradation of occupied (or assumed to be occupied) habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee species would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to special-status bumble bee species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be shared with BCRCD, and Sierra Pacific Industries. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.			

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Cultural Resources including Tribal Cultural Resources: Mitigation Measures			
Mitigation Measure CUL-1: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.	During ground-disturbing activities	CAL FIRE BTU	CAL FIRE BTU

Standard Project Requirements and Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Greenhouse Gas Emissions			
Mitigation Measure GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the *National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire* (NWCG 2018): ▶ reduce the total area burned by leaving large fuels (e.g., large logs, snags) unburned; ▶ reduce the total area burned through mosaic burning; ▶ burn when fuels have a higher fuel moisture content; ▶ reduce fuel loading by removing fuels before ignition. Methods to remove fuels include mechanical treatments if they include removal, manual treatments that include removal, prescribed herbivory, and biomass utilization; and ▶ schedule burns before new fuels appear. As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.	Prior to and during prescribed burns	CAL FIRE BTU	CAL FIRE BTU