CalVTP Project ID: 2022-33

Attachment A

Standard Project Requirements (SPR) & Mitigation Measures (MM)

EC-1: AESTHETIC AND VISUAL RESOURCE STANDARD PROJECT REQUIREMENTS

- SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.
- SPR AES-2 Avoid Staging within Viewsheds: The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

EC-2: AGRICULTURE AND FOREST RESOURCES

- NONE

EC-3: 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.
- SPR AQ-2 Submit Smoke Management Plan: Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. When required by the air district, ~~T~~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. Example of a smoke management plan is in Appendix PD-2.~~ This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.
- SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan for broadcast burns using a template developed by the California State-Certified Burn Boss curriculum development committee, or equivalent that includes elements required to obtain burn permits, and any additional elements that are needed to ~~The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating.~~ design a burn that will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. This may, but is not required to, include outputs from fire behavior modeling programs.

The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

- 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.
  - Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. 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~~ any time it is visibly being tracked out onto public paved roadways, 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.

  This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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 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. Any NOA-related guidance provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- SPR AQ-6 Prescribed Burn Safety Procedures: ~~Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of CAL FIRE crew including the implementation of an approved Incident Action Plan (IAP).~~ An Incident Action Plan (IAP) will be prepared that includes elements that are appropriate for the size and scope of the burn as necessary to ensure personnel and public safety. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. A safety briefing will be conducted with all resources on site for each operational period for all prescribed burning treatments to ensure personnel safety considerations and prescribed fire objectives. ~~The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations.~~ This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.
- MM AQ-1 Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques:

  Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology,

there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible.

Techniques for reducing emissions may include, but are not limited to, the following:

- Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment.
    - Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria:
    - meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer;
    - be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables;
    - contain no fatty acids or functionalized fatty acid esters; and
    - have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines.
- Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment.
- Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes.
- Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NO_X and PM.

EC-4: ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES STANDARD PROJECT REQUIREMENTS

Cultural resource SPRs and mitigation measures require that qualified individuals implement components of the measures. The requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including supervised designees) as long as they are qualified.

Qualified Archaeologist: To be qualified, an archaeologist would hold a Prehistoric Archeology, Historic Archeology, Conservation, Cultural Anthropology, or Curation degree from an accredited university and meet the Secretary of Interior's Qualifications Standards (36 CFR Part 61). The project proponent will review the resume and approve the qualifications of the archaeologists.

Archaeologically Trained Resource Professional: To be qualified, an archaeologically-trained resource professional would hold a valid Archaeological Training Certificate issued by CAL FIRE and the Board or equivalent state or local agency training or certification. Work performed by an archaeologically-trained resource professional must be reviewed and approved by a qualified archaeologist.

- SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in

accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

- 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. If the project proponent has knowledge of and established relationships with geographically affiliated tribes, they may opt to use their own list in place of the NAHC's list and notify the specific tribes with known affiliation with the project area. 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. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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.
- 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.

- 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.
- 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.
- MM CUL-2 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.

EC-5: BIOLOGICAL RESOURCES STANDARD PROJECT REQUIREMENTS

Biological resource SPRs and mitigation measures require that qualified individuals implement components of the measures. The requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including biologist, botanist, ecologist, Registered Professional Forester, biological technician, or supervised designees working at the direction of a qualified professional) as long as they are qualified for the task at hand.

Qualified Registered Professional Forester (RPF) or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting field surveys of relevant species or resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable about state and federal laws regarding the protection of special-status species, and 6) have experience with CDFW's California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS). The project proponent will review the resume and approve the qualifications of RPFs or biologists. If species-specific protocol surveys are performed, surveys would be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or USFWS approval to conduct such surveys, if required by certain protocols.

Qualified RPF or Botanist: To be qualified, an RPF or botanist would 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018), or experience conducting such botanical field surveys under the direction of an experienced botanical field surveyor, 4) be familiar with the *California Manual of Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/), and 5) be familiar with federal, state, and local statutes and regulations related to plants and plant collecting. The project proponent will review the resume and approve the qualifications of RPFs or botanists.

Qualified RPF or Biological Technician: To be qualified, an RPF or biological technician would 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting biological monitoring of relevant species or resources, and 4) be knowledgeable about state and federal laws regarding the protection of special-status species. The project proponent will review the resume and approve the qualifications of RPFs or biological technicians.

- 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, no more than one year prior to the submittal of the PSA for each treatment project, and no more than one year between completion of the PSA and implementation of the treatment project. 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 and no more than one year prior to the submittal of the PSA, unless it can be demonstrated in the Biological Resources Discussion in the PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If

more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. 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:

Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that 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.

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

PROJECT-SPECIFIC IMPLEMENTATION

Special-Status Plants

- To avoid impacts without implementation of protocol-level surveys described under SPR BIO-7 on the non-ESA-listed and non-CESA-listed annual and perennial geophyte species identified in Table B-2 of Attachment B, in treatment areas where species with these lifeforms are the only special-status plant species with potential to occur, only non-ground-disturbing treatment activities (i.e., manual treatments, broadcast burning) will be implemented and only during the dormant season for these species (i.e., when the plant has no aboveground parts), which would typically occur after seed set and before germination, if feasible. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et. al 2008). If the limited operating period for annual and perennial geophyte species (i.e., only non-ground-disturbing treatment activities conducted only during the dormant season) is determined to be infeasible, then protocol-level surveys will be required per SPR BIO-7. Note that ground-disturbing treatment activities (i.e., mechanical treatments, pile burning) may result in impacts on these plant species even when dormant, and will not be conducted without prior implementation of SPR BIO-7).

Special-Status Wildlife

- To avoid impacts on Cascades frog, Pacific tailed frog, and southern torrent salamander, a no-disturbance buffer of 20 feet will be implemented adjacent to all perennial (i.e., Class I and Class II) streams, seeps, ponds, and wet meadows, if feasible. If the 20-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented within suitable habitat areas.
- To avoid impacts on foothill yellow-legged frog, a no-disturbance buffer of 200 feet will be implemented adjacent to all perennial (i.e., Class I and Class II) streams, if feasible. If the 200-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented within suitable habitat areas.

- To avoid impacts on southern long-toed salamander, a no-disturbance buffer of 330 feet will be implemented adjacent to all perennial (i.e., Class I and Class II) streams and lakes, if feasible. If the 330-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented within suitable habitat areas.
- To avoid impacts on special-status nesting birds (i.e., American peregrine falcon, bald eagle, black swift, golden eagle, northern goshawk, olive-sided flycatcher), a limited operating period for prescribed burning, mechanical treatments, and manual treatments from February 1 to August 31 will be implemented within habitats determined to be suitable for these species by a qualified RPF or biologist, if feasible. If conducting some treatments outside of the nesting bird season is determined to be infeasible, then SPR BIO-10 will be implemented.
- To avoid impacts on northern spotted owl, the following measures will be implemented:
  - To determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the treatment area, a qualified RPF or biologist will review northern spotted owl occurrence data in the CNDDB and the project proponent will contact U.S. Forest Service biologists from Klamath National Forest and/or Six Rivers National Forest to obtain any recent survey and occurrence data for northern spotted owl that have not been made publicly available (e.g., in the CNDDB).
  - If a previously documented northern spotted owl nesting occurrence is present, a no-disturbance buffer and limited operating period will be implemented around the occurrence. The buffer size and limited operating period will be based on the type of treatment-related disturbances, following USFWS guidance, as follows:
    - *Habitat modification*. For treatment-related activities that modify habitat, including mechanical treatments, manual treatments, and pile burning activities, the no-disturbance buffer will be 0.25 mile around the nesting occurrence; project-related disturbances that modify habitat will be prohibited within this buffer during February 1–September 15.
    - *Loud and continuous noise without habitat modification*. For treatment-related activities that generate loud and continuous noise but do not modify habitat, the starting-point buffer size will be a maximum of 0.25 mile around the nesting occurrence; however, this buffer size may be reduced in consultation with USFWS and CDFW based on site-specific factors such as ambient noise levels, types and levels of existing or ongoing disturbances and land uses, type and intensity of the noise-generating project activity, and topography or other environmental variables that may affect sound attenuation and provide screening between the nesting occurrence and project activities. Project-related disturbances that generate loud and continuous noise without habitat modification will be prohibited within the applicable buffer during February 1–July 9.

  If the limited operating periods for previously reported nesting occurrences are determined to be infeasible without verification of current occupancy or activity by northern spotted owl at the time of treatment implementation (e.g., through protocol-level surveys or confirmation by the data source), then SPR BIO-10, which requires protocol-level surveys prior to treatment activities, will be implemented to determine current occupancy and nesting status and whether the limited operating period and no-disturbance buffer is currently applicable. For example, some previously documented nest records reported in CNDDB, Forest Service data, or other sources may be relatively old and may not reflect current conditions or occupancy by northern spotted owl. If protocol-level surveys are conducted to verify a previously reported nesting occurrence, and current nesting by northern spotted owl is confirmed, then the no-disturbance buffer and limited operating period will apply, as required in SPR BIO-10 and Mitigation Measure BIO-2a. If northern spotted owl nesting is not detected during protocol-level surveys, then the LOP and no-disturbance buffer around a previously reported nesting occurrence would not be required. See SPR BIO-10 for protocol survey specifications.

  - If habitat suitable for northern spotted owl is present in a treatment area with no recent record of surveys or detections, northern spotted owl presence would be assumed, and potential impacts will be avoided by implementing a no-disturbance buffer and limited operating period around the unsurveyed suitable habitat. The buffer and limited operating period specifications will vary by disturbance type and follow those described for nesting occurrences, above. For treatment planning purposes, preliminary identification of

habitat suitable for northern spotted owl in relation to proposed treatment activities may be based on the Forest Service's current and best available habitat suitability model and GIS layer for northern spotted owl (referred to as the NSO-EVEG layer), supplemented by field verification as needed. This habitat model and GIS layer is considered the best available data for preliminarily identifying nesting/roosting and foraging habitat for northern spotted owl in the project area and vicinity.

If the limited operating periods for unsurveyed suitable habitat are determined to be infeasible without determining current occupancy and nesting by northern spotted owl, similar to the options and approach described above for previously reported nesting records, then SPR BIO-10 and protocol-level surveys will be implemented prior to treatment activities to determine current presence or absence of the species and whether the limited operating period and no-disturbance buffer is currently applicable. If protocol-level surveys are conducted and current nesting by northern spotted owl is confirmed, then the no-disturbance buffer and limited operating period will apply, as required in SPR BIO-10 and Mitigation Measure BIO-2a. If northern spotted owl nesting is not detected during protocol-level surveys, then the LOP and no-disturbance buffer would not be required. See SPR BIO-10 for protocol survey specifications.

- To avoid impacts on special-status bumble bees (i.e., Franklin's bumble bee, Suckley's cuckoo bumble bee, western bumble bee), the following measures will be implemented:
    - *Franklin's bumble bee*. Recently, USFWS has identified high priority zones for Franklin's bumble bee based on past observations and habitat conditions surrounding those detection points, potential habitat suitability and the presence of significant floral resources. Currently, nearly all of the project area is located outside the high priority zones identified by USFWS; however, one location in the southernmost portion of the project area overlaps with a high priority zone. In areas identified by USFWS as high priority zones for Franklin's bumble bee, a limited operating period for mechanical treatment or prescribed burning in meadows from May 15 to September 30 will be implemented. For project activities implemented outside of high priority zones, no limited operating period for Franklin's bumble bee is required.

      If the limited operating period for Franklin's bumble bee is determined to be infeasible for certain treatments and meadow sites within USFWS-defined high priority zones while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, then SPR BIO-10 will be implemented to determine presence or absence of Franklin's bumble bee through surveys, in coordination with the USFWS Yreka office, and applicability of the limited operating period. See SPR BIO-10 for Franklin's bumble bee survey specifications.
    - *Western bumble bee and Suckley's cuckoo bumble bee*. A limited operating period for mechanical treatment or prescribed burning in meadows from May 15 to August 31 will be implemented, if feasible. If the limited operating period is determined to be infeasible for certain treatments and meadow sites while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, MKWC may consult with CDFW on a site- or treatment-specific basis to further evaluate whether the limited operating period would be required for a specific meadow site and treatment prescription. If the limited operating period is determined to be required for meadows occupied or potentially occupied by western bumble bee or Suckley's cuckoo bumble bee, MKWC will either: 1) initially implement the limited operating period without further review, or 2) implement SPR BIO-10, which requires surveys to determine presence or absence and confirm the applicability of required protection measures (e.g., the limited operating period) based on presence or absence of the species. See SPR BIO-10 for bumble bee survey specifications.
- To avoid impacts on fisher and Humboldt marten, within habitat determined to be suitable for the species by a qualified RPF or biologist, a limited operating period for mechanical treatments and prescribed burning activities from March 1 to June 30 will be implemented, if feasible. For Humboldt marten, suitable habitat is defined as breeding, denning, resting, and foraging habitat, which corresponds with USFWS's nomenclature and definition of this habitat category. USFWS has described the specific physical or biological features (PBFs) that define

breeding, denning, resting, and foraging habitat, referred to as "PBF 1" (USFWS 2021). For treatment planning purposes, preliminary identification of denning, resting, and foraging habitat (PBF 1) for Humboldt marten in relation to proposed treatment activities may be based on the Forest Service's current and best available habitat suitability model and GIS layer for Humboldt marten, which specifically identifies habitat modeled as PBF 1. Because this GIS habitat layer is derived primarily from remotely-sensed vegetation data and may over- or underestimate actual habitat suitability in specific locations, for treatment areas located within the geographic extent of this layer, site-specific review of aerial imagery and/or field verification to determine whether habitat in the treatment area meets the specific criteria that define PBF 1 will be conducted before treatment implementation, as needed. If conducting some mechanical and prescribed burning treatments outside of the fisher and Humboldt marten maternity season (May 1–June 30) is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented.

- To avoid impacts on ringtail, a limited operating period for mechanical treatments and prescribed burning activities from April 15 to June 30 will be implemented within habitats determined to be suitable for this species by a qualified RPF or biologist, if feasible. If conducting some mechanical and prescribed burning treatments outside of the ringtail maternity season (April 15–June 30) is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented.
- To avoid impacts on special-status bat (i.e., pallid bat, Townsend's big-eared bat) maternity colonies, a limited operating period for mechanical treatments, manual treatments, and prescribed burning from April 1 to August 31 will be implemented within habitats determined to be suitable for these species by a qualified RPF or biologist, if feasible. If it is infeasible to follow the limited operating period, focused or protocol-level surveys will be required per SPR BIO-10.

Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided. 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).

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

- SPR BIO-2 Require Biological Resource Training for Workers: The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist 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 (without being handled). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SENSITIVE NATURAL COMMUNITIES AND OTHER SENSITIVE HABITATS

- 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.
- SPR BIO-4: 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 conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities.
  - Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are 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 to the extent feasible 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. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. 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.
  - 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.

- Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry.
- The project proponent will notify CDFW 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.
- In consideration of spatial variability of riparian vegetation types and condition and consistent with California Forest Practice Rules Section 916.9(v) (February 2019 version), a different set of vegetation retention standards and protection measures from those specified in the above bullets may be implemented on a site-specific basis if the qualified RPF and the project proponent demonstrate through substantial evidence that alternative design measures provide a more effective means of achieving the treatment objectives and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. 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.

- SPR BIO-5 Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub: The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. An ecological definition of type conversion is used in the CalVTP PEIR for assessment of environmental effects: a change from a vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy herbaceous cover or annual grasslands. For the PEIR, type conversion is considered in terms of habitat function, which is defined here as the arrangement and capability of habitat features to provide refuge, food source, and reproduction habitat to plants and animals, and thereby contribute to the conservation of biological and genetic diversity and evolutionary processes (de Groot et al. 2002). Some modification of habitat characteristics may occur provided habitat function is maintained (i.e., the location, essential habitat features, and species supported are not substantially changed).

  During the reconnaissance-level survey required in SPR BIO-1, a qualified RPF or biologist will identify chaparral and coastal sage scrub vegetation to the alliance level and determine the condition class and fire return interval departure of the chaparral and/or coastal sage scrub present in each treatment area.

  For all treatment types in chaparral and coastal sage scrub, the project proponent, in consultation with a qualified RPF or qualified biologist will:

  - Develop a treatment design that avoids environmental effects of type conversion in chaparral and coastal sage scrub vegetation alliances, which will include evaluating and determining the appropriate spatial scale at which the proponent would consider type conversion, and substantiating its appropriateness. The project proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale.
  - The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes, patches

representing a range of middle to old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion.

These SPR requirements apply to all treatment activities and all treatment types, including treatment maintenance.

Additional measures will be applied to ecological restoration treatment types:

- For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types.
- Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved.
- A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. Biological considerations that may inform a deviation from the minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology.
- If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity.

These SPR requirements apply to all treatment activities and only the ecosystem restoration treatment type, including treatment maintenance.

A determination of compliance with the SB 1260 prohibition of type conversion in chaparral and coastal sage scrub is a statutory issue separate from CEQA compliance that may involve factors additional to the ecological definition and habitat functions presented in the PEIR, such as geographic context. It is beyond the legal scope of the PEIR to define SB 1260 type conversion and statutory compliance. The project proponent, acting as lead agency for the proposed later treatment project, will be responsible for defining type conversion in the context of the project and making the finding that type conversion would not occur, as required by SB 1260. The project proponent will determine its criteria for defining and avoiding type conversion and, in making its findings, may draw upon information presented in this PEIR.

- 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., Ione chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of *Phytopthora* and other 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;
  - include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training;
  - minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment;
  - minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination;

- clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and
- follow the procedures listed in Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat (Working Group for *Phytoptheras* in Native Habitats 2016).

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

SPECIAL-STATUS PLANTS

- SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will 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.

  If potentially occurring special-status plants are listed under CESA or 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.

  For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this PEIR, surveys will not be required under the following circumstances:

  - If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys.
  - If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment.

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

Project-Specific Implementation

- If the limited operating period for annual and perennial geophyte species (i.e., non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys for these species will be conducted prior to implementation of treatments.
- Protocol-level surveys will be conducted for perennial species prior to implementation of treatments.

INVASIVE PLANTS AND WILDLIFE

- 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 all heavy equipment and vehicles traveling off road, pressure wash, if feasible, 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;
- 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 unless there are no uninfested areas present within a reasonable proximity to the treatment area;
- 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. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles;
- treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and
- 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.

Project-Specific Implementation

The Klamath Alliance for Regional Invasive Species Management (KARISM) is a multiagency group composed of non-governmental organizations, tribes, federal agencies (e.g., National Forests), resource conservation districts, and state agencies. Mid Klamath Watershed Council works with partners through KARISM to conserve native plant species and communities through the management of invasive species in the Klamath Region of California. This region warrants its own invasive species management area due to considerations unique to the Klamath Mountains such as remote location, ecological diversity, rugged terrain, and tribal sovereignty. Best practices provided by KARISM will be used during project implementation.

WILDLIFE

- 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. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed.

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

Project-Specific Implementation

- If the 20-foot no-disturbance buffer for Cascades frog, Pacific tailed frog, and southern torrent salamander is determined to be infeasible, to avoid impacts on the species, focused visual encounter surveys for these species will be conducted prior to treatment activities within 20 feet of perennial (i.e., Class I and Class II) streams, seeps ponds, and wet meadows. If Cascades frogs, Pacific tailed frogs, or southern torrent salamanders are identified during focused surveys, Mitigation Measure BIO-2a (Cascades frog) and BIO-2b (Pacific tailed frog, southern torrent salamander) will be implemented.
- If the 200-foot no-disturbance buffer for foothill yellow-legged frog is determined to be infeasible, to avoid impacts on the species, focused visual encounter surveys for this species will be conducted prior to treatment activities within 200 feet of perennial (i.e., Class I and Class II) streams. If foothill yellow-legged frogs are identified during focused surveys, Mitigation Measure BIO-2b will be implemented.
- If the 330-foot no-disturbance buffer for southern long-toed salamander is determined to be infeasible, to avoid impacts on the species, focused visual encounter surveys for this species will be conducted prior to treatment activities within 330 feet of perennial (i.e., Class I and Class II) streams and lakes. If southern long-toed salamanders are identified during focused surveys, Mitigation Measure BIO-2b will be implemented.
- Because no-disturbance buffers for Scott Bar salamander and Siskiyou Mountains salamander are not feasible, to avoid impacts on these species, focused surveys (i.e., walk and turn surveys) will be conducted in habitat suitable for the species within treatment areas that are within the limited ranges of these species and that contain rocky areas or are located within 50 feet of rocky talus habitat prior to implementing treatment activities. If Scott Bar salamanders or Siskiyou Mountains salamanders are detected during focused surveys, then Mitigation Measure BIO-2a will be implemented.
- Because no-disturbance buffers for western pond turtle are not feasible, to avoid impacts on western pond turtle, focused visual encounter surveys for the species and for potentially suitable burrows will be conducted within habitat areas suitable for the species prior to treatment activities within approximately 1,500 feet of aquatic habitat (i.e., streams, ponds). If burrows potentially suitable for western pond turtle are detected, the RPF or qualified biologist will inspect the burrow to determine whether it is occupied (e.g., using a burrow scope). If western pond turtles are identified during focused surveys, Mitigation Measure BIO-2b for this species will be implemented.
- If the limited operating period for nesting birds is determined to be infeasible, to avoid impacts on special-status birds (i.e., American peregrine falcon, bald eagle, black swift, golden eagle, northern goshawk, olive-sided flycatcher), focused surveys (i.e., nest searches) for nests of these species will be conducted prior to implementing treatment activities during the nesting bird season (February 1–August 31). Prior to conducting focused surveys, the project proponent will contact U.S. Forest Service biologists from Klamath National Forest or Six Rivers National Forest to obtain any recent survey and occurrence data for northern goshawk that have not been made publicly available (e.g., in the CNDDB). Nest surveys for northern goshawk will follow established protocols for the species (i.e., *Northern Goshawk Inventory and Monitoring Technical Guide*; US Forest Service 2006). If active special-status bird nests are observed during focused surveys, then mitigation measures BIO-2a (for American peregrine falcon, bald eagle, and golden eagle) and BIO-2b (for black swift, northern goshawk, and olive-sided flycatcher) will be implemented.
- If the limited operating period for northern spotted owl is determined to be infeasible, to avoid impacts on the species, protocol-level surveys for northern spotted owl will be conducted by a qualified RPF or biologist in suitable

nesting habitat within a 0.25-mile buffer surrounding the treatment area prior to implementation of treatment activities. For survey planning purposes, preliminary identification of habitat suitable for northern spotted owl nesting in relation to proposed treatment activities may be based on the Forest Service's current and best available habitat suitability model and GIS layer for northern spotted owl (referred to as the NSO-EVEG layer), supplemented by field verification as needed. Surveys for northern spotted owl will be conducted pursuant to the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* (USFWS 2012). If nesting northern spotted owls are identified during protocol-level surveys, Mitigation Measure BIO-2a will be implemented.

- If the limited operating period for Franklin's bumble bee is determined to be infeasible for certain treatment and meadow sites within USFWS-defined high priority zones while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, to avoid impacts on the species, SPR BIO-10 will be implemented and focused surveys for Franklin's bumble bee will be conducted in coordination with the USFWS Yreka office prior to implementing mechanical treatments or prescribed burning in meadows. Survey methods will follow procedures outlined in the rusty-patched bumble bee protocol (USFWS 2018) or any subsequently published protocol for or applicable to Franklin's bumble bee. If Franklin's bumble bees are identified during focused surveys by a qualified RPF or biologist, Mitigation Measure BIO-2a will be implemented.
- If the limited operating period for western bumble bee and Suckley's cuckoo bumble bee is required (see SPR BIO-1) but determined to be infeasible for certain treatment and meadow sites while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, SPR BIO-10 will be implemented and focused surveys for western bumble bee and Suckley's cuckoo bumble bee will be conducted prior to implementing mechanical treatments or prescribed burning in meadows. Survey methods will follow procedures outlined in the rusty-patched bumble bee protocol (USFWS 2018) or any subsequently published protocol for or applicable to western bumble bee and Suckley's cuckoo bumble bee. If western bumble bees or Suckley's cuckoo bumble bees are identified during focused surveys by a qualified RPF or biologist, Mitigation Measure BIO-2a will be implemented.
- Because no-disturbance buffers and limited operating periods for American badgers are not feasible, to avoid impacts on American badgers, a focused survey for the species and for potential dens will be conducted prior to implementing treatments in habitat suitable for the species (i.e., grassland, open woodland). If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.
- If the limited operating period for fisher and Humboldt marten is determined to be infeasible, to avoid impacts on the species, focused surveys for fisher and Humboldt marten, including non-invasive survey methods (e.g., trail cameras, track plates, hair snares), will be conducted prior to implementing mechanical treatments and prescribed burning during the fisher and Humboldt marten maternity season (May 1–June 30) within habitat suitable for the species. For Humboldt marten, suitable habitat is defined as denning, resting, and foraging habitat, which corresponds with USFWS's nomenclature and definition of this habitat category. USFWS has described the specific physical or biological features (PBFs) that define breeding, denning, resting, and foraging habitat, referred to as "PBF 1" (USFWS 2021). For survey planning purposes, preliminary identification of denning, resting, and foraging habitat (PBF 1) for Humboldt marten in relation to proposed treatment activities may be based on the Forest Service's current and best available habitat suitability model and GIS layer for Humboldt marten, which specifically identifies habitat modeled as PBF 1. Because this GIS habitat layer is derived primarily from remotely-sensed vegetation data and may over- or underestimate actual habitat suitability in specific locations, for treatment areas located within the geographic extent of this layer, site-specific review of aerial imagery and/or field verification to determine whether habitat in the treatment area meets the specific criteria that define PBF 1 will be conducted before treatment implementation, as needed. Because no formal survey protocol for determining Humboldt marten presence/absence or den locations has been developed and adopted, MKWC will request from USFWS review or input on the survey design and protocol proposed for a treatment area before initiating marten surveys. If presence of fisher or Humboldt marten is assumed in lieu of conducting surveys, or an active den is identified during focused surveys by a qualified RPF or biologist, mitigation measures BIO-2a (for Humboldt marten) and BIO-2b (for fisher) will be implemented.

- Gray Wolf
  - Because no-disturbance buffers and limited operating periods for gray wolf are not feasible, to avoid impacts on gray wolf, the following measures will be implemented:
    - To determine whether gray wolves have been documented in or in the vicinity of a treatment area, a qualified RPF or biologist will contact CDFW (Kent Laudon, Kent.Laudon@wildlife.ca.gov, 530.215.0751) before implementation of treatment activities to obtain general information about documented gray wolf activity within or in the vicinity of a treatment area that has not been made publicly available.
    - If gray wolf activity (e.g., occurrences or overlapping home range) has been documented in a treatment area, pursuant to information provided by CDFW, then treatment activities will not be initiated in the treatment area until CDFW have provided further guidance. Mitigation Measure BIO-2a will be implemented.
    - If gray wolf activity has not been documented in a treatment area and the treatment area does not overlap the home range of a documented gray wolf or gray wolf pack pursuant to information provided by CDFW, and these agencies concur that the species is unlikely to occur in the treatment area, then the project will proceed without surveys.
    - If gray wolf occurrences have not been documented in a treatment area and the treatment area does not overlap a home range for a documented gray wolf or gray wolf pack, but presence of gray wolves cannot be ruled out by CDFW (e.g., a documented home range is close to the treatment area, there is otherwise not enough information available to rule out potential presence), then focused surveys for gray wolf activity will be conducted within the treatment area and a buffer of 1 mile surrounding the treatment area. Focused surveys will be conducted by a qualified RPF or biologist and will include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether gray wolves are present in a treatment area. If the species is detected during focused surveys, then Mitigation Measure BIO-2a will be implemented and treatment activities will not be initiated in the treatment area until CDFW have provided further guidance. Additional surveys may be required to determine whether an active gray wolf natal den or rendezvous site is present within or adjacent to a treatment area.
    - If an active den or rendezvous site is detected in or adjacent to a treatment area, then Mitigation Measure BIO-2a will apply.
- If the limited operating period for ringtail is determined to be infeasible, to avoid impacts on the species, focused surveys for ringtail, including non-invasive survey methods (e.g., trail cameras, track plates, hair snares), will be conducted within habitat suitable for the species prior to implementing mechanical treatments and prescribed burning during the ringtail maternity season (April 15–June 30). If presence of ringtail is assumed or an active den is identified during focused surveys by a qualified RPF or biologist, Mitigation Measure BIO-2a will be implemented.
- If the limited operating period for special-status bats is determined to be infeasible, to avoid impacts on special-status bats (i.e., pallid bat, Townsend's big-eared bat), focused surveys for maternity roosts of these species will be conducted prior to implementing prescribed burning, mechanical treatments, or manual treatments during the bat maternity season (April 1–August 31). If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats will be implemented.
- 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 CalVTP PEIR. The active nesting season will be defined by the qualified RPF or biologist.

  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 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 at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. 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).

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 feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following measures:

- 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.
- 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.
- 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.

Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by a project proponent to avoid disturbance to raptor nests:

- **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.

- **MM BIO-1a Avoid Loss of Special-Status Plants Listed under ESA or CESA:** If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway), exceptions to this requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based 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. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer 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 buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (and associated use of accelerants) will occur within 50 feet of listed plants.

  For species listed under ESA or CESA, if the project proponent cannot avoid loss by implementing no-disturbance buffers, the project proponent will implement Mitigation Measure BIO-1c.

  The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS, as appropriate depending on species status and location, that the listed plants would benefit from treatment in the occupied habitat area even though some of the listed plants may be lost during treatment activities. For a treatment to be considered beneficial to listed special-status plants, the qualified RPF or 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), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to listed plants, no compensatory mitigation for loss of individuals will be required.

- **MM BIO-1b Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA:** If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement the following measures to avoid loss of individuals and maintain habitat function of occupied habitat:

  - Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will

generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or 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 RPF or 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 may inform an appropriate buffer size and shape.

- Treatments may be conducted within this buffer if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.
- Treatments will be designed to maintain the function of special-status plant habitat. For example, for a fuel break proposed in treatment areas occupied by special-status plants, if the removal of shade cover would degrade the special-status plant habitat despite the requirement to physically or seasonally avoid the special-status plant itself, habitat function would be diminished and the treatment would need to be modified or precluded from implementation.
- No fire ignition (and associated use of accelerants) will occur within the special-status plant buffer.

A qualified RPF or botanist with knowledge of the special-status plant 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 would not maintain habitat function of the special-status plant habitat (i.e., the habitat would be rendered unsuitable) or because the loss of special-status plants would substantially reduce the number or restrict the range of a special-status plant species. If the project proponent determines the impact on special-status plants would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c 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 RPF or 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), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.

- **MM BIO-2a Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities):** If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following.

  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.
    - 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.

Maintain Habitat Function

The project proponent will design treatment activities to maintain the habitat function, by implementing the following:

- While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
- If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable 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 [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained.

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.

Project-Specific Implementation

- If Cascades frog, Scott Bar salamander, or Siskiyou Mountains salamander are detected during focused surveys, the project proponent will require flagging areas for avoidance in which no treatment activities will occur, installation of exclusionary fencing, biological monitoring, or other measures recommended by CDFW as necessary to avoid injury to or mortality of individuals of these species. If impacts will remain significant under CEQA and the project proponent determines that additional mitigation is necessary to reduce significant impacts, Mitigation Measure BIO-2c will be required, and incidental take permitting under CESA may be required pursuant to consultation with CDFW.

- If nesting northern spotted owls are identified during protocol-level surveys, a no-disturbance buffer and limited operating period (LOP) will be implemented around the nest site. The buffer size and LOP will be based on the type of treatment-related disturbances, following USFWS guidance, as follows:
    - *Habitat modification*. For treatment-related activities that modify habitat, including mechanical treatments, manual treatments, and pile burning activities, the no-disturbance buffer will be 0.25 mile around the nest site; project-related disturbances that modify habitat will be prohibited within this buffer during February 1–September 15.
    - *Loud and continuous noise without habitat modification*. For treatment-related activities that generate loud and continuous noise but do not modify habitat, the starting-point buffer size will be a maximum of 0.25 mile around the nest site; however, this buffer size may be reduced in consultation with USFWS and CDFW based on site-specific factors such as ambient noise levels, types and levels of existing or ongoing disturbances and land uses, type and intensity of the noise-generating project activity, and topography or other environmental variables that may affect sound attenuation and provide screening between the nest site and project activities. Project-related disturbances that generate loud and continuous noise without habitat modification will be prohibited within the applicable buffer during February 1–July 9.
- If Franklin's bumble bee, western bumble bee, or Suckley's cuckoo bumble bee are detected during focused surveys, a no-disturbance buffer of at least 500 feet will be established around any identified nesting or overwintering sites, and no treatment activities will occur within this buffer until the nesting or overwintering site is no longer occupied as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW and USFWS.
- If active special-status bird nests are detected during focused surveys, a no-disturbance buffer of at least 0.5 mile will be established around active American peregrine falcon, bald eagle, and golden eagle nests; and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist. Additionally, trees containing bald eagle nests will not be removed pursuant to the Bald and Golden Eagle Protection Act.
- <u>Gray Wolf</u>
    - If an active natal den or rendezvous site is identified by a qualified RPF or biologist during focused surveys or any time during project implementation, then CDFW will be contacted immediately, and a no-disturbance buffer of at least one mile will be established around these features within which no treatment activities would occur. No-disturbance buffers may be larger and irregularly shaped, based on topography and concerns for revealing the exact site location.
    - No activities that create loud and continuous noise will occur within the no-disturbance buffer through June 30 for a natal den site or through August 31 for a rendezvous site pursuant to discussion and coordination with CDFW, which may result in modified distances or more flexible dates.
- If an active Humboldt marten den is detected during focused surveys or otherwise reported and confirmed, a no-disturbance buffer of at least 0.25 mile will be established around the den, and no treatment activities will occur within this buffer until the den is no longer occupied as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW and USFWS.
- <u>Ringtail</u>
    - If the limited operating period for ringtail is determined to be infeasible and ringtails are detected during focused surveys implemented under SPR BIO-10, then additional surveys will be required to determine whether an active ringtail den is present within the treatment area. If an active den is identified by a qualified RPF or biologist. A no disturbance buffer will be established around the den, the size of which will be determined through consultation with CDFW.
    - If the limited operating period for ringtail is determined to be infeasible and presence of ringtails is assumed, then the following avoidance and minimization measures will be required:

- Den Surveys. Within seven days prior to the start of mechanical treatments and prescribed burning during the ringtail maternity season (April 15–June 30), a qualified RPF or biologist will conduct a den search in the treatment area to be treated the next week. The qualified RPF or biologist will search for large trees (i.e., greater than 12 inches diameter at breast height [dbh]) with appropriate cavities (i.e., holes larger than 3 inches in diameter, cavities extending approximately 12 inches down from the cavity hole). If found, the qualified RPF or biologist will inspect the cavity using a cell phone with a flash, or other tools (e.g., borescopes) to determine whether ringtails are present. Areas (e.g., large trees) with appropriate den habitat, occupied or not, will be marked (i.e., with flagging, spray paint), for inspection during future sweeps (as described below). The qualified RPF or biologist will also search for dens in dense shrub habitat and will note any sightings of fleeing adult ringtails.
- Active Dens. If active ringtail dens are discovered during a den survey or daily sweep, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and mechanical treatments or prescribed burning will not proceed within the buffer until at least the end of the ringtail maternity season (April 15–June 30). The qualified RPF or biologist will confirm that the den is unoccupied before treatment activities resume. The 0.25-mile buffer will incorporate the den and an area greater than the typical ringtail home range in northern California (Wyatt, pers. comm., 2021). If an active den is discovered, CDFW (Cary Japp, Cary.Japp@wildlife.ca.gov; Andre Benoist, Andre.Benoist@wildlife.ca.gov) will be notified of the den and buffer location. CDFW will be provided an opportunity to visit the site and provide technical information on the size and shape of the den buffer.
- Daily Sweeps, Training, and Monitoring. If active ringtail dens are not discovered, the following measures will be implemented to avoid inadvertent destruction of active dens that eluded detection during the den search as well as take of adult ringtails and kits.
- Daily Sweeps. On the first morning of work for mechanical treatments prescribed burning, a qualified RPF or biologist will conduct a sweep of the area to be treated that and will search all habitat suitable for ringtails where mastication will occur that day (i.e., larger trees, dense brush, rock piles) for active dens or adults, including the trees with cavities previously marked by the qualified RPF or biologist. On following days, a trained contractor will search all areas previously marked by the qualified RPF or biologist for active dens (see training requirements below under "Training and Monitoring"). If an active den is discovered during a daily sweep, the qualified RPF or biologist will be notified, all work will stop, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and the requirements described above under "Active Dens" will be followed.
- Training and Monitoring. On the first morning of work for mechanical treatments or prescribed burning, the qualified RPF or biologist will provide biological resource training (as required under CalVTP PEIR SPR BIO-2) for all contractors. In addition to standard biological resource training, the qualified RPF or biologist will provide additional training specific to ringtail that will include the following elements:
  - Description of ringtail appearance (i.e., physical features, typical size);
  - Description of typical ringtail behavior;
  - Description of denning habitat suitable for ringtail, particularly in that week's treatment area. The approximate location of large trees with cavities that were previously marked will be noted;
  - Measures required during operation, including daily sweeps of habitat suitable for ringtail where mastication will occur that day (i.e., dense brush habitat, previously marked tree cavities), take avoidance measures, and required increased vigilance when operating in dense brush;
  - Measures required if a ringtail is spotted (i.e., all work halts until a qualified RPF or biologist can conduct a den search and sweep; if the qualified RPF or biologist observes a ringtail or confirms the contractor's observation, the occurrence will be reported to CDFW at Cary.Japp@wildlife.ca.gov and Andre Benoist, Andre.Benoist@wildlife.ca.gov);

- Measures required if a ringtail den is found (i.e., 0.25-mile no-disturbance buffer and requirements described above under "Active Dens" will be followed);
- Definition of and legal consequences for take of ringtail (i.e., $10,000 fine for each take and/or 1 year in jail); and
- Requirements for contacting CDFW (Cary.Japp@wildlife.ca.gov; Andre Benoist, Andre.Benoist@wildlife.ca.gov), which include the following circumstances:
  - ringtails observed during treatment activities (notify within 3 business days);
  - active ringtail den discovered (notify within 24 hours); and take of ringtail occurs (notify within 24 hours).

- MM BIO-2b Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities): If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.

  Avoid Mortality, Injury, or Disturbance of Individuals

  The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals:

  For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around 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 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 buffer as explained in the PSA, this 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 may will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment if the treatment activity has the potential to result in mortality, injury, or disturbance. 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.

Maintain Habitat Function

For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following:

- While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; tree snags; large raptor nests [including inactive nests]; downed woody debris). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
- If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that special-status wildlife with specific requirements for high canopy cover (e.g., northern goshawk, Sierra Nevada snowshoe hare) are present within a treatment area, then tree or shrub canopy cover within existing suitable 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.
- 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. 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.

Project-Specific Implementation

- If foothill yellow-legged frogs, Pacific tailed frogs, southern long-toed salamanders, southern torrent salamanders, or western pond turtles are detected during focused surveys, the project proponent will require flagging areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW

scientific collecting permit, and/or other measures recommended by CDFW as necessary to avoid injury to or mortality of these species.

- If active special-status bird nests are detected during focused surveys, a no-disturbance buffer of at least 0.25 mile for northern goshawk nests and at least 100 feet for black swift and olive-sided flycatcher will be established, and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist.
- If an active American badger den is detected during focused surveys, a no-disturbance buffer of at least 500 feet will be established around the den, and no treatment activities will occur within this buffer until the den is no longer occupied as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW.
- If an active fisher den is detected during focused surveys, a no-disturbance buffer of at least 500 feet will be established around the den, and no treatment activities will occur within this buffer until the den is no longer occupied as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW.
- If an active pallid bat or Townsend's big-eared bat roost is detected during focused surveys, then a no-disturbance buffer of 250 feet will be established around the roost, and mechanical treatments, manual treatments, and prescribed burning will not occur within this buffer.
- MM BIO-2c Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities): If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, 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 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-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities): If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented:
  - Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34).
  - Host plants for federally listed butterflies within the occupied habitat will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants.
  - Because prescribed herbivory could result in the indiscriminate removal of the host plants for federally listed butterflies, this treatment type will not be used within occupied habitat of any federally listed butterfly species, unless it is known that the host plant is unpalatable to the herbivore.
  - Treatment areas that are not occupied but are within the range of the federally listed butterfly will be divided into as many treatment units as feasible such that the entirety of the habitat is not treated within the same year.
  - Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained.

  If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.

  CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, 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 consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

  Other Special-status Species. 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 substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status

butterflies 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 special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly 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 included in the PSA. If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.

Table 3.6-34 Special-status Butterflies and Associated Host Plants

Butterfly Species	Host Plants
bay checkerspot butterfly	dwarf plantain (*Plantago virginica*), purple owl's clover (*Castilleja exserta*)
Behren's silverspot butterfly	blue violet (*Viola adunca*)
callippe silverspot butterfly	California golden violet (*Viola pedunculata*)
Carson wandering skipper	salt grass (*Distichlis spicata*)
El Segundo blue butterfly	seacliff buckwheat (*Eriogonum parvifolium*)
Hermes copper butterfly	spiny redberry (*Rhamnus crocea*)
Kern primrose sphinx moth	plains evening-primrose (*Camissonia contorta*), field primrose (*Camissonia campestris*)
Laguna Mountains skipper	Cleveland's horkelia (*Horkelia clevelandii*), sticky cinquefoil (*Drymocallis glandulosa*)
Lange's metalmark butterfly	naked-stemmed buckwheat (*Eriogonum nudum*)
lotis blue butterfly	seaside bird's foot trefoil (*Hosackia gracilis*)
Mission blue butterfly	lupine (*Lupinus* spp.)
Myrtle's silverspot butterfly	blue violet
Oregon silverspot butterfly	blue violet
Palos Verdes blue butterfly	Santa Barbara milkvetch (*Astragalus trichopodus*), common deerweed (*Acmispon glaber*)
San Bruno elfin butterfly	broadleaf stonecrop (*Sedum spathulifolium*), manzanita (*Arctostaphylos* spp.), huckleberry (*Vaccinuum* spp.)
Smith's blue butterfly	seacliff buckwheat, seaside buckwheat (*Eriogonum latifolium*)
Quino checkerspot butterfly	dwarf plantain, purple owl's clover

- MM BIO-2g Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities): If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then 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. [*see Project-Specific Implementation information*]
  - 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).
- Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September).

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 that are fully protected, 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 (in the event the Candidate listing is confirmed) or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

Other Special-status Species. 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 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 included in the PSA. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.

Project-Specific Implementation

The project proponent will implement the LOPs for Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee, if required, as explained under project-specific implementation information for the avoidance and minimization components of Mitigation Measure BIO-2a.

- MM BIO-3a Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands: The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3:

- Reference the *Manual of California Vegetation*, Appendix 2, Table A2, *Fire Characteristics* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/) or other best available information to determine the natural fire regime of the specific sensitive natural community type (i.e., alliance) present. The condition class and fire return interval departure of the vegetation alliances present will also be determined.
- Design treatments in sensitive natural communities and oak woodlands to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function of the affected sensitive natural community. Treatments will be designed to replicate the fire regime attributes for the affected sensitive natural community or oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fireline intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). Treatments will not be implemented in sensitive natural communities that are within their natural fire return interval (i.e., time since last burn is less than the average time required for that vegetation type to recover from fire) or within Condition Class 1.
- To the extent feasible, no fuel breaks will be created in sensitive natural communities with rarity ranks of S1 (critically imperiled) and S2 (imperiled).
- To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation relative cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands. In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation (i.e., if the sensitive natural community covers 100 acres, no more than 20 acres will be converted to create the fuel break).
- Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in Fire in California's Ecosystems (Van Wagtendonk et al. 2018) and the Manual of California Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/).
- Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory.

The feasibility of implementing the avoidance measures will be determined by the project proponent based on whether implementation of this mitigation measure will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. If the avoidance measures are determined by the project proponent to be infeasible, the project proponent will document the reasons implementation of the avoidance strategies are infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

- A qualified RPF or botanist with knowledge of the affected sensitive natural community 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 functions of the sensitive natural community or oak woodland. If the project proponent determines the impact on sensitive natural communities or oak woodlands would be less than significant,

no further mitigation will be required. If the project proponent determines that the loss or degradation of sensitive natural communities or oak woodlands would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b 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 sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or 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 community (or similar community) 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 sensitive natural communities or oak woodlands, no compensatory mitigation will be required.

- MM BIO-3b Compensate for Loss of Sensitive Natural Communities and Oak Woodlands: If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement the following actions:
  - Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by:
    - restoring sensitive natural community or oak woodland functions and acreage within the treatment area;
    - restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or
    - preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function.
  - The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands 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 mechanism 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 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 or enhanced habitat.

  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.

- MM BIO-3c Compensate for Unavoidable Loss of Riparian Habitat: If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following:
  - Compensate for unavoidable losses of riparian habitat acreage and function by:
    - restoring riparian habitat functions and acreage within the treatment area;
    - restoring degraded riparian habitat outside of the treatment area;

- purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
- preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value.

- The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and:

  1. For preserving existing riparian 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 mechanism 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 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.
  2. For restoring or enhancing riparian 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 or enhanced habitat.

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. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.

- MM BIO-4 Avoid State and Federally Protected Wetlands: Impacts to wetlands will be avoided using the following measures:

  - The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented.
  - The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards 2019 or current procedures).
  - A qualified RPF or biologist will establish a buffer around wetlands and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The buffer will be a minimum width of 25 feet but may be larger if deemed necessary. The appropriate size and shape of the buffer zone will be determined in coordination with the qualified RPF or biologist and will depend on the type of wetland present (e.g., seasonal wetland, wet meadow, freshwater marsh, vernal pool), the timing of treatment (e.g., wet or dry time of year), whether any special-status species may occupy the wetland and the species' vulnerability to the treatment activities, environmental conditions and terrain, and the treatment activity being implemented.
  - A qualified RPF or biological technician will periodically inspect the materials demarcating the buffer to confirm that they are intact and visible, and wetland impacts are being avoided.
  - Within this buffer, herbicide application is prohibited.
  - Within this buffer, soil disturbance is prohibited. Accordingly, the following activities are not allowed within the buffer zone: mechanical treatments, prescribed herbivory, equipment and vehicle access or staging.

- Only prescribed (broadcast) burning may be implemented in wetland habitats if it is determined by a qualified RPF or biologist that:
- No special-status species are present in the wetland habitat
- The wetland habitat function would be maintained.
- The prescribed burn is within the normal fire return interval for the wetland vegetation types present
- Fire containment lines and pile burning are prohibited within the buffer.

- No fire ignition (and associated use of accelerants) will occur within the wetland buffer, with the exception of meadows within which ignition may occur using propane torches or traditional methods (e.g., pitch sticks or grass bundles) only.MM BIO-5 Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites: The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10:
  - Retain Known Nursery Sites. A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment.
  - Establish Avoidance Buffers. The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. 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 potential adverse effects to special-status species.

EC-6: GEOLOGY, SOILS, AND MINERAL RESOURCE STANDARD PROJECT REQUIREMENTS

- SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if: (1) it is raining, (2) soils are saturated, and/or (3) soils are wet enough to be compacted by mechanical activities. ~~if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours~~ The project proponent will be prepared to completely suspend mechanical, prescribed herbivory, and herbicide treatment activities prior to the initiation of the rain event. 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 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, or (6) tire track imprints or hoof marks in the soil. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.
- 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, other measures such as operating on organic debris, using low ground pressure vehicles, or

operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

- SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical, prescribed herbivory, or prescribed burn 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 incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical, prescribed herbivory, and prescribed burns that result in exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

Some prescribed burning treatments that would result in exposure of bare soils over greater than 50 percent of a treatment area would be conducted in areas with an existing canopy of broadleaved trees. In these areas, leaf little covers areas of bare soil rapidly, providing natural stabilization of soils. In these areas, the risk of substantial erosion or landslide following prescribed burning activities would be low, and implementation of SPR GEO-3 may not be required.

- 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 after the first large storm or rainfall event (i.e., ≥ 1.5 inches in 24 hours) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.
- SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff 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). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.
- 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 (Busse et al. 2014). 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 mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.
- SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will:

  (1) Prohibit use of heavy equipment where any of the following conditions are present:

  (i) Slopes steeper than 65 percent.

  (ii) Slopes steeper than 50 percent where the erosion hazard rating is high or extreme.

(iii) Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake.

(2) On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to:

(i) Existing tractor roads that do not require reconstruction, or

(ii) New tractor roads flagged by the project proponent prior to the treatment activity.

(3) Prescribed herbivory treatments will not be used in areas with over 50 percent slope.

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

- SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue related to unstable soils and identity measures (e.g., those in SPR GEO-7) that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur. This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types, including treatment maintenance.

EC-7: GREENHOUSE GAS EMISSIONS STANDARD PROJECT REQUIREMENTS

- SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.
- MM 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 isolating and 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, manual treatments, 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.

EC-8: ENERGY

- NONE

EC-9: HAZARDOUS MATERIAL AND PUBLIC HEALTH AND SAFETY 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. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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 and all treatment types, including treatment maintenance.
- SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one backpack pump-type fire extinguisher filled with water~~per chainsaw.~~ and each vehicle would be equipped with the required hand tools for firefighting ~~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.
- 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.
- MM HAZ-3 Identify and Avoid Known Hazardous Waste Sites: Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials. If it is determined that hazardous materials sites could be located within the boundary of a treatment site, the project proponent will conduct a DTSC EnviroStor web search (https://www.envirostor.dtsc.ca.gov/public/) and consult DTSC's Cortese List to identify any known contamination sites within the project site. If a proposed mechanical treatment or prescribed burn is located on a site included on the DTSC Cortese List as containing potential soil contamination that has not been cleaned up and deemed closed by DTSC, the area will be marked and no prescribed burning or soil disturbing treatment activities will occur within 100 feet of the site boundaries. If it is determined through coordination with landowners or after review of the Cortese List that no potential or known contamination is located on a project site, the project may proceed as planned.

EC-10: HYDROLOGY AND WATER QUALITY STANDARD PROJECT REQUIREMENTS

- SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also 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, ash, and pesticides 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. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- SPR HYD-4 Identify and Protect 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 based on 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. Wider WLPZs are required for steep slopes.

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) 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 the protection zone				
< 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)

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 (~~n~~or use of associated accelerants) will not occur within WLPZs, except in meadows, within which ignition may occur using propane torches, or traditional methods including pitch sticks or grass bundles only. ~~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. Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers.

  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.

- 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 ensure that restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

EC-11: LAND USE AND PLANNING, POPULATION AND HOUSING

- NONE

EC-12: NOISE STANDARD PROJECT REQUIREMENTS

- SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) will occur during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship). Cities and counties in the treatable landscape typically restrict construction-noise (which would apply to vegetation treatment noise) to particular daytime hours. If the project proponent is subject to local noise ordinance, it will adhere to those to the extent the project is subject to them. If the applicable jurisdiction does not have a noise ordinance or policy restricting the time-of-day when noise-generating activity can occur noise-generating vegetation treatment activity will be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and federal holidays. If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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 and all treatment types, including treatment maintenance.
- 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 and all treatment types, including treatment maintenance.
- SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: 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 the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- 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 and all treatment types, including treatment maintenance.
- SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

EC-13: 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, the project proponent to 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 and treatment types, including treatment maintenance.

EC-14: TRANSPORTATION STANDARD PROJECT REQUIREMENTS

- SPR TRAN-1 Implement Traffic Control During Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) 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 along affected roadway facilities, 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 along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

  Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. 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, if required. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

The project proponent will engage with the agency(ies) with jurisdiction over roadways that could be affected by treatment activities prior to initiating implementation of the project. The project proponent will provide an overview of the proposed treatment types and activities that would occur in close proximity to public roads with the agency(ies) to determine the level of traffic control required for the project. A TMP may not be required for the project and in this case, the project proponent would proceed with the proposed vegetation treatment activities with no additional engagement with the agency(ies) with jurisdiction over roadways in the project area.

EC-15: PUBLIC SERVICES AND UTILITIES STANDARD PROJECT REQUIREMENTS

- SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. The Solid Organic Waste Disposition Plan will include the amount (e.g., tons) of solid organic waste to be managed onsite (i.e., scattering of wood materials, generating unburned piles, and pile burning) and transported offsite for processing (i.e., biomass power plant, wood product processing facility, composting). If the

project proponent intends to transport solid organic waste offsite, the Solid Organic Waste Disposition Plan will clearly identify the location and capacity of the intended processing facility, consistent with local and state regulations to demonstrate that adequate capacity exists to accept the treated materials. This SPR applies only to mechanical and manual treatment activities and all treatment types, including treatment maintenance.

EC-16: WILDFIRE

- NONE

EC-17: ADMINISTRATIVE STANDARD PROJECT REQUIREMENTS

- SPR AD-2 Delineate Protected Resources: 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.
- 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.
- SPR AD-4 Public Notifications for Prescribed Burning: At least ~~three~~one day~~s~~ prior to the commencement of prescribed burning operations, the project proponent will~~: 1)~~ post signs along the closest public roadway to 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 smoke concerns. At least three days prior to the commencement of prescribed burning operations, the project proponent will implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls. ~~; 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~~ During this outreach the project proponent will describe~~ing~~ the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.
- 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.
- 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.

- SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism.

  Information on proposed projects (PSA in progress):

  - GIS data that include project location (as a point);
  - project size (typically acres);
  - treatment types and activities; and
  - contact information for a representative of the project proponent.

  Information on approved projects (PSA complete):

  - A completed PSA Environmental Checklist;
  - A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist);
  - GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction)

  Information on completed projects:

  - GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction)
  - A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes
    - Size of treated area (typically acres);
    - Treatment types and activities;
    - Dates of work;
    - A list of the SPRs and mitigation measures that were implemented
    - Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b).

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

REFERENCES

Busse, M. D., K. R. Hubbert., and E. E. Y., Moghaddas. 2014 (February). Fuel reduction practices and their effects on soil quality. Gen. Tech. Rep. PSW-GTR-241. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 156 p.

California Invasive Plant Council. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers (3rd Edition). Cal-IPC Publication 2012-03. California Invasive Plant Council. Berkeley, CA.

de Groot, R. S., M. A. Wilson, and R. M. Boumans. 2002. A Typology for the Classification, Description and Valuation of Ecosystem Functions, Goods and Services. *Ecological Economics* 41:393-408.

Environmental Laboratory. 1987 (January). U.S. Army Corps of Engineers Wetlands Delineation Manual. (Technical Report Y-87-1.) U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

Levine, L. M., McEachern, A. K., and C. Cowan. 2008. "Rainfall Effects on Rare Annual Plants." *Journal of Ecology*. 96 (4): 794–806.

National Wildfire Coordinating Group. 2018 (February). *NWCG Smoke Management Guide for Prescribed Fire*. Available: https://www.nwcg.gov/publications/420-2. Accessed May 20, 2022.

NWCG. *See* National Wildfire Coordinating Group.

Sawyer, J. O., T. Keeler-Wolf, J. M. Evens. 2009. *A Manual of California Vegetation (Second Edition)*. California Native Plant Society and California Department of Fish and Game.

US Forest Service. 2006 (July). *Northern Goshawk Inventory and Monitoring Technical Guide*. United States Department of Agriculture Forest Service Gen. Tech. Report WO-71. Available: https://www.fs.usda.gov/research/treesearch/24986. Accessed December 1, 2022.

US Fish and Wildlife Service. 2012. *Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls*. Available: https://www.fws.gov/project/northern-spotted-owl-population-monitoring. Accessed April 27, 2022.

———. 2018. *Survey Protocols for the Rusty Patched Bumble Bee (*Bombus affinis*)*. Available: https://ecos.fws.gov/ipac/guideline/survey/population/10383/office/32410.pdf Accessed April 20, 2022.

———. 2021. *Designation of Critical Habitat for the Coastal Distinct Population Segment of the Pacific Marten; Proposed Rule*. Available: https://www.federalregister.gov/documents/2021/10/25/2021-22994/endangered-and-threatened-wildlife-and-plants-designation-of-critical-habitat-for-the-coastal. Accessed May 17, 2023.

USFWS. *See* US Fish and Wildlife Service.

Van Wagtendonk, J. W., N. G. Sugihara, S. L Stephens, A. E. Thode, K. E. Shaffer, J. A. Fites-Kaufman. 2018. *Fire in California's Ecosystems (Second Edition)*. University of California Press.

Working Group for *Phytophthoras* in Native Habitats. 2016 (September). Guidelines to Minimize Phytophthora Pathogens in Restoration Nurseries. Available: https://www.suddenoakdeath.org/wp-content/uploads/2016/04/Restoration.Nsy_.Guidelines.final_.092216.pdf. Accessed May 22, 2023.

Wyatt, David. Professor. Biology Department, Sacramento City College, Sacramento, CA. April 2, 2021—telephone call with Lara Rachowicz and Allison Fuller of Ascent Environmental regarding ringtail biology in California.

Attachment B

Biological Resources

VEGETATION AND HABITAT

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, special-status plants, special-status wildlife, sensitive natural communities, and sensitive habitats (e.g., chaparral, wetland and riparian habitats) with potential to occur in the project area. CAL FIRE Fire Resource and Assessment Program (FRAP) vegetation mapping was used to identify the habitat types within the project area and is the best available, current vegetation mapping data for the project area.

The project area is located mostly within the Klamath Mountains ecoregion; a small piece of the southwestern section of the project area is in the Northern California Coast Range ecoregion. Most of the project area is in Siskiyou County and the southwest section is located in Humboldt County. Siskiyou County land is 83 percent forested habitat (Siskiyou County 1973). The project area ranges in elevation from approximately 300 feet to 7,300 feet. Habitat types within the project area and total acreage of each type are presented in Table B-1.

Table B-1 Habitat Types in the Project Area[1]

Habitat Type	WUI Fuel Reduction (Acres)	Ecological Restoration (Acres)	Total (Acres)
Forest/Woodland			
Blue Oak-Foothill Pine	0.1	0.0	**0.1**
Coastal Oak Woodland	205.3	0.6	**205.9**
Douglas Fir	7,774.3	1,590.8	**9,365.2**
Jeffrey Pine	19.7	53.4	**73.1**
Klamath Mixed Conifer	1,040.7	1,306.7	**2,347.3**
Montane Hardwood	2,099.5	202.1	**2,301.6**
Montane Hardwood-Conifer	6,015.3	1,062.1	**7,077.4**
Ponderosa Pine	1,027.9	119.1	**1,147.0**
Red Fir	166.0	339.8	**505.8**
Subalpine Conifer	9.2	103.0	**112.2**
White Fir	223.1	1,058.5	**1,281.6**
Forest/Woodland Total	***18,581.1***	***5,836.1***	***24,417.2***
Shrub/Scrub			
Mixed Chaparral	461.0	36.4	**497.4**
Montane Chaparral	409.0	289.4	**698.4**
Shrub/Scrub Total	***870.0***	***325.8***	***1,195.8***
Herbaceous			
Annual Grassland	2,022.6	96.2	**2,118.9**
Perennial Grassland	107.0	57.9	**164.9**
Herbaceous Total	***2,129.6***	***154.1***	***2,283.8***
Wetland/Riparian			
Lacustrine	66.3	34.6	**100.9**
Montane Riparian	496.3	54.5	**550.8**
Riverine	562.6	10.3	**572.8**
Valley Foothill Riparian	37.4	0.0	**37.4**
Wet Meadow	42.5	6.6	**49.1**
Wetland/Riparian Total	***1,205.1***	***106.0***	***1,310.9***

Habitat Type	WUI Fuel Reduction (Acres)	Ecological Restoration (Acres)	Total (Acres)
Agricultural [2]			
Cropland	238.7	0.0	**238.7**
Deciduous Orchard	7.6	0.0	**7.6**
Irrigated Hayfield	80.6	0.0	**80.6**
Pasture	155.8	0.0	**155.8**
Agricultural Total	***482.6***	***0.0***	***482.7***
Developed/Disturbed/Barren[2]			
Barren	407.4	63.0	**470.4**
Urban	759.2	4.3	**1,073.9**
Developed/Disturbed/Barren Total	***1,477.0***	***67.3***	***1,544.3***
All Habitat Types Total	**24,745.3**	**6,489.1**	**31,234.5**

[1] Numbers may not add up to subtotals/totals precisely due to rounding.

[2] Most urban, barren, and agricultural habitats would not be targeted for treatment; however, due to the scale of the habitat mapping, some areas mapped as urban, barren, or agricultural may contain habitats that would be treated (e.g., forested areas close to urban or agricultural development).

Source: CAL FIRE FRAP vegetation data, compiled by Ascent Environmental in 2022.

SPECIAL-STATUS SPECIES

A list of special-status plant and wildlife species with potential to occur in the project area was compiled by completing a review of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the U.S. Geological Survey (USGS) quadrangles containing and surrounding the project area (72 quadrangles total; CNDDB 2022; CNPS 2022); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2022a); *Siskiyou County General Plan Conservation Element* (Siskiyou County 1973); *Humboldt County General Plan* (Humboldt County 2017); and Appendix BIO-3 (Table 5a, Table 5b, Table 10a, Table 10b, and Table 19) in the PEIR (Volume II) for special-status plants and wildlife that could occur in the Klamath Mountains and Northern California Coast Range ecoregions. A list of sensitive natural communities with potential to occur in the project area was compiled by completing a CNDDB search of the 72 USGS quadrangles containing and surrounding the project area (CNDDB 2022) and reviewing Table 3.6-11 (pages 3.6-47 – 3.6-49) and Table 3.6-18 (pages 3.6-70 – 3.6-71) in the PEIR (Volume II) for sensitive natural communities that could occur in the Klamath Mountains and Northern California Coast Range ecoregions in the habitat types mapped in the project area.

Ascent conducted reconnaissance surveys on February 24–25, 2023, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities) and to assess the suitability of habitat in the project area for special-status plant and wildlife species. Mapped habitat types were verified where possible, and incidental wildlife observations were recorded.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, and habitat present within the project area as assessed during reconnaissance surveys, a list of all species with potential to occur in the vicinity of the proposed project was assembled (Table B-2). It was determined that 106 of the special-status plant and 31 of the special-status wildlife taxa from the full list of species have potential to occur in the project area and four special-status plants are known to occur in the project area (Table B-2).

SPECIAL-STATUS PLANTS

In Table B-2, location references for special-status plants correspond to "Areas" identified in Figure 1 of the PSA/Addendum. Regarding distances between a treatment area and a plant occurrence, closer occurrences do not necessarily represent an increased likelihood for a plant to occur in a treatment area. Of the 106 special-status plant species that are known or have potential to occur in the project area, thirteen species – including Oregon fireweed (*Epilobium oreganum*), Pickering's ivesia (*Ivesia pickeringii*), and porcupine sedge (*Carex hystericina*)– are typically associated with wetlands (e.g., freshwater emergent wetlands, freshwater forested/shrub wetlands, springs, seeps, wet meadows) (Table B-1). Fifty-six special-status plant species –including giant fawn lily (*Erythronium oregonum*), Hooker's catchfly (*Silene hookeri*), and Siskiyou phacelia (*Phacelia leonis*)– are associated with upland habitats that are present in the project area. The remaining 37 special-status plant species –including Siskiyou paintbrush (*Castilleja elata*), Engelmann spruce (*Picea engelmannii*), and Siskiyou clover (*Trifolium siskiyouense*)– are facultative species, meaning they may be found in both wetland and upland habitats (Table B-1).

SPR BIO-7 would apply to all treatment activities, including maintenance treatments, and protocol-level surveys for special-status plants would be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a, or current version) prior to implementing prescribed burning, mechanical treatment, and manual treatment in any habitat potentially suitable for special-status plants. If special-status plant species are found during implementation of SPR BIO-7, Mitigation Measure BIO-1a and/or Mitigation Measure BIO-1b would be required, and no-disturbance buffers would be established around the area occupied by special-status plants. For special-status plants that are not listed under CESA or ESA, treatments may be conducted within occupied habitat if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.

Thirty-one of the 106 special-status plant species that may occur within the project area are herbaceous annual species or geophytes, as indicated in Table B-2. Impacts on these species would be avoided by treatment activities that do not kill or remove vegetation or disturb the soil (i.e., manual treatment, prescribed burning) only during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et. al 2008). Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted without prior implementation of SPR BIO-7. If treatments that do not kill or remove vegetation or disturb the soil (e.g., manual treatments, prescribed burning) cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented. Seventy-five of the 106 special-status plant species that have potential to occur within the project area are perennial species, which could not be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify them prior to implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required (pursuant to SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, would be implemented to avoid loss of and resultant significant impacts on, identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed burning, mechanical treatment, and manual treatment would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects would need to be made in consultation with the California Department of Fish and Wildlife (CDFW) and/or USFWS, depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants,

under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts would be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants would be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants would be maintained because treatment activities and maintenance treatments would be designed to ensure that treatments, including follow-up maintenance, maintain habitat function for the special-status plant species present.

SPECIAL-STATUS WILDLIFE

Mitigation Measures BIO-2a and BIO-2b require that treatment activities be designed to maintain habitat function for special-status wildlife species. Habitat function for special-status wildlife species associated with forest or woodland habitats would be maintained because treatment activities and maintenance treatments would not result in removal of trees greater than 12 inches dbh (which would be the most likely features used by denning [e.g., fisher, Humboldt marten, ringtail], nesting [e.g., bald eagle, golden eagle, northern goshawk, northern spotted owl, olive-sided flycatcher], or roosting [e.g., pallid bat, Townsend's big-eared bat] wildlife), conifer trees greater than 12 inches dbh and up to 24 inches dbh that would be removed for instream fish habitat restoration projects would not be removed from habitats suitable for wildlife species associated with late seral forest habitats or species that may nest or den in large conifers as determined by a qualified RPF or biologist, and would retain a sufficient number of small-diameter trees to maintain age-class diversity and facilitate tree recruitment and forest regeneration over time. Further, average canopy cover in forest habitats would be maintained at 40–60 percent (and a minimum of 60 percent for forest habitats determined to be occupied by northern spotted owl), and retention standards for down logs and snags would be implemented, which would maintain habitat function for wildlife species associated with late seral forest habitats (e.g., northern spotted owl, northern goshawk, fisher, gray wolf, Humboldt marten) and species that use down logs for nesting or cover (e.g., Franklin's bumble bee, Suckley's cuckoo bumble bee, western bumble bee, Scott Bar salamander, Siskiyou Mountains salamander).

Treatments would not result in type conversion (i.e., forest to shrub, shrub to herbaceous) through implementation of tree retention parameters and SPRs, and the entire project area would not be treated at once, so landscape-level effects on habitat function would not be expected to occur, and thus habitat function would be maintained for special-status wildlife species with large home ranges (e.g., monarch, gray wolf, Roosevelt elk). Grassland cover types in the project area would be maintained and additional open woodland habitat would likely be restored through thinning and removal of ladder fuels, which would maintain habitat function for American badger. Further, "retention patches" within large treatment areas would be established in some areas to maintain 0.25- to 1-acre patches of existing forest canopy. Where woodrat (*Neotoma* spp.) nests are present, retention patches would be established and all tanoak sprouts less than 4 inches dbh would be cut to encourage resprouting and to create future woodrat habitat where appropriate. Because woodrat is an important prey item for several special-status wildlife species (e.g., northern spotted owl, fisher, Humboldt marten), woodrat habitat retention is expected to benefit or maintain foraging habitat for these predators.

Treatments would not occur within aquatic habitat, and pursuant to SPR HYD-4, treatments within stream WLPZs adjacent to the treatment area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover), which would maintain habitat function for amphibian and reptile species associated with aquatic or riparian habitat (e.g., Cascades frog, foothill yellow-legged frog, Pacific tailed frog, southern long-toed salamander, western pond turtle) and species that may use riparian corridors for movement (e.g., gray wolf, ringtail). Additionally, because treatments would not target rocky habitats or talus slopes, habitat function for Scott Bar salamander and Siskiyou Mountains salamander would not be impaired by project implementation.

Table B-2 Special-Status Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Plants					
Pacific silver fir *Abies amabilis*	—	—	2B.3	Upper montane coniferous forest. 5,570–7,200 feet in elevation. Perennial.	***Known to occur***. *Abies amabilis* has a documented occurrence in the project area in Somes Bar Area (CNDDB 2022). Coniferous forest habitat potentially suitable for this species is present in the project area. *Abies amabilis* has over 20 documented occurrences in proximity to the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Abies amabilis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Subalpine fir *Abies lasiocarpa* var. *lasiocarpa*	—	—	2B.3	Upper montane coniferous forest, subalpine coniferous forest, meadows and seeps. Known only from Siskiyou County in California. 4,000–7,200 feet in elevation. Perennial.	*May occur*. Coniferous forest and meadow and seep habitat potentially suitable for this species is present in the project area. *Abies lasiocarpa* var. *lasiocarpa* has approximately 20 documented occurrences in proximity to the project area in Somes Bar and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 1 mile north of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Abies lasiocarpa* var. *lasiocarpa*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Cut-leaf anemone *Anemone multifida* var. *multifida*	—	—	2B.2	Subalpine coniferous forest, upper montane coniferous forest, lower montane coniferous forest. Rocky, gravelly. 5,580–9,020 feet in elevation. Blooms June–July. Perennial.	*May occur*. Coniferous forest habitat with gravelly soils potentially suitable for this species is present in the project area. *Anemone multifida* var. *multifida* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, and Somes Bar area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 2 miles northwest of the project area and a documented historical occurrence 1 mile northeast of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Anemone multifida* var. *multifida*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Scabrid alpine tarplant *Anisocarpus scabridus*	—	—	1B.3	Upper montane coniferous forest. Open ridges or slopes on metamorphics. 5,410–7,550 feet in elevation. Blooms July–August. Perennial.	*May occur*. Coniferous forest habitat on ridges and slopes with metamorphic soils potentially suitable for this species is present in the project area. *Anisocarpus scabridus* has documented occurrences in proximity to the project area in the Salmon River Area (Calflora 2022; CNNDB 2022). This includes a documented occurrence approximately 11 miles southeast of the project area in the Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Anisocarpus scabridus*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Sawyer's pussy-toes *Antennaria sawyeri*	—	—	1B.2	Open, subalpine, serpentine slopes, ridges. Usually north-facing slopes with late spring snowpack, sometimes gravelly, rocky. *Antennaria sawyeri* has been documented on ultramafic soils. 6,810–7,970 feet in elevation. Blooms June–August. Perennial.	*May occur*. Open slope and ridge habitat with serpentine substrate potentially suitable for this species is present in the project area. *Antennaria sawyeri* has documented occurrences in proximity to the project area in the Salmon River Area (CNNDB 2022). This includes a documented occurrence approximately 6 miles south of the project area in the Salmon River Area on rocky ultramafic soils (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Antennaria sawyeri*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Waldo rockcress *Arabis aculeolata*	—	—	2B.2	Broadleafed upland forest, lower montane coniferous forest, upper montane coniferous forest. Serpentine slopes and ridges. 1,340–5,910 feet in elevation. Blooms April–June. Perennial.	*May occur*. Slope and ridge habitat with serpentine substrate potentially suitable for this species is present in the project area. *Arabis aculeolata* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, and Somes Bar Areas (CCH2 2022; CNDDB 2022). This includes a documented occurrence 6 miles west of the project area in Happy Camp Area and a documented occurrence directly adjacent to the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Arabis aculeolata*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Mcdonald's rockcress *Arabis mcdonaldiana*	FE	SE	1B.1	Lower montane coniferous forest, upper montane coniferous forest. Rocky outcrops, ridges, slopes, and flats on serpentine. 440–5,910 feet in elevation. Blooms May–July. Perennial.	*May occur*. Coniferous forest with serpentine substrate habitat potentially suitable for this species is present in the project area. *Arabis mcdonaldiana* has documented occurrences, in proximity to the Happy Camp Area (CNDDB 2022). This includes a documented occurrence approximately 6 miles southwest of the project area in Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Arabis mcdonaldiana*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Trinity Mountains rockcress *Arabis rigidissima* var. *rigidissima*	—	—	1B.3	Upper montane coniferous forest. Open, rocky places. 4,150–6,810 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Arabis rigidissima* var. *rigidissima* has documented occurrences in proximity to the project area in Somes Bar, Orleans, and Salmon River Areas (CCH2 2022; CNDDB 2022). This includes a documented historical occurrence approximately 1 mile northeast of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Arabis rigidissima* var. *rigidissima*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Klamath manzanita *Arctostaphylos klamathensis*	—	—	1B.2	Chaparral (montane), lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest. Rocky outcrops. Sometimes on gabbro or serpentine. 4,690–7,380 feet in elevation. Blooms May–August. Perennial.	*May occur*. Rocky outcrops in chaparral and coniferous forest habitat potentially suitable for this species are present in the project area. *Arctostaphylos klamathensis* has documented occurrences in the Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 6 miles east of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Arctostaphylos klamathensis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Marbled wild-ginger *Asarum marmoratum*	—	—	2B.3	Understory of coniferous forests. 1,590–5,350 feet in elevation. Blooms April–August. Geophyte.	*May occur*. Conifer forest habitat potentially suitable for this species is present in the project area. *Asarum marmoratum* has documented occurrences in proximity to the Happy Camp Area (CNDDB 2022). This includes a documented historical occurrence approximately 4 miles northwest of the project area in the Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Asarum marmoratum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Bald Mountain milk-vetch *Astragalus umbraticus*	—	—	2B.2	Cismontane woodland, lower montane coniferous forest. Dry open oak and pine woodlands; sometimes on roadsides. 690–4,000 feet in elevation. Blooms May–August. Perennial.	*May occur*. Woodland and coniferous forest habitat potentially suitable for this species is present in the project area. This species has documented occurrences in proximity to the project area in Somes Bar and Orleans Areas (CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles northwest of the project area in the Somes Bar area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Astragalus umbraticus*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Woolly balsamroot *Balsamorhiza lanata*	—	—	1B.2	Cismontane woodland. Open woodland, grassy slopes. 2,620–6,220 feet in elevation. Blooms April–June. Perennial.	*May occur*. Woodland habitat potentially suitable for this species is present in the project area. This species has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented historical occurrence approximately 8 miles northeast of the project area in the Somes Bar area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Astragalus umbraticus*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Silky balsamroot *Balsamorhiza sericea*	—	—	1B.3	Lower montane coniferous forest. Collections from Douglas fir forest and Jeffrey pine forest. Serpentine. 2,790–6,990 feet in elevation. Blooms April–May. Perennial.	*May occur*. Conifer habitat with serpentine substrate potentially suitable for this species is present in the project area. *Balsamorhiza sericea* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). Additionally, this species has documented occurrences in Oregon northwest of the Happy Camp Area (Calflora 2022; CCH2 2022). Treatments could result in direct or indirect adverse effects on *Balsamorhiza sericea*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Koehler's stipitate rockcress *Boechera koehleri*	—	—	1B.3	Chaparral, lower montane coniferous forest. Rocky, serpentine substrate. 590–5,970 feet in elevation. Blooms April–July. Perennial.	*May occur*. Chaparral and conifer forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Boechera koehleri* has documented occurrences in proximity to the project area in Seiad and Horse Creek and Happy Camp Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3 miles northwest of the project area in the Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Boechera koehleri*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Rolle's rockcress *Boechera rollei*	—	—	1B.1	Upper montane coniferous forest. Among rocks on sparsely vegetated, forested slopes. 5,250–5,905 feet in elevation. Blooms August. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Boechera rollei* has a few documented occurrences in proximity to the project area in Seiad and Horse Creek Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3 northwest of the project area in Seiad and Horse Creek Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Boechera rollei*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Serpentine rockcress *Boechera serpenticola*	—	—	1B.2	Lower montane coniferous forest, upper montane coniferous forest. Serpentine ridges and talus. 3,690–6,860 feet in elevation. Blooms March–June. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. Treatments could result in direct or indirect adverse effects on *Boechera serpenticola*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Scalloped moonwort *Botrychium crenulatum*	—	—	2B.2	Moist meadows, freshwater marsh, and near creeks. 3,890–10,200 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Moist meadow, wetland, and creekbank habitat potentially suitable for this species is present in the project area. *Botrychium crenulatum* has a documented occurrence approximately 6 miles southeast of the project area in Salmon River Area (CNDDB 2018). Treatments could result in direct or indirect adverse effects on *Botrychium crenulatum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Mingan moonwort *Botrychium minganense*	—	—	2B.2	Lower montane coniferous forest, upper montane coniferous forest, bogs and fens, meadows and seeps. Meadows, open forest along streams or around seeps. 3,900–10,810 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Stream and wetland habitat potentially suitable for this species is present in the project area. *Botrychium minganense* has documented occurrences in proximity to the Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Botrychium minganense*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Northwestern moonwort *Botrychium pinnatum*	—	—	2B.3	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest. Creekbanks. 5,400–6,710 feet in elevation. Blooms July–October. Geophyte.	*May occur*. Creekbank habitat potentially suitable for this species is present in the project area. *Botrychium pinnatum* has a historical documented occurrence approximately 6 miles northeast of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Botrychium pinnatum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Rattlesnake fern *Botrypus virginianus*	—	—	2B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, riparian forest. Streambanks. 2,340–4,610 feet in elevation. Blooms June–September. Perennial.	*May occur*. Streambank habitat potentially suitable for this species is present in the project area. *Botrypus virginianus* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles southeast of the project area in the Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Botrypus virginianus*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Green shield-moss *Buxbaumia viridis*	—	—	2B.2	Lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest. Well-rotted logs and in peaty soil and humus. 980–7,300 feet in elevation. Perennial.	*May occur*. Conifer habitat with well-rotted logs potentially suitable for this species is present in the project area. Treatments could result in direct or indirect adverse effects on *Buxbaumia viridis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Wilkin's harebell *Campanula wilkinsiana*	—	—	1B.2	Meadows and seeps, upper montane coniferous forest, subalpine coniferous forest. Often on streambanks in meadows. 4,165–8,530 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Coniferous forest with streambank habitat potentially suitable for this species is present in the project area. *Campanula wilkinsiana* has documented occurrences in proximity to the project area in Somes Bar and Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022). This species has a documented historical occurrence adjacent to the project area in the Salmon River Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Campanula wilkinsiana*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Oregon sedge *Carex halliana*	—	—	2B.3	Meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Dry, forest edges, often on pumice. 4,790–6,830 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Coniferous forest and meadow habitat potentially suitable for this species is present in the project area. *Carex halliana* has documented occurrences in proximity to the project area in Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles east of the project area in Somes Bar Area and 1 mile east of the project area in the Orleans Area (Calflora 2022; CCH2 2022). Treatments could result in direct or indirect adverse effects on *Carex halliana*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Porcupine sedge *Carex hystericina*	—	—	2B.1	Wet places, such as stream edges. 1,980–3,150 feet in elevation. Blooms May–June. Geophyte.	*May occur*. Wetland and streamside habitat potentially suitable for this species is present in the project area. This species has a documented occurrence adjacent to the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Carex hystericina*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Klamath sedge *Carex klamathensis*	—	—	1B.2	Meadows and seeps, chaparral, cismontane woodland. Moist to wet serpentine soils. 2,980–3,740 feet in elevation. Geophyte.	*May occur*. Mesic habitat with serpentine substrate potentially suitable for this species is present in the project area. *Carex klamathensis* has a documented occurrence 9 miles south of project area in Salmon River Area (CCH2 2022). This species has multiple occurrences across the Oregon border northwest of Happy Camp Area (Calflora 2022; CCH2 2022). Treatments could result in direct or indirect adverse effects on *Carex klamathensis*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Nard sedge *Carex nardina*	—	—	2B.2	Exposed arctic and alpine tundra, and on calcareous cliffs, rocky slopes, ridges, and summits (NatureServe 2022). 165–10,830 feet in elevation. (NatureServe 2022). Blooms August–September. Perennial.	*May occur*. Rocky slopes, ridges, summits, and carbonate substrate potentially suitable for this species are present in the project area. *Carex nardina* has two documented occurrences directly adjacent to the project area along the Pacific Crest Trail in Somes Bar Area (CNDDB 2022). This species was recently discovered in California by D. York in 2011 (CNPS 2022). Treatments could result in direct or indirect adverse effects on *Carex nardina*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Northern meadow sedge *Carex praticola*	—	—	2B.2	Meadows and seeps. Moist to wet meadows. 50–10,500 feet in elevation. Blooms May–July. Perennial.	*May occur*. Moist to wet meadow habitat potentially suitable for this species is present in the project area. This species has a documented occurrence approximately 3 miles west of the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Carex praticola*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Serpentine sedge *Carex serpenticola*	—	—	2B.3	Meadows and seeps. Mesic, serpentine sites. Dry to moist savanna, riparian, spring margins. 60–5,610 feet in elevation. Blooms March–May. Geophyte.	*May occur*. Dry to mesic habitat with serpentine substrate potentially suitable for this species is present in the project area. *Carex serpenticola* has documented occurrences northwest of the project area in Happy Camp Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles northwest of the project area in Happy Camp Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Carex serpenticola*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Siskiyou paintbrush *Castilleja elata*	—	—	2B.2	Lower montane coniferous forest, bogs and fens. Serpentine endemic (i.e., 85–94 percent of occurrences are found on mesic serpentine soils); associated with bogs, seeps, and fens. 190–6,810 feet in elevation. Blooms May–August. Perennial.	*May occur*. Wetland and streamside habitat with serpentine substrates potentially suitable for this species is present in the project area. *Castilleja elata* has documented occurrences in proximity to the project area in Happy Camp and Somes Bar Areas (Calflora 2022; CNDDB 2022). This includes a documented historical occurrence approximately 5 miles west of the project area Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Castilleja elata*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Shasta chaenactis *Chaenactis suffrutescens*	—	—	1B.3	Lower montane coniferous forest, upper montane coniferous forest. Unstable, sandy to rocky, serpentine soils, scree, drainages. 2,460–9,190 feet in elevation. Blooms May–September. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Chaenactis suffrutescens* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 2 miles west of the project area Salmon River Area (CCCH2 2022). Additionally, this species has two documented occurrences approximately 9 miles northeast of the project area in Seiad and Horse Creek Area located just across the Oregon border (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Chaenactis suffrutescens*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Bunchberry *Cornus canadensis* Synonum: *Cornus unalaschkensis*	—	—	2B.2	North coast coniferous forest, bogs and fens, meadows and seeps. 290–6,300 feet in elevation. Blooms May–July. Perennial.	*May occur*. Conifer and wetland habitat potentially suitable for this species is present in the project area. *Cornus canadensis* has documented occurrences in proximity to the project area in Happy Camp, Somes Bar, and Salmon River Areas (CNDDB 2022). This includes a documented occurrence approximately 3 miles north of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Cornus canadensis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Jepson's dodder *Cuscuta jepsonii*	—	—	1B.2	North coast coniferous forest. Primary host species are *Ceanothus diversifolius* and *Ceanothus prostratus*. 390–9,010 feet in elevation. Blooms July–September. Annual.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. Additionally, primary host species *Ceanothus diversifolius* is present in the project area. *Cuscuta jepsonii* has a documented occurrence approximately 10 miles west of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Cuscuta jepsonii*. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Mt. Eddy draba *Draba carnosula*	—	—	1B.3	Subalpine coniferous forest, upper montane coniferous forest. Rocky; serpentine. 6,350–9,850 feet in elevation. Blooms July–August. Perennial.	*May occur*. Rocky coniferous habitat serpentine substrate potentially suitable for this species is present in the project area. *Draba carnosula* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles southwest of the project area in Happy Camp Area and a documented historical occurrence 1 mile west of the project area in the Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Draba carnosula*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
English sundew *Drosera anglica*	—	—	2B.3	Bogs and fens, meadows and seeps (mesic). 4,260–6,560 feet in elevation. Blooms June–September. Perennial.	*May occur*. Wet meadow and other wetland habitat potentially suitable for this species is present in the project area. *Drosera anglica* has multiple documented occurrences from the same location approximately 7 miles northeast of the project area in Somes Bar Area (CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Drosera anglica*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Yellow willowherb *Epilobium luteum*	—	—	2B.3	Lower montane coniferous forest, meadows and seeps. Along streams, montane meadows, and in seeps. 5,180–7,220 feet in elevation. Blooms July–September. Perennial.	*May occur*. Stream and wetland habitat potentially suitable for this species are present in the project area. *Epilobium luteum* has documented occurrences in proximity to the project area in Happy Camp Area (CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles northwest of the project area in Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Epilobium luteum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Oregon fireweed *Epilobium oreganum*	—	—	1B.2	Bogs and fens, meadows and seeps, lower montane coniferous forest, upper montane coniferous forest. In and near springs and bogs; at least sometimes on serpentine. 1,640–7,350 feet in elevation. Blooms June–September. Perennial.	*May occur*. Stream and wetland habitat with serpentine and non-serpentine substrates potentially suitable for this species are present in the project area. *Epilobium oreganum* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles northeast of the project area in Somes Bar Area and a documented historical occurrence adjacent to the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Epilobium oreganum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Siskiyou fireweed *Epilobium siskiyouense*	—	—	1B.3	Alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest. On slopes in gravelly, serpentine soils. 5,490–8,010 feet in elevation. Blooms July–September. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Epilobium siskiyouense* has over twenty documented occurrences in proximity to the project area in Happy Camp, Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles north of the project area in Seiad and Horse Creek Area and a documented historical occurrence approximately 1 mile north of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Epilobium siskiyouense*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Waldo daisy *Erigeron bloomeri* var. *nudatus*	—	—	2B.3	Lower montane coniferous forest, upper montane coniferous forest. In open areas on dry rocky outcrops on serpentine. 2,390–5,710 feet in elevation. Blooms June–July. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Erigeron bloomeri* var. *nudatus* has documented occurrences in proximity to the project area in Happy Camp and Somes Bar Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence 1 mile northwest of the project area in Happy Camp Area 1979 (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Erigeron bloomeri* var. *nudatus*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Jaynes Canyon buckwheat *Eriogonum diclinum*	—	—	2B.3	Upper montane coniferous forest. Often on serpentine. 5,690–8,010 feet in elevation. Blooms June–September. Perennial.	*May occur*. Coniferous forest habitat with serpentine and non-serpentine substrates potentially suitable for this species is present in the project area. *Eriogonum diclinum* has over fifteen documented occurrences in proximity to the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented historical occurrence approximately 1 mile west of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Eriogonum diclinum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Klamath Mountain buckwheat *Eriogonum hirtellum*	—	—	1B.3	Chaparral, lower montane coniferous forest, upper montane coniferous forest. Dry serpentine rocky outcrops and ridges. 1,980–6,200 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Conifer and chaparral habitat with serpentine substrate potentially suitable for this species is present in the project area. *Eriogonum hirtellum* has documented occurrences in proximity to Seiad and Horse Creek and Happy Camp Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 2 miles southeast of the project area in Happy Camp Area and a documented occurrence 1 mile northeast of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Eriogonum hirtellum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Warner Mountains buckwheat *Eriogonum umbellatum* var. *glaberrimum*	—	—	1B.3	Lower montane coniferous forest, upper montane coniferous forest, Great Basin scrub. Sandy or gravelly sites. 4,980–7,370 feet in elevation. Blooms June–September. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Eriogonum umbellatum* var. *glaberrimum* has a documented occurrence approximately 8 miles northeast of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Eriogonum umbellatum* var. *glaberrimum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Scott Valley buckwheat *Eriogonum umbellatum* var. *lautum*	—	—	1B.1	Cismontane woodland, lower montane coniferous forest. Sandy to gravelly flats. 2,880–3,250 feet in elevation. Blooms July–September. Perennial.	*Not expected to occur*. Project area is not within geographical range of this species. *Eriogonum umbellatum* var. *lautum* is only known from Scott Valley (CNPS 2022; NatureServe 2022). No impact is anticipated.
Blushing wild buckwheat *Eriogonum ursinum* var. *erubescens*	—	—	1B.3	Lower montane coniferous forest, montane chaparral. Gravel. 2,460–6,240 feet in elevation. Blooms June–September. Perennial.	*May occur*. Coniferous forest and montane chaparral habitat potentially suitable for this species is present in the project area. *Eriogonum ursinum* var. *erubescens* has documented occurrences in proximity to the project area in Seiad and Horse Creek and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 9 miles southeast of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Eriogonum ursinum* var. *erubescens*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Henderson's fawn lily *Erythronium hendersonii*	—	—	2B.3	Lower montane coniferous forest. Dry woodland, openings. 200–2,950 feet in elevation. Blooms April–July. Geophyte.	*May occur*. Conifer and woodland habitat potentially suitable for this species is present in the project area. *Erythronium hendersonii* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes documented occurrences less than one mile northwest and directly adjacent to the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Erythronium hendersonii*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Howell's fawn lily *Erythronium howellii*	—	—	1B.3	Lower montane coniferous forest, north coast coniferous forest. Dry woodland, shrubby slopes. Sometimes on serpentine. 390–3,770 feet in elevation. Blooms April–May. Geophyte.	*May occur*. Conifer and woodland habitat with serpentine and non-serpentine substrates potentially suitable for this species are present in the project area. *Erythronium citrinum* var. *citrinum* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, Somes Bar, and Orleans Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes documented occurrences directly adjacent to the project area in Orleans Area and less than 1 mile west of the project area in Somes Bar Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Erythronium citrinum* var. *citrinum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Giant fawn lily *Erythronium oregonum*	—	—	2B.2	Cismontane woodland, meadows and seeps. Openings. Sometimes on serpentine; rocky sites. 950–4,710 feet in elevation. Blooms March–June. Perennial.	*May occur*. Woodland and meadow habitat with serpentine and non-serpentine substrates potentially suitable for this species is present in the project area. *Erythronium oregonum* has documented occurrences in proximity to the project area in Somes Bar and Salmon River Areas (CCH2 2022; CNDDB 2022). *Erythronium oregonum* has documented occurrences in Oregon (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Erythronium oregonum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Coast fawn lily *Erythronium revolutum*	—	—	2B.2	Bogs and fens, broadleafed upland forest, north coast coniferous forest. Mesic sites; streambanks. 200–4,610 feet in elevation. Blooms March–July. Geophyte.	*May occur*. Streambank and wetland habitat potentially suitable for this species is present in the project area. This species has a documented occurrence approximately 1 mile southwest of the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Erythronium revolutum*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Brook pocket moss *Fissidens aphelotaxifolius*	—	—	2B.2	Lower montane coniferous forest, upper montane coniferous forest. Moss growing on rocks in stream channels and waterfalls; also in splash zones. 6,560–7,220 feet in elevation. Perennial.	*May occur*. Streambank and other mesic habitat potentially suitable for this species is present in the project area. *Fissidens aphelotaxifolius* has a documented occurrence approximately 2 miles west of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Fissidens aphelotaxifolius*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Modoc green-gentian *Frasera albicaulis* var. *modocensis*	—	—	2B.3	Great Basin scrub, upper montane coniferous forest. Openings. 2,950–5,740 feet in elevation. Blooms May–July. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Frasera albicaulis* var. *modocensis* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022). Additionally, this species has a documented historical occurrence approximately 14 miles northeast of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Frasera albicaulis* var. *modocensis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Gentner's fritillary *Fritillaria gentneri*	FE	—	1B.1	Cismontane woodland, chaparral, lower montane coniferous forest. Open sites at edge of woodland or chaparral; sometimes on serpentine. 3,300–3,680 feet in elevation. Blooms April–May. Geophyte.	*Not expected to occur*. Project area is not within geographical range of this species. *Fritillaria gentneri* is only known from two occurrences in California in the Camp Creek–Scotch Creek Watershed east of the project area and I-5 (CNPS 2022; CNDDB 2022). No impact is anticipated.
Scott Mountain bedstraw *Galium serpenticum* ssp. *scotticum*	—	—	1B.2	Lower montane coniferous forest. Generally, on north-facing slopes on serpentine in mixed conifer forest. 3,280–6,810 feet in elevation. Blooms May–August. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Galium serpenticum* ssp. *scotticum* has documented occurrences in proximity of the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles northeast of the project area and a documented historical occurrence approximately 2 miles southeast of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Galium serpenticum* ssp. *scotticum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Klamath gentian *Gentiana plurisetosa*	—	—	1B.3	Meadows and seeps, upper montane coniferous forest, lower montane coniferous forest. Mesic sites. 3,930–6,240 feet in elevation. Blooms July–September. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Gentiana plurisetosa* has documented occurrences in proximity of the project area in Orleans and Somes Bar Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence directly adjacent to the east of the project area in Somes Bare Area (CNDDB 2022). *Gentiana plurisetosa* also has documented occurrences in Oregon (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Gentiana plurisetosa*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Pacific gilia *Gilia capitata* ssp. *pacifica*	—	—	1B.2	Coastal bluff scrub, chaparral (openings), coastal prairie, valley and foothill grassland. Steep slopes, ravines, open flats, or coastal bluffs, grassland, dunes. 10–4,410 feet in elevation. Blooms April–August. Annual.	*May occur*. Grassland and openings chaparral habitat potentially suitable for this species is present in the project area. *Gilia capitata* ssp. *pacifica* has a documented occurrence directly adjacent to the north of the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Gilia capitata* ssp. *pacifica*. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Buttercup-leaf suksdorfia *Hemieva ranunculifolia*	—	—	2B.2	Upper montane coniferous forest, meadows and seeps. Mesic sites; rocky. 4,920–8,200 feet in elevation. Blooms June–August. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Hemieva ranunculifolia* has documented occurrences in proximity of the project area in the Seiad and Horse Creek, Happy Camp, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented historical occurrence mapped in proximity of Josephine Lake Basin directly adjacent to the project area in Salmon River Area (CNDDB 2022). *Hemieva ranunculifolia* also has documented occurrences in Oregon (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Gentiana plurisetosa*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Henderson's horkelia *Horkelia hendersonii*	—	—	1B.1	Upper montane coniferous forest. Granitic peaks and talus slopes at high elevations. 6,560–7,550 feet in elevation. Blooms June–August. Perennial.	*Not expected to occur*. Project area does not contain coniferous forest habitat with granitic substrate potentially suitable for this species within geographical range of this species. *Horkelia hendersonii* is only known from one occurrence in California approximately 4 miles east of the project area in Seiad and Horse Creek Area (CNPS 2022; NatureServe 2022). Although, the nearest coniferous forest habitat with granitic substrate potentially suitable for this species in the project area is in southern Somes Bar Area. The remaining documented occurrences of this species are in Oregon where it has been classified as endangered (CNPS 2022; NatureServe 2022). No impact is anticipated.
California globe mallow *Iliamna latibracteata*	—	—	1B.2	North Coast coniferous forest (mesic), chaparral, lower montane coniferous forest, riparian scrub (streambanks). 200–6,560 feet in elevation. Blooms June–August. Perennial.	*May occur*. Conifer, chaparral, and riparian habitat potentially suitable for this species is present in the project area. Treatments could result in direct or indirect adverse effects on *Iliamna latibracteata*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Pickering's ivesia *Ivesia pickeringii*	—	—	1B.2	Lower montane coniferous forest, meadows and seeps. Wet, rocky meadows, generally on serpentine clay. 2,790–5,000 feet in elevation. Blooms June–August. Perennial.	*May occur*. Mesic meadow habitat potentially suitable for this species is present in the project area. *Ivesia pickeringii* has documented occurrence in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles northeast of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Ivesia pickeringii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Dudley's rush *Juncus dudleyi*	—	—	2B.3	Lower montane coniferous forest. Wet areas in conifer forest. 1,490–6,560 feet in elevation. Blooms July–August. Perennial.	*May occur*. Mesic conifer habitat potentially suitable for this species is present in the project area. *Juncus dudleyi* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented historical occurrence mapped at the confluence of Walker Creek and the Klamath River directly adjacent to the project area in Seiad and Horse Creek Area (CNDDB 2022). This occurrence was potentially observed in the project area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Juncus dudleyi*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Regel's rush *Juncus regelii*	—	—	2B.3	Upper montane coniferous forest, meadows and seeps. Mesic sites. 2,490–6,235 feet in elevation. Blooms August. Geophyte.	*May occur*. Mesic conifer and meadow habitat potentially suitable for this species is present in the project area. *Juncus regelii* has documented occurrences in proximity to the project area in Happy Camp and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 6 miles southwest of the project area in Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Juncus regelii*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Small groundcone *Kopsiopsis hookeri*	—	—	2B.3	North coast coniferous forest. Open woods, shrubby places, generally on *Gaultheria shallon*. 390–4,710 feet in elevation. Blooms April–August. Geophyte.	*May occur*. Conifer habitat potentially suitable for this species is present in the project area. Additionally, the project area is located within part of the host plant *Gaultheria shallon*'s range (CCH2 2022). *Kopsiopsis hookeri* has a documented historical occurrence approximately 2 miles west of the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Kopsiopsis hookeri*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Heckner's lewisia *Lewisia cotyledon* var. *heckneri*	—	—	1B.2	Lower montane coniferous forest. Rocky places. 740–6,890 feet in elevation. Blooms May–July. Perennial.	*May occur*. Rocky coniferous forest habitat potentially suitable for this species is present in the project area. *Lewisia cotyledon* var. *heckneri* has documented occurrences in proximity to project area in Seiad and Horse Creek, Happy Camp, Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Lewisia cotyledon* var. *heckneri*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Henderson's lomatium *Lomatium hendersonii*	—	—	2B.3	Pinyon-juniper woodland, Great Basin scrub, lower montane coniferous forest. Gravelly or rocky soil. 4,590–8,010 feet in elevation. Blooms March–June. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Lomatium hendersonii* has a documented occurrence approximately 2 miles north of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Lomatium hendersonii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Coast Range lomatium *Lomatium martindalei*	—	—	2B.3	Conifer forest, rocks, meadows, talus, pumice, coastal bluffs. 790–9,840 feet in elevation. Blooms May–June. Perennial.	*May occur*. Coniferous forest and meadow habitat potentially suitable for this species is present in the project area. *Lomatium martindalei* has four documented occurrences approximately 2 miles west of the project area in Somes Bar Area (CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Lomatium martindalei*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Long seta hump moss *Meesia longiseta*	—	—	2B.3	Bogs and fens, meadows and seeps, upper montane coniferous forest. On moist soil along streams and in meadows; often carbonate. 5,740–9,990 feet in elevation. Perennial.	*May occur*. Stream and meadow habitat potentially suitable for this species is present in the project area. *Meesia longiseta* has a documented occurrence approximately 8 miles northeast of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Meesia longiseta*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Oregon bluebells *Mertensia bella*	—	—	2B.2	Meadows and seeps, upper montane coniferous forest. Mesic. Wet meadows, springs, under taller herbs, often in disturbed areas and/or openings. 4,660–6,560 feet in elevation. Blooms May–July. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Mertensia bella* has documented occurrences in proximity to the project area in Seiad and Horse Creek and Happy Camp Areas (CCH2 2022; CNNDB 2022). This includes a documented occurrence approximately 7 miles north of the project area and a documented historical occurrence 6 miles east of the project area in Happy Camp Area (CNDDB 2022). All but two of the documented occurrences in proximity to the Seiad and Horse Creek and Happy Camp Areas are across the Oregon border (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Mertensia bella*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Mielichhofer's copper moss *Mielichhoferia mielichhoferiana*	—	—	2B.3	Coniferous forest and woodland. Known from subalpine coniferous forest in California. Rock crevices, soil banks, roadsides. 1,230–6,400 feet in elevation. Perennial.	*May occur*. Rock crevice, soil bank, and roadside habitat potentially suitable for this species is present in the project area. *Mielichhoferia mielichhoferiana* has documented occurrences in proximity of the project area in Somes Bar and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles north of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Mielichhoferia mielichhoferiana*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Ghost-pipe *Monotropa uniflora*	—	—	2B.2	Broadleafed upland forest, north coast coniferous forest. Low mixed or conifer forest. 50–2,810 feet in elevation. Blooms June–August. Perennial.	*May occur*. Broadleafed upland and coniferous forest habitat potentially suitable for this species is present in the project area. *Monotropa uniflora* has a documented historical occurrence approximately 12 miles west of the project area in Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Monotropa uniflora*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Howell's montia *Montia howellii*	—	—	2B.2	Meadows and seeps, north coast coniferous forest, vernal pools. Meadows, North Coast coniferous forest, vernal pools, vernally mesic soils, moist lowland areas. Sometimes on roadsides. 30–3,300 feet in elevation. Blooms March–May. Annual.	*May occur*. Mesic habitat with serpentine substrate potentially suitable for this species is present in the project area. *Montia howellii* has documented occurrences in proximity to the project area in Orleans Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles southwest of the project area in Orleans Area (CNDDB 2022). Additionally, there is a documented occurrence in Oregon north of the Happy Camp Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Montia howellii*. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Wolf's evening-primrose *Oenothera wolfii*	—	—	1B.1	Coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest. Sandy substrates; usually mesic sites. 0–2,630 feet in elevation. Blooms May–October. Perennial.	*May occur*. Sandy habitat potentially suitable for this species is present in the project area. *Oenothera wolfii* has documented occurrences in proximity to the project area in Seiad and Horse Creek Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence directly adjacent to the project area in Seiad and Horse Creek and a documented historical occurrence directly adjacent to the project area in Orleans Areas (CCH2 2022; CNDDB 2022). The documented occurrence in Seiad and Horse Creek Area was potentially observed in the project area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Oenothera wolfii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Cascade grass-of-Parnassus *Parnassia cirrata* var. *intermedia*	—	—	2B.2	Meadows and seeps, bogs, and fens. Wet places. Rocky, sometimes serpentine soil. 2,540–6,560 feet in elevation. Blooms August–September. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Parnassia cirrata* var. *intermedia* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented historical occurrence approximately 1 mile west of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Parnassia cirrata* var. *intermedia*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Tracy's beardtongue *Penstemon tracyi*	—	—	1B.3	Upper montane coniferous forest. Dry rocky ridges, ledges, and cliffs, often in crevices. 6,490–7,200 feet in elevation. Blooms June–August. Perennial.	*May occur*. Rocky coniferous forest habitat potentially suitable for this species is present in the project area. *Penstemon tracyi* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence 1 mile southeast of the project area in Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Penstemon tracyi*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Scott Valley phacelia *Phacelia greenei*	—	—	1B.2	Serpentine soils, openings in conifer forest. 2,790–7,810 feet in elevation. Blooms April–June. Annual.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Phacelia greenei* has a documented occurrence approximately 3 miles east of the project area in Salmon River Area CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Phacelia greenei*. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Siskiyou phacelia *Phacelia leonis*	—	—	1B.3	Upper montane coniferous forest, meadows and seeps. Sandy flats, slopes, sometimes on serpentine. 3,930–6,560 feet in elevation. Blooms June–August. Annual.	*May occur*. Coniferous forest and meadow habitat potentially suitable for this species is present in the project area. *Phacelia leonis* has documented occurrences, most historical, in proximity to the project area in Seiad and Horse Creek, Happy Camp, Somes Bar, and Salmon Creek Areas (CCH2 2022; CNDDB 2022) This includes a documented occurrence approximately 10 miles southeast of the project area in Salmon River Area and a documented historical occurrence less than one mile west of the project area in Happy Camp Area (CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Phacelia leonis*. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Yreka phlox *Phlox hirsuta*	FE	SE	1B.2	Lower montane coniferous forest, upper montane coniferous forest. Open slopes and grasslands, on serpentine gravel. 2,690–4,200 feet in elevation. Blooms April–June. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Phlox hirsuta* has a documented occurrence approximately 18 miles southeast of the project area in Seiad and Horse Creek Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Phlox hirsuta*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Engelmann spruce *Picea engelmannii*	—	—	2B.2	Upper montane coniferous forest. Slopes and hillsides, often on alluvial terrace. 3,490–7,010 feet in elevation. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Picea engelmannii* has over 20 documented occurrences in proximity to the project area in Somes Bar and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 2 miles north of the project area in Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Picea engelmannii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Horned butterwort *Pinguicula macroceras*	—	—	2B.2	Meadow edges, seepage areas. Serpentine soil. 60–6,010 feet in elevation. Blooms April–June. Perennial.	*May occur*. Wetland habitat with serpentine substrate potentially suitable for this species is present in the project area. *Pinguicula macroceras* has documented occurrences in proximity to the project area in Happy Camp and Somes Bar Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles west of the project area in Somes Bar Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Pinguicula macroceras*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Whitebark pine *Pinus albicaulis*	FT	—	—	Upper red-fir forest to timberline, especially subalpine forest. Subalpine, arid, exposed areas; only at the upper reaches of the highest peaks throughout the western mountains. 6,000–12,200 feet in elevation. Blooms July–August. Perennial.	*May occur*. Subalpine coniferous forest habitat potentially suitable for this species is present in the project area. *Pinus albicaulis* has over 15 documented occurrences in proximity to the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022). This includes a documented occurrence approximately 1 mile west of the project area in the Salmon River Area and documented historical occurrence directly adjacent to the project area in the Somes Bar Area (Calflora 2022; CCH2 2022). Treatments could result in direct or indirect adverse effects on *Pinus albicaulis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
White-flowered rein orchid *Piperia candida*	—	—	1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleafed upland forest. Open to shady sites. Sometimes on serpentine. 150–5,300 feet in elevation. Blooms May–September. Perennial.	*May occur*. Coniferous and broadleafed upland forest habitat potentially suitable for this species is present in the project area. *Piperia candida* has documented occurrences in proximity to the project area in Seiad and Horse Creek, Happy Camp, Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes documented occurrences less than 1 mile west and north of the project area in Seiad and Horse Creek and Salmon River Areas (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Piperia candida*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Tundra thread moss *Pohlia tundrae*	—	—	2B.3	Alpine boulder and rock field. Moss growing on gravelly, damp soil. 7,220–9,840 feet in elevation. Perennial.	*May occur*. Gravelly damp soil habitat potentially suitable for this species is present in the project area. *Pohlia tundrae* a has documented occurrence approximately 1 mile north of the project area in Salmon River Area from 2021 (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Pohlia tundrae*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Oregon polemonium *Polemonium carneum*	—	—	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Moist to dry, open areas. 0–6,010 feet in elevation. Blooms April–September. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Polemonium carneum* has documented occurrences in proximity of the project area in Seiad and Horse Creek, Happy Camp, and Somes Bar Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 9 miles northeast of the project area in the Somes Bar Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Polemonium carneum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Mt. Shasta sky pilot *Polemonium pulcherrimum* var. *shastense*	—	—	1B.2	Alpine boulder and rock fields, subalpine coniferous forest, upper montane coniferous forest. Sometimes volcanic. 7,130–12,800 feet in elevation. Blooms June–September. Perennial.	*May occur*. Coniferous forest habitat with volcanic and non-volcanic substrates potentially suitable for this species is present in the project area. *Polemonium pulcherrimum* var. *shastense* has a documented occurrence 8 miles east of the project area in the Salmon River Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Polemonium pulcherrimum var. shastense*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Robbins' pondweed *Potamogeton robbinsii*	—	—	2B.3	Deep water, lakes. *Potamogeton robbinsii* has been recorded along creeks. 5,020–10,830 feet in elevation. Blooms July–August. Geophyte.	*May occur*. Deep water, lake, and creek habitat potentially suitable for this species is present in the project area. *Potamogeton robbinsii* has documented occurrences in the Some Bar Area (CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3 miles northeast of the project area in Somes Bar Area (CCH2 2022). Treatments could result in direct and indirect adverse effects on *Potamogeton robbinsii*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Crested potentilla *Potentilla cristae*	—	—	1B.3	Seasonally wet gravels, talus, swales, and seeps; gravelly or rocky sites; often on serpentine. 5,900–9,190 feet in elevation. Blooms August–September. Perennial.	*May occur*. Mesic gravelly habitat potentially suitable for this species is present in the project area. *Potentilla cristae* has documented occurrences in proximity to the project area in the Somes Bar and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3 miles north of the project area in the Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Potentilla cristae*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Siskiyou bells *Prosartes parvifolia*	—	—	1B.2	Lower montane coniferous forest, upper montane coniferous forest. Occurs in disturbed and undisturbed sites, but most productive when growing at roadsides, disturbed areas, burned areas. 2,100–4,840 feet in elevation. Blooms May–September. Geophyte.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Prosartes parvifolia* has a documented historical occurrence approximately 4 miles northwest of the project area in Happy Camp Area (CCCH2 2022). Additionally, this species has a documented occurrence approximately 12 miles southwest of the project area in Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Prosartes parvifolia*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Showy raillardella *Raillardella pringlei*	—	—	1B.2	Bogs and fens, meadows and seeps, upper montane coniferous forest. Wet meadows, streambanks, seeps, on serpentine-derived soils, in conifer forest. 3,940–7,510 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Wetland and streambank habitat with serpentine substrate potentially suitable for this species is present in the project area. *Raillardella pringlei* has several documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence 3 miles east of the project area in Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Raillardella pringlei*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
White beaked-rush *Rhynchospora alba*	—	—	2B.2	Bogs and fens, meadows and seeps, marshes and swamps. Freshwater marshes and sphagnum bogs. 200–6,690 feet in elevation. Blooms June–August. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area. *Rhynchospora alba* has several documented occurrences, in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence 8 miles southeast of the project area in Salmon River Area (CNDDB 2022). Additionally, *Rhynchospora alba* has documented occurrences in Oregon (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Rhynchospora alba*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Columbia yellow cress *Rorippa columbiae*	—	—	1B.2	Meadows and seeps, playas, vernal pools, lower montane coniferous forest. Streambanks, lake or pond margins, meadows, wet fields. 3,280–5,910 feet in elevation. Blooms May–September. Geophyte.	*May occur*. Mesic and streambank habitat potentially suitable for this species is present in the project area. *Rorippa columbiae* has a documented historical occurrence directly adjacent to the project area in Orleans Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Rorippa columbiae*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Gasquet rose *Rosa gymnocarpa* var. *serpentina*	—	—	1B.3	Chaparral, cismontane woodland. Serpentinite. Often on roadsides, sometime on ridges, streambanks, and in openings. 1,190–7,320 feet in elevation. Blooms April–June. Geophyte.	*May occur*. Chaparral and woodland habitat with serpentine substrate potentially suitable for this species is present in the project area. *Rosa gymnocarpa* var. *serpentina* has documented occurrences in proximity of the project area in Happy Camp and Seiad and Horse Creek Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3 miles northwest of the project area in Seiad and Horse Creek Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Rosa gymnocarpa* var. *serpentina*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Snow dwarf bramble *Rubus nivalis*	—	—	2B.3	North Coast coniferous forest. Moist semi-shaded to open areas. 3,540–4,410 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Rubus nivalis* has documented occurrences in proximity to the project area in the Happy Camp and Somes Bar Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles north of the project area in the Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Rubus nivalis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Scott Mountain sandwort *Sabulina stolonifera*	—	—	1B.3	Lower montane coniferous forest. Serpentine soils. 4,100–4,590 feet in elevation. Blooms May–August. Perennial.	*May occur*. Coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area. *Sabulina stolonifera* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Sabulina stolonifera*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
American saw-wort *Saussurea americana*	—	—	2B.2	Lower montane coniferous forest, meadows and seeps. Steep rocky hillsides, moist meadows. Mesic sites. 5,570–6,400 feet in elevation. Blooms July–August. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Saussurea americana* has documented occurrences in proximity to the project area in Seiad and Horse Creek Area near the Pacific Crest Trail (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 3.4 miles north of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Saussurea americana*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Tufted saxifrage *Saxifraga cespitosa*	—	—	2B.3	Meadows and seeps. Damp, rocky places. 3,000–6,500 feet in elevation. Blooms June–September. Perennial.	*May occur*. Rocky mesic habitat potentially suitable for this species is present in the project area. *Saxifraga cespitosa* has documented occurrences in proximity to the project area in Somes Bar and Seiad Horse Creek Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes two documented occurrences approximately 3 miles north of the project area in Somes Bar Area (Calflora 2022; CNDDB 2022). *Saxifraga cespitosa* has documented occurrences in other western states including Oregon and Utah (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Saxifraga cespitosa*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Water bulrush *Schoenoplectus subterminalis*	—	—	2B.3	Montane lake margins, in shallow water. Streams low in nutrients. 2,460–7,380 feet in elevation. Blooms June–August. Geophyte.	*May occur*. Lake and stream habitat potentially suitable for this species is present in the project area. *Schoenoplectus subterminalis* has documented occurrences in proximity to the project area in Happy Camp, Orleans, and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes documented occurrences approximately 8 miles east of the project area in Salmon River Area and 2 miles west of the project area in Orleans Area (CCH2 2022). Treatments could result in direct or indirect adverse effects on *Schoenoplectus subterminalis*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Cascade stonecrop *Sedum divergens*	—	—	2B.3	Rocky alpine slopes and cool cliffs. 5,000–7,660 feet in elevation. Blooms July–September. Perennial.	*May occur*. Rocky habitat potentially suitable for this species is present in the project area. *Sedum divergens* has documented occurrences in proximity to the project area in the Seiad and Horse Creek, Happy Camp, and Orleans Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 5 miles west of the project area in the Happy Camp Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Sedum divergens*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Marble Mountains stonecrop *Sedum marmorense*	—	—	1B.2	Upper montane coniferous forest, subalpine coniferous forest. Openings, rocky, talus, rock crevices. Sometimes ultramafic. 6,150–7,695 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Sedum marmorense* has documented occurrences in proximity to the project area in Seiad and Horse Creek and Somes Bar Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 2 northwest of the project area in Somes Bar Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Sedum marmorense*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Applegate stonecrop *Sedum oblanceolatum*	—	—	1B.1	Upper montane coniferous forest. Rocky sites. 1,310–6,560 feet in elevation. Blooms June–July. Perennial.	*May occur*. Rocky coniferous forest habitat potentially suitable for this species is present in the project area. *Sedum oblanceolatum* has documented occurrences in proximity to the project area in Seiad and Horse Creek Area (CCH22022; CNDDB 2022). This includes a documented occurrence approximately 2 northwest of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Sedum oblanceolatum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Canyon Creek stonecrop *Sedum paradisum* ssp. *paradisum*	—	—	1B.3	Chaparral, lower montane coniferous forest, subalpine coniferous forest, broadleafed upland forest. Rock faces, in crevices of exposed granite. 650–6,890 feet in elevation. Blooms May–June. Perennial.	*May occur*. Rocky granitic habitat potentially suitable for this species is present in the project area. *Sedum paradisum* ssp. *paradisum* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022) This includes a documented occurrence approximately 1 mile south of the project area in Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Sedum paradisum* ssp. *paradisum*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Coast checkerbloom *Sidalcea oregana* ssp. *eximia*	—	—	1B.2	Meadows and seeps, north coast coniferous forest, lower montane coniferous forest. Near or in meadows, in gravelly soil. 10–5,920 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous forest and meadow habitat potentially suitable for this species is present in the project area. *Sidalcea oregana* ssp. *eximia* has documented occurrences in proximity to the project area in Salmon River Area (Calflora 2022; CCH2 2022; CNDDB 2022) This includes a documented occurrence approximately 1 mile south of the project area in Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Sidalcea oregana* ssp. *eximia*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Hooker's catchfly *Silene hookeri*	—	—	2B.2	Cismontane woodland, lower montane coniferous forest, chaparral. Grassy openings (often), rocky slopes (sometimes), serpentinite (sometimes). 490–4,140 feet in elevation. Blooms April–June. Perennial.	***Known to occur***. *Silene hookeri* has a documented population in the project area in Orleans Area along Ishi-Pishi Road south of the confluence of the Klamath and Salmon Rivers from two collections (CNDDB 2022). Woodland, coniferous forest, and chaparral habitat with serpentine and non-serpentine substrates potentially suitable for this species is present in the project area. *Silene hookeri* has documented occurrences in proximity of the project area in Seiad and Horse Creek Happy Camp, Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Silene hookeri*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Marble Mountain campion *Silene marmorensis*	—	—	1B.2	Broadleafed upland forest, lower montane coniferous forest, cismontane woodland, chaparral. Openings with little vegetation, shady areas, often along trails; can be on serpentine. 560–4,165 feet in elevation. Blooms June–August. Perennial.	***Known to occur***. This species has documented occurrences in the project area mostly along the Salmon River and the North and South Forks of the Salmon River, as well as in the mountains between the Forks of the Salmon River (CNDDB 2022). Broadleafed upland forest, woodland, coniferous forest, and chaparral habitat with serpentine and non-serpentine substrates potentially suitable for this species is present in the project area. *Silene marmorensis* has documented occurrences in proximity to the project area in Somes Bar, Orleans, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Silene marmorensis*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Klamath Mountain catchfly *Silene salmonacea*	—	—	1B.2	Lower montane coniferous forest. Openings, sometimes on serpentine. 2,540–4,410 feet in elevation. Blooms May–July. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Silene salmonacea* has documented occurrences in proximity to the project area in the Salmon River Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 9 miles southeast of the project area in the Salmon River Area (Calflora 2022). Treatments could result in direct or indirect adverse effects on *Silene salmonacea*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Hairy marsh hedge-nettle *Stachys pilosa*	—	—	2B.3	Great Basin scrub, meadows and seeps. Mesic sites. 2,575–6,710 feet in elevation. Blooms June–August. Geophyte.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. *Stachys pilosa* has a documented occurrences in the Seiad and Horse Creek Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 3 miles northwest of the project area in Seiad and Horse Creek Area (CNNDB 2022). Treatments could result in direct or indirect adverse effects on *Stachys pilosa*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities and only during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Howell's tauschia *Tauschia howellii*	—	—	1B.3	Subalpine coniferous forest, upper montane coniferous forest. Gravelly, granitic, ridges and slopes. 5,640–8,005 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous habitat potentially suitable for this species is present in the project area. *Tauschia howellii* has documented occurrences in proximity of the project area in Somes Bar and Salmon River Areas (Calflora 2022; CNDDB 2022). This includes a documented occurrence less than one mile east of the project area in the Somes Bar Area (CNDDB 2022). Additionally, *Tauschia howellii* has documented occurrences in Oregon (Calflora 2022; CCH2 2022). Treatments could result in direct or indirect adverse effects on *Tauschia howellii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Robust false lupine *Thermopsis robusta*	—	—	1B.2	North Coast coniferous forest, broadleafed upland forest. Ridgetops; sometimes on serpentine. 1,200–4,610 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Coniferous and broadleafed upland forest habitat potentially suitable for this species is present in the project area. *Thermopsis robusta* has documented occurrences in proximity to the project area in Happy Camp, Somes Bar, Orleans Areas (Calflora 2022; CNDDB 2022). This includes multiple documented occurrences directly adjacent to the project area in Happy Camp, Somes Bar, and Orleans Areas (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Thermopsis robusta*. However, this species is a geophyte. Impacts on this species would be avoided by implementing only non-ground-disturbing treatment activities during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Lyall's tonestus *Tonestus lyallii*	—	—	2B.3	Alpine talus, barrens. 4,920–9,190 feet in elevation. Blooms July–August. Geophyte.	*May occur*. Woodland habitat potentially suitable for this species is present in the project area. *Tonestus lyallii* has documented occurrences in proximity to the project area in Salmon River Area (CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 4 miles southwest of the project area in Salmon River Area (CNNDB 2022). Treatments could result in direct or indirect adverse effects on *Tonestus lyallii*. However, this species is a geophyte. Impacts on this species would be avoided by implementing non-ground-disturbing treatment activities during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Siskiyou clover *Trifolium siskiyouense*	—	—	1B.1	Meadows and seeps. Mesic sites, wet mountain meadows, sometimes on streambanks. 2,890–4,920 feet in elevation. Blooms June–July. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. Treatments could result in direct or indirect adverse effects on *Trifolium siskiyouense*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Henderson's triteleia *Triteleia hendersonii*	—	—	2B.2	Cismontane woodland. Open slopes and road banks. 2,490–3,940 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Woodland habitat potentially suitable for this species is present in the project area. *Triteleia hendersonii* has documented occurrences in proximity of the project area in Seiad and Horse Creek and Happy Camp Areas (Calflora 2022; CCH2 2022; CNDDB 2022). This includes a documented occurrence approximately 6 miles northeast of the project area in Seiad and Horse Creek Area (CNNDB 2022). Treatments could result in direct or indirect adverse effects on *Triteleia hendersonii*. However, this species is a geophyte. Impacts on this species would be avoided by implementing non-ground-disturbing treatment activities during the dormant season (i.e., when the plant has no aboveground parts), generally in the winter. Ground-disturbing treatment activities may result in impacts to this species even when dormant. If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, or if ground-disturbing treatment activities are proposed in potential habitat for this species, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Little-leaved huckleberry *Vaccinium scoparium*	—	—	2B.2	Rocky, subalpine woods. Sometimes serpentine. 3,400–7,220 feet in elevation. Blooms June–August. Perennial.	***Known to occur***. *Vaccinium scoparium* has a documented historical occurrence in the project area in Salmon River Area at Jackson Lake (CNDDB 2022). Rocky subalpine woodland habitat potentially suitable for this species is present in the project area. *Vaccinium scoparium* has over fifteen documented occurrences in proximity of the project area in Seiad and Horse Creek, Somes Bar, and Salmon River Areas (Calflora 2022; CCH2 2022; CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Vaccinium* scoparium. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Howell's violet *Viola howellii*	—	—	2B.2	Moist, shady areas, conifer forest. 160–4,250 feet in elevation. Blooms May–June. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. *Viola howellii* has documented occurrences in proximity of the project area in Happy Camp Area (Calflora 2022; CNDDB 2022). This includes a documented occurrence approximately 6 miles north of the project area in Seiad and Horse Creek Area (CNDDB 2022). Treatments could result in direct or indirect adverse effects on *Viola howellii*. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Reptiles and Amphibians					
Cascades frog *Rana cascadae*	—	SC SSC	—	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows; open coniferous forests. Standing water required for reproduction. Hibernates in mud on the bottom of lakes and ponds during the winter. Cascades frog is associated closely with water and is rarely found more than a few meters (i.e., 3 to 20 feet) from aquatic habitat.	*May occur*. The Cascades frog range includes the southern half of the Somes Bar area, the Orleans area, and the Salmon River area of the project area. Many documented occurrences of Cascades frog are located within this portion of its range, including areas near Granite Creek, Burney Valley Creek, Shackleford Creek, Red Rock Creek, Granite Creek, Wooley Creek, North Fork Salmon River, and other smaller tributaries and lakes (CNDDB 2022). Lakes, streams, and ponds in the project area may provide habitat suitable for this species. This analysis assumes that treatment activities conducted greater than approximately 20 feet from aquatic habitat suitable for Cascades frog (i.e., lakes, streams, ponds, wet meadows with standing water) would avoid impacts on individual frogs. Treatment activities conducted within 20 feet of aquatic habitat suitable for Cascades frog could result in injury or mortality of individual frogs, if present. If avoidance of areas within 20 feet of aquatic habitat suitable for this species is not feasible, then focused visual encounter surveys for Cascades frogs would be implemented (pursuant to SPR BIO-10), and if individuals are detected, occupied habitat areas would be flagged within which no treatment activities would occur, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of Cascades frogs would be implemented (pursuant to Mitigation Measure BIO-2a). If full implementation of Mitigation Measure BIO-2a is not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA for Cascades frog.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Foothill yellow-legged frog *Rana boylii*	—	SSC	—	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis. Foothill yellow-legged frog is known to occur within upland habitat up to approximately 200 feet away, but typically no more than 50 to 70 feet away, from aquatic habitat (CDFW 2018b).	*May occur*. There are many documented occurrences of foothill yellow-legged frog in the vicinity of the project area, primarily associated with the Klamath River, North Fork Salmon River, and South Fork Salmon River (CNDDB 2022). This analysis assumes that treatment activities conducted greater than approximately 200 feet from aquatic habitat suitable for foothill yellow-legged frog (i.e., perennial [Class I and Class II] streams) would avoid impacts on individual frogs. Treatment activities conducted within 200 feet of aquatic habitat suitable for foothill yellow-legged frog could result in injury or mortality of individual frogs, if present. If avoidance of areas within 200 feet of aquatic habitat suitable for this species is not feasible, then focused visual encounter surveys for foothill yellow-legged frogs would be implemented (pursuant to SPR BIO-10), and if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of foothill yellow-legged frogs would be implemented (pursuant to Mitigation Measure BIO-2b).
Northern red-legged frog *Rana aurora*	—	SSC	—	Humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover. Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	*Not expected to occur*. The project area is outside of the documented range of northern red-legged frog. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Pacific tailed frog *Ascaphus truei*	—	SSC	—	Occurs in montane hardwood-conifer, redwood, Douglas fir and ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15 degrees C. Pacific tailed frog is associated closely with water and is rarely found more than a few meters (i.e., 3 to 20 feet) from aquatic habitat.	*May occur*. The range of Pacific tailed frog includes the entire project area. There are many documented occurrences of this species including areas near North Little Fork Salmon River, Plummer Creek, Reynolds Creek, Natuket Creek, Dobbins Creek, King Creek, Independence Creek, Seiad Creek, Oak Flat Creek, Walked Creek, Grider Creek, and East Walker Creek (CNDDB 2022). Streams in the project area may provide habitat suitable for this species. Treatment activities conducted greater than approximately 20 feet from aquatic habitat suitable for Pacific tailed frog (i.e., perennial [Class I and Class II] streams) would avoid impacts on individual frogs. Treatment activities conducted within 20 feet of aquatic habitat suitable for Pacific tailed frog could result in injury or mortality of individual frogs. If avoidance of areas within 20 feet of aquatic habitat suitable for this species is not feasible, then focused visual encounter surveys for Pacific tailed frogs would be implemented (pursuant to SPR BIO-10), and if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of Pacific tailed frogs would be implemented (pursuant to Mitigation Measure BIO-2b).

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Scott Bar salamander *Plethodon asupak*	—	ST	—	Found only in the vicinity of the Scott River in Siskiyou County. Associated with rocky forested areas, especially thick moss-covered talus. Mostly found in talus slopes or rock crevices, but may move into the forest during very wet periods and reside beneath woody debris.	*May occur*. The range of Scott Bar salamander includes the area near the confluence of the Klamath River and the Scott River, within the Seiad and Horse Creek area of the project area. There are several documented occurrences of this species south of Seiad Valley near Walker Creek, and in the Marble Mountain Wilderness (CNDDB 2022). Rocky areas in forests and talus slopes in the project area may provide habitat suitable for this species. Rocky talus areas that would provide habitat optimal for Scott Bar salamander would not be targeted for treatment. However, during wet periods, individual salamanders may move into forest habitats and take cover under woody debris. Mechanical treatment activities would be limited during wet periods pursuant to several SPRs designed to protect water quality and prevent erosion. However, some prescribed burning, mechanical treatments, or manual treatments could be implemented during periods when Scott Bar salamanders may be present in forest habitats (i.e., outside of rocky talus areas). Treatment activities could result in injury or mortality of salamanders. Prior to implementation of treatment activities in forest habitat that contains rocky areas or is located within approximately 50 feet of rocky talus habitat, focused visual encounter surveys for Scott Bar salamander would be implemented (pursuant to SPR BIO-10); if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of Scott Bar salamanders would be implemented (pursuant to Mitigation Measure BIO-2a). If full implementation of Mitigation Measure BIO-2a is not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA for Scott Bar salamander.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Siskiyou Mountains salamander *Plethodon stormi*	—	ST	—	Mixed conifer habitat of dense, pole-to-mature size, trees. Active above ground only during spring and fall rains. Found under loose rock rubble at the base of talus slopes or under surface objects. Mostly found in talus slopes or rock crevices, but may move into the forest during very wet periods and reside beneath woody debris.	*May occur*. The range of Siskiyou Mountains salamander includes areas north of SR 96 between Happy Camp and Buckhorn Ridge and areas south of SR 96 between Happy Camp and Seiad Valley south to the area north of Bear Lake and Turk Lake. There are many documented occurrences of this species including areas near Grider Creek, Horse Creek, China Creek, Walker Creek, Elk Creek, Slide Creek, East Fork Indian Creek, Fourmile Creek, Fort Goff Creek, and Seiad Creek (CNDDB 2022). Rocky areas in forests and talus slopes in the project area may provide habitat suitable for this species. Rocky talus areas that would provide habitat optimal for Siskiyou Mountains salamander would not be targeted for treatment. However, during wet periods, individual salamanders may move into forest habitats and take cover under woody debris. Mechanical treatment activities would be limited during wet periods pursuant to several SPRs designed to protect water quality and prevent erosion. However, some prescribed burning, mechanical treatments, or manual treatments could be implemented during periods when Siskiyou Mountains salamanders were present in forest habitats (i.e., outside of rocky talus areas). Treatment activities could result in injury or mortality of salamanders. Prior to implementation of treatment activities in forest habitat that contains rocky areas or is located within approximately 50 feet of rocky talus habitat, focused visual encounter surveys for Siskiyou Mountains salamander would be implemented (pursuant to SPR BIO-10); if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of Siskiyou Mountains salamanders would be implemented (pursuant to Mitigation Measure BIO-2a). If full implementation of Mitigation Measure BIO-2a is not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA for Siskiyou Mountains salamander.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Southern long-toed salamander *Ambystoma macrodactylum sigillatum*	—	SSC	—	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks. Adult southern long-toed salamanders can also be found under wood, logs, rocks, bark, or underground in animal burrows within approximately 330 feet (100 meters) of aquatic habitat.	*May occur*. The range of southern long-toed salamander includes the eastern half of the project area, south and east of Cecilville, east of Sawyer's Bar, and east of the Marble Mountain Wilderness Area. There are several documented occurrences of this species within this portion of its range, including areas near South Fork Salmon River and Shackleford Creek (CNDDB 2022). Meadows, ponds, lakes, and streams in the eastern half of the project area may provide habitat suitable for this species. This analysis assumes that treatment activities conducted greater than approximately 330 feet from aquatic habitat suitable for southern long-toed salamander (i.e., streams, lakes) would avoid impacts on individual salamanders. Treatment activities conducted within 330 feet of aquatic habitat suitable for southern long-toed salamander could result in injury or mortality of individual frogs, if present. If avoidance of areas within 330 feet of aquatic habitat suitable for this species is not feasible, then focused visual encounter surveys for southern long-toed salamander would be implemented (pursuant to SPR BIO-10), and if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, salamanders would be relocated by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of southern long-toed salamanders would be implemented (pursuant to Mitigation Measure BIO-2b).

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Southern torrent salamander *Rhyacotriton variegatus*	—	SSC	—	Coastal redwood, Douglas fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rock within trickling water. Occasionally found in riparian vegetation adjacent to water, but usually found in contact with water.	*May occur*. The range of southern torrent salamander includes portions of the project area along SR 96, and does not include the Salmon River area of the project area. There are many documented occurrences of this species within this portion of its range, including areas near the Klamath River, Sandy Bar Creek, Eyese Creek, Dobbins Creek, Kennedy Creek, Oak Flat Creek, South Fork China Creek, and West Girder Creek (CNDDB 2022). Streams and seeps in the project area may provide habitat suitable for this species. Treatment activities conducted greater than approximately 20 feet from aquatic habitat suitable for southern torrent salamander (i.e., perennial [Class I and Class II] streams, seeps) would avoid impacts on individual salamanders. Treatment activities conducted within 20 feet of aquatic habitat suitable for southern torrent salamanders could result in injury or mortality of individual salamanders. If avoidance of areas within 20 feet of aquatic habitat suitable for this species is not feasible, then focused visual encounter surveys for southern torrent salamanders would be implemented (pursuant to SPR BIO-10). If individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, salamanders would be relocated by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of southern torrent salamanders would be implemented (pursuant to Mitigation Measure BIO-2b).
Western pond turtle *Emys marmorata*	—	SSC	—	Ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to approximately 1,500 feet (0.5 km) from water for egg-laying.	*May occur*. The range of western pond turtle includes the entire project area, and the species has been documented within the Klamath River (CNDDB 2022). Rivers, streams, ditches, and ponds in the project area may provide aquatic habitat suitable for western pond turtle, and grassland and open woodland habitat adjacent to these features may provide upland habitat suitable for the species. Prior to implementation of treatment activities within approximately 1,500 feet of streams, lakes, and ponds, a focused visual encounter survey for western pond turtle will be implemented (pursuant to SPR BIO-10); if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, turtles would be relocated by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of western pond turtles would be implemented (pursuant to Mitigation Measure BIO-2b).

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Birds					
American peregrine falcon *Falco peregrinus anatum*	FD	SD FP	—	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	*May occur*. The range of American peregrine falcon includes the entire project area. There are several documented occurrences of nesting American peregrine falcons in the project area, near Happy Camp, Somes Bar, and Forks of Salmon (CNDDB 2022). Cliffs and banks in the project area may provide nesting habitat suitable for this species. Habitat suitable for nesting American peregrine falcon (i.e., cliffs, banks) would not be targeted for treatment. However, depending on the proximity of treatment activities to nesting habitat, treatment activities conducted during the nesting bird season (February 1–August 31) could result in 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. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If an active American peregrine falcon nest is observed, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer of at least 0.5 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	—	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	*May occur*. Most of the project area is within the year-round range of bald eagle, and areas north and west of SR 96 (generally, with some exceptions) are within the winter range of bald eagle. Nesting occurrences of bald eagle have been documented near the Klamath River south of Orleans (CNDDB 2022). Large trees in the project area adjacent to the Klamath River may provide nesting habitat suitable for bald eagle. Nesting habitat suitable for bald eagle (i.e., large, old growth, or dominant live trees) would not be targeted for treatment. However, depending on the proximity of treatment activities to nesting habitat, treatment activities conducted during the nesting bird season (February 1–August 31) could result in 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. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If an active bald eagle nest is observed, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer of at least 0.5 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Bank swallow *Riparia riparia*	—	ST	—	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	*Not expected to occur*. The project area is outside of the documented range of bank swallow. Project implementation would not result in impacts on this species.
Black swift *Cypseloides niger*	—	SSC	—	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	*May occur*. The range of black swift includes the center of the project area between approximately Somes Bar and Cottage Grove. There is one documented occurrence of black swift in the project area, which was a single bird observed during the breeding season near Orleans (CNDDB 2022). While this species would be uncommon in the project area, cliff or canyon habitat in the project area, especially near waterfalls, may provide nesting habitat suitable for black swifts. Nesting habitat suitable for black swift (i.e., cliffs) would not be targeted for treatment. However, treatment activities conducted during the nesting bird season (February 1–August 31) near nesting habitat could disturb active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel), potentially resulting in abandonment and loss of eggs or chicks. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If an active black swift colony is observed, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of at least 100 feet would be established around the colony within which no treatment activities would occur until the chicks have fledged and the colony is no longer active as determined by a qualified RPF or biologist.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Golden eagle *Aquila chrysaetos*	—	FP	—	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.	*May occur*. The range of golden eagle includes the entire project area. The nearest documented golden eagle nesting occurrence is approximately 14 miles east of the project area near Fort Jones (CNDDB 2022). Canyons and large trees in the project area may provide nesting habitat suitable for this species. Nesting habitat suitable for golden eagle (i.e., large trees, cliffs) would not be targeted for treatment. However, depending on the proximity of treatment activities to nesting habitat, treatment activities conducted during the nesting bird season (February 1–August 31) could result in 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. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If an active golden eagle nest is observed, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer of at least 0.5 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
Great gray owl *Strix nebulosa*	—	SE	—	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	*Not expected to occur*. The project area is outside of the documented range of great gray owl. Project implementation would not result in impacts on this species.
Greater sandhill crane *Antigone canadensis tabida*	—	ST FP	—	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4-mile of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	*Not expected to occur*. The project area is outside of the documented range of greater sandhill crane. Project implementation would not result in impacts on this species.
Marbled murrelet *Brachyramphus marmoratus*	FT	SE	—	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir.	*Not expected to occur*. The project area is too far inland to provide nesting habitat suitable for marbled murrelets, which typically nest within a few miles and up to approximately 15 miles from the coast. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Northern goshawk *Accipiter gentilis*	—	SSC	—	Nests primarily in conifer forest and aspen stands with high canopy closure (typically greater than 70 percent), relatively high density of large live and dead trees, low density of small trees, and low shrub/sapling and ground cover. Reuses old nests and maintains alternate nest sites. Often nests on gentle to moderate north slopes and near water. Forages in moderately dense, mature forests and younger forests, some openings, and along forest edges.	*May occur*. The range of northern goshawk includes the entire project area. There are several documented northern goshawk nesting occurrences in Klamath National Forest, adjacent to the project area near Orleans, the Salmon River, Ukonom Mountain, and Happy Camp (CNDDB 2022). Forest habitat in the project area may provide nesting habitat suitable for northern goshawk. Large trees, which are typically used by nesting northern goshawks, would not be targeted for treatments. However, treatments may occur within forest habitat suitable for nesting goshawks (e.g., forest stands with large trees, forest stands with high canopy cover), and, depending on the proximity of treatment activities to nesting habitat, treatment activities conducted during the goshawk nesting season (February 1–August 31) could result in 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. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist following established protocols (i.e., *Northern Goshawk Inventory and Monitoring Technical Guide*; US Forest Service 2006) pursuant to SPR BIO-10. Prior to implementing SPR BIO-10 for this species, the project proponent will contact US Forest Service biologists from Klamath National Forest or Six Rivers National Forest, as applicable based on the location of the treatment area, to obtain any recent survey and occurrence data for northern goshawk that have not been made publicly available (e.g., in the CNDDB). If an active northern goshawk nest is observed or reported by US Forest Service biologists within 0.25 mile of a treatment area, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of at least 0.25 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.

Northern spotted owl *Strix occidentalis caurina*	FT	ST SSC	—	Old growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of large trees. High, multistory canopy dominated by large trees, many trees with cavities or broken tops, woody debris, and space under canopy.	*May occur*. The northern spotted owl range includes the entire project area. There are many documented nest sites, activity centers, and other observations (e.g., individual owls, pairs) in the vicinity of the project area (CNDDB 2022). Forest habitat with features preferred by northern spotted owl (e.g., old growth characteristics, large trees, high canopy coverage, complex understory features, downed woody debris) may provide nesting or foraging habitat suitable for the species. Most of the forest habitat within the project area, especially in areas where WUI fuel reduction treatments are proposed, does not contain nesting habitat suitable for northern spotted owl due to the habitat's structural characteristics (e.g., small trees, low degree of canopy cover, lack of old growth forest habitat) and existing level of disturbance due to proximity to private lands and development. However, portions of the project area contain or are adjacent to forest habitat that may provide nesting habitat suitable or marginally suitable for northern spotted owl due to the age and composition of the forest stands. Large trees, which are typically used by nesting northern spotted owls, would not be targeted for treatments. However, treatments may occur within forest habitat suitable for nesting northern spotted owls (e.g., forest stands with large trees, forest stands with high canopy cover), and, depending on the proximity of treatment activities to nesting habitat, treatment activities conducted during the sensitive period of the nesting season for this species (February 1–July 9) that generate loud and continuous noise (i.e., heavy equipment, multiple vehicles, chainsaws) could result in 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. Through implementation of the project-specific refinements to SPR BIO-1, SPR BIO 10, Mitigation Measure BIO-1a for northern spotted owl, potential project-related disturbances to active nests would be minimized and avoided through a combination of: 1) existing data review and coordination with the Klamath National Forest or Six Rivers National Forest to obtain known nesting occurrences and best available habitat modeling and mapping (e.g., NSO-EVEG GIS layer) in the project region; 2) protocol-level surveys and/or limited operating periods and no-disturbance buffers for any suitable nesting habitat subject to project disturbances that has not been surveyed for the species recently; and 3) implementation of limited operating periods and no-disturbance buffers around nest sites. The specifications for data review, applicability, timing, and area of northern spotted owl limited operating periods and no-disturbance buffers vary with the type of project activity and other factors, following USFWS guidance, and are described in detail in Attachment A (Standard Project Requirements and Mitigation Measures). USFWS-designated critical habitat for northern spotted owl does not include private lands; therefore, critical habitat for northern spotted owl is not present within the project area and would not be affected by project implementation.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Olive-sided flycatcher *Contopus cooperi*	—	SSC	—	Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain.	*May occur*. While there are no documented nesting occurrences of olive-sided flycatcher in the project area (CNDDB 2022), the project area is within the range of this species and habitat potentially suitable for nesting olive-sided flycatchers is present in forest habitat in the project area. Treatment activities conducted during the nesting bird season (February 1–August 31) could result in 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. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If an active olive-sided flycatcher nest is observed, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of at least 100 feet would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
Western snowy plover *Charadrius nivosus nivosus*	FT	SSC	—	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	*Not expected to occur*. The project area is outside of the documented range of western snowy plover. Project implementation would not affect this species.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	—	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	*Not expected to occur*. The project area is within the historic range of western yellow-billed cuckoo; however, this species no longer occupies much of its historic range. The nearest occurrences of western yellow-billed cuckoo are west of the project area near I-5, and are historic (i.e., from 1920 and 1951; CNDDB 2022). The current range of this species no longer includes the project area. Project implementation would not affect this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Fish					
Chinook salmon - upper Klamath and Trinity Rivers ESU *Oncorhynchus tshawytscha* pop. 30	FC	SC SSC	—	Spring-run chinook in the Trinity River and the Klamath River upstream of the mouth of the Trinity River. Major limiting factor for juvenile chinook salmon is temperature, which strongly effects growth and survival.	*May occur*. The range of the Chinook salmon – upper Klamath and Trinity Rivers ESU includes the entire project area, and this species has been documented in Wooley Creek from the confluence with the Salmon River upstream to the confluence with Big Elk Fork, which is located adjacent to several treatment areas in the project area (CNDDB 2022). Streams and segments of the Klamath River in the project area may provide habitat suitable for this species. Rivers and streams in the project area would not be targeted for treatment. Further, pursuant to SPR HYD-4, WLPZs would be implemented adjacent to streams in the project area, which would limit the types of treatments that would occur adjacent to streams (i.e., mechanical treatments). Because no in-water work would occur and indirect impacts on streams would be avoided through implementation of SPRs, project implementation would not result in impacts on special-status fish species.
Coast cutthroat trout *Oncorhynchus clarkii clarkii*	—	SSC	—	Small coastal streams from the Eel River to the Oregon border. Small, low gradient coastal streams and estuaries. Need shaded streams with water temperatures less than 18 C, and small gravel for spawning.	*Not expected to occur*. The project area is outside of the documented range of coast cutthroat trout. Project implementation would not result in impacts on this species.
Klamath River lamprey *Entosphenus similis*	—	SSC	—	Upper Klamath River and upper Klamath Lake. Adults need coarser gravel-rubble substrate for spawning. Ammocoetes need sand/mud substrate in shallow pools.	*May occur*. The range of Klamath River lamprey includes most of the project area including the Klamath River and tributary streams to the Klamath River. This species has been documented in several streams in the project area, including Dillon Creek, Clear Creek, Elk Creek, Indian Creek, Thompson Creek, Fort Goff Creek, and Seiad Creek (CNDDB 2022). Streams and creeks in the project area may provide habitat suitable for Klamath River lamprey. Rivers and streams in the project area would not be targeted for treatment. Further, pursuant to SPR HYD-4, WLPZs would be implemented adjacent to streams in the project area, which would limit the types of treatments that would occur adjacent to streams (i.e., mechanical treatments). Because no in-water work would occur and indirect impacts on streams would be avoided through implementation of SPRs, project implementation would not result in impacts on special-status fish species.
Lost River sucker *Deltistes luxatus*	FE	SE FP	—	Native to the Lost River system in California and Oregon. Primarily a lake species found in fairly deep water. Adults run up tributary streams to spawn in the spring.	*Not expected to occur*. The project area is outside of the documented range of Lost River sucker. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Lower Klamath marbled sculpin *Cottus klamathensis polyporus*	—	SSC	—	Common in the Klamath River drainage from Iron Gate Dam downstream to the mouth of the Trinity River. Found in water with summer temperatures of 15–20 degrees C, in coarse substrates (cobble and gravel) where water velocities ranged from slow to swift, in streams with widths greater than approximately 65 feet (20 m).	*May occur*. The range of lower Klamath marbled sculpin includes most of the project area including the Klamath River and tributary streams to the Klamath River. This species has been documented in the Klamath River near Orleans, between Somes Bar and Happy Camp, and Seiad Valley (CNDDB 2022). Streams and segments of the Klamath River in the project area may provide habitat suitable for this species. Rivers and streams in the project area would not be targeted for treatment. Further, pursuant to SPR HYD-4, WLPZs would be implemented adjacent to streams in the project area, which would limit the types of treatments that would occur adjacent to streams (i.e., mechanical treatments). Because no in-water work would occur and indirect impacts on streams would be avoided through implementation of SPRs, project implementation would not result in impacts on special-status fish species.
Shortnose sucker *Chasmistes brevirostris*	FE	SE FP	—	Native to the Klamath and Lost River systems in California and Oregon. Spend most of year in open waters of large lakes. They feed on plankton. Spawn in tributary streams.	*Not expected to occur*. The project area is outside of the documented range of shortnose sucker. Project implementation would not result in impacts on this species.
Summer-run steelhead trout *Oncorhynchus mykiss irideus* pop. 36	—	SC SSC	—	Northern California coastal streams south to Middle Fork Eel River. Cool, swift, shallow water and clean loose gravel for spawning, and suitably large pools in which to spend the summer.	*May occur*. The range of summer-run steelhead trout includes the segments of the Klamath River and large tributary streams in the project area. This species has been documented in streams in the project area, including Wooley Creek, Dillon Creek, Clear Creek, Elk Creek, and Indian Creek (CNDDB 2022). Streams and segments of the Klamath River in the project area may provide habitat suitable for this species. Rivers and streams in the project area would not be targeted for treatment. Further, pursuant to SPR HYD-4, WLPZs would be implemented adjacent to streams in the project area, which would limit the types of treatments that would occur adjacent to streams (i.e., mechanical treatments). Because no in-water work would occur and indirect impacts on streams would be avoided through implementation of SPRs, project implementation would not result in impacts on special-status fish species.
Invertebrates					
Conservancy fairy shrimp *Branchinecta conservatio*	FE	—	—	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	*Not expected to occur*. The project area is outside of the documented range of Conservancy fairy shrimp. Project implementation would not result in impacts on this species.
Crotch bumble bee *Bombus crotchii*	—	SC	—	Found primarily in California: Mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	*Not expected to occur*. While the project area is likely within the historic range of Crotch bumble bee, the current range of this species does not include the Klamath Mountains region. Project implementation would not result in impacts on this species.

Franklin's bumble bee *Bombus franklini*	FE	SC	—	The range of Franklin's bumble bee is restricted to southern Oregon and northern California, including parts of Siskiyou and Trinity counties, and including the project area (Williams et al. 2014; Xerces 2010; Xerces 2018). This species has precipitously declined since 1998. Habitat includes open grassy coastal prairies and meadows. Nests underground. Requires suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	*May occur*. The project area is within the current range of Franklin's bumble bee. While this species has not been detected in California since 1998, there are several documented occurrences of Franklin's bumble bee in the project area from a 1997 survey effort in the Marble Mountain Wilderness (CNDDB 2022). Since 1998, there have been at least three years of negative survey results since the last known effort (Code and Haney 2006; USFWS 2018; Xerces 2010; Xerces 2018). Based on all of these factors, it is unlikely that Franklin's bumble bees occur in the project area. However, Xerces Society for Invertebrate Conservation has developed a species distribution model using known occurrence data and environmental factors (e.g., temperature, precipitation, elevation, soils) to predict the probability of occurrence of the species throughout its range (Xerces Society 2021). This species distribution model identified potential occurrence locations near the Marble Mountain Wilderness Area, and east of Happy Camp, including the Seiad Valley area (Xerces Society 2021). Additionally, the project area contains floral resources that may provide foraging opportunities for Franklin's bumble bees, as well as overwintering and breeding habitat. Recently, USFWS has identified high priority zones for Franklin's bumble bee based on past observations and habitat conditions surrounding those detection points, potential habitat suitability, and the presence of significant floral resources. Currently, nearly all of the project area is located outside the high priority zones identified by USFWS; however, one location in the southernmost portion of the project area overlaps with a high priority zone (Jordan, pers. comm., 2023). Therefore, absence of this species in the project area cannot be determined with certainty. Implementation of treatment activities could result in direct loss of Franklin's bumble bees, if present, or loss of bumble bee habitat. In areas identified by USFWS as high priority zones for Franklin's bumble bee, a limited operating period for mechanical treatment or prescribed burning in meadows from May 15 to September 30 (i.e., the flight/colony/nesting season for the species) will be implemented. If the limited operating period for Franklin's bumble bee is determined to be infeasible for certain treatments and meadow sites within USFWS-defined high priority zones while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, then SPR BIO-10 will be implemented to determine presence or absence of Franklin's bumble bee through surveys, in coordination with the USFWS Yreka office, and confirm applicability of the limited operating period based on presence or absence of the species. Further, as required under Mitigation Measures BIO-2a and BIO-2g, measures to minimize impacts on special-status bumble bees and bumble bee habitat would be implemented if applicable. If full implementation of the limited operating period, focused surveys under SPR BIO-10, and applicable measures under Mitigation Measures BIO-2a and BIO-2g are not feasible, potential impacts would remain significant under CEQA, and the

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
					project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA and ESA for Franklin's bumble bee.
Monarch *Danaus plexippus*	FC	—	—	Monarch butterfly habitat requirements include host plants for larvae; adult nectar sources; and sites for roosting, thermoregulation, mating, hibernation, and predator escape. Additionally, monarch butterfly requires conditions and resources for initiating and completing migration both to and from winter roosting areas. Along their migration routes and on their summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (*Asclepias* spp.) within the family Apocynaceae upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators. In the Western United States, annual migration patterns for monarch butterflies are related to areas where milkweed grows. Abundance of adult monarchs is driven by annual precipitation that supports late-season milkweeds suitable for caterpillars, and by suitable temperature regimes that allow for completion of the monarch life cycle. During the foraging and breeding season, monarchs are typically found in prairies, meadows, grasslands, and along roadsides (NPS 2017). Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	*May occur*. The project area is outside of the overwintering range of monarch butterfly. However, the project area contains grassland and open woodland habitats with floral resources and likely contains milkweed plants; thus, monarch may forage or breed on the project area. Implementation of treatment activities could result in temporary removal of floral resources, including monarch host plants (i.e., milkweed), or direct mortality of monarch butterflies or larvae. Prior to implementation of treatment activities within habitats suitable for milkweed (i.e., grassland, meadows, riparian habitat, wetlands), focused surveys for monarch butterflies would be conducted by a qualified RPF or biologist or the species would be assumed to be present (pursuant to SPR BIO-10). If focused surveys are conducted and monarchs are not detected, then further mitigation for the species would not be required. If monarchs are detected during focused surveys, or are assumed to be present, then Mitigation Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e, several measures will be implemented to reduce the likelihood of mortality, injury, or disturbance to monarchs and to maintain habitat function. These measures include retention of host plants (i.e., milkweed) and conducting treatments in a patchy pattern to retain floral resources and provide refuge for butterflies.
Shasta crayfish *Pacifastacus fortis*	FE	SE	—	Found only in the Fall and Hat Creek sub-drainages of the Pit River system. Inhabits cool, clear water with low gradient and temp variability; substrate is volcanic rubble on sand/gravel; little veg.	*Not expected to occur*. The project area is outside of the documented range of Shasta crayfish. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Suckley's cuckoo bumble bee *Bombus suckleyi*	—	SC	—	Pacific coast from Alaska to far northern California, east to Nebraska. In California, this species has a very limited distribution, occurring only in the Klamath Mountain region in the northern part of the state. An inquiline in the colonies of other bumblebees. Adult food plant genera include *Aster*, *Centaurea*, *Cirsium*, *Trifolium, Chrysothamnus*, *Helichrysum*.	*May occur*. The project area is within the current range of Suckley's cuckoo bumble bee. The nearest documented occurrences of this species are near Orleans, and near Granite Creek, approximately 1.5 miles north of the nearest treatment area (CNDDB 2022). The occurrence near Granite Creek was documented in 2008, and is considered a modern observation of the species. The project area contains floral resources that may provide foraging opportunities for Suckley's cuckoo bumble bees, as well as overwintering and breeding habitat. Implementation of treatment activities could result in direct loss of Suckley's cuckoo bumble bees, if present, or disturbance or loss of bumble bee habitat. Prior to implementation of mechanical treatments or prescribed burning in meadows, a limited operating period prohibiting these activities during the bumble bee flight season (May 15–August 31) would be implemented, if feasible. If the limited operating period is determined to be infeasible for certain treatments and meadow sites while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, MKWC may consult with CDFW on a site- or treatment-specific basis to further evaluate whether the limited operating period would be required for a specific meadow site and treatment prescription. If the limited operating period is determined to be required for meadows occupied or potentially occupied by Suckley's cuckoo bumble bee, MKWC will either: 1) initially implement the limited operating period without further review, or 2) implement SPR BIO-10, which requires surveys to determine presence or absence and confirm the applicability of required protection measures (e.g., the limited operating period) based on presence or absence of the species. Further, as required under Mitigation Measures BIO-2a and BIO-2g, measures to minimize impacts on special-status bumble bees and bumble bee habitat would be implemented if applicable. If full implementation of the limited operating period, focused surveys under SPR BIO-10, and applicable measures under Mitigation Measures BIO-2a and BIO-2g are not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA for Suckley's cuckoo bumble bee.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	—	—	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	*Not expected to occur*. Habitat potentially suitable for vernal pool fairy shrimp (i.e., vernal pools in grassland complex, basalt-flow depression pools) is not present in the project area. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	—	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	*Not expected to occur*. The project area is outside of the documented range of vernal pool tadpole shrimp. Project implementation would not result in impacts on this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Western bumble bee *Bombus occidentalis*	—	SC	—	Once common throughout much of its range, in California, this species is currently largely restricted to high elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	*May occur*. There are several historic (i.e., 1958, 1964, 1968, 1969) occurrences of western bumble bee in the project area, including near Somes Bar, Orleans, the North and South Fork Salmon River, Clear Creek, and Marble Mountain Wilderness. The project area contains floral resources that may provide foraging opportunities for western bumble bees, as well as overwintering and breeding habitat. Since 1998, there have been multiple survey efforts for Franklin's bumble bee, as described above, and there have been at least three years of negative survey results since the last known effort (Code and Haney 2006; USFWS 2018; Xerces 2010; Xerces 2018). There have been no recent detections of western bumble bee in the vicinity of the project area, and it is likely that this species would have been detected, if present, and documented during surveys for Franklin's bumble bee. Based on all of these factors, it is unlikely that western bumble bees occur in the project area. However, the project area contains floral resources that may provide foraging opportunities for western bumble bees, as well as overwintering and breeding habitat. Therefore, absence of this species in the project area cannot be determined with certainty. Implementation of treatment activities could result in direct loss of western bumble bees, if present, or loss of bumble bee habitat. Prior to implementation of mechanical treatments or prescribed burning in meadows, a limited operating period prohibiting these activities during the bumble bee flight season (May 15–August 31) would be implemented, if feasible. If the limited operating period is determined to be infeasible for certain treatments and meadow sites while meeting priority meadow restoration objectives, which may include prescribed burning during summer to result in desired vegetation response and to maximize ecological benefits, MKWC may consult with CDFW on a site- or treatment-specific basis to further evaluate whether the limited operating period would be required for a specific meadow site and treatment prescription. If the limited operating period is determined to be required for meadows occupied or potentially occupied by western bumble bee, MKWC will either: 1) initially implement the limited operating period without further review, or 2) implement SPR BIO-10, which requires surveys to determine presence or absence and confirm the applicability of required protection measures (e.g., the limited operating period) based on presence or absence of the species. Further, as required under Mitigation Measures BIO-2a and BIO-2g, measures to minimize impacts on special-status bumble bees and bumble bee habitat would be implemented if applicable. If full implementation of the limited operating period, focused surveys under SPR BIO-10, and applicable measures under Mitigation Measures BIO-2a and BIO-2g are not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA for western bumble bee.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Mammals					
American badger *Taxidea taxus*	—	SCC	—	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*May occur*. The range of American badger includes the entire project area. While there are no documented occurrences of American badger in the project area (CNDDB 2022), habitat potentially suitable for the species (e.g., grassland, open woodlands, shrubs) is present in the project area. Manual treatments would not disturb or remove American badger dens, because these treatments would typically occur within habitats where American badger dens are unlikely to occur (i.e., forest habitat) and because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed would be very low. However, prescribed burning and mechanical treatments could result in direct loss of active dens and potential loss of young. Prior to implementation of prescribed burning and mechanical treatments within or adjacent to grassland, meadow, or open woodland habitats, focused surveys for American badger dens would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If American badger dens are detected, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer would be established around the den, the size of which would be determined by the qualified RPF or biologist and no treatment activities would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist.
California wolverine *Gulo gulo*	—	ST FP	—	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats. Needs water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances.	*Not expected to occur*. The project area is within the historic range of California wolverine and there are several documented occurrences of the species within or in the vicinity of the project area from the 1960s, 1970s, and 1980s (CNDDB 2022). Wolverine no longer occupies much of its historic range, and was thought to be extinct from California until a single wolverine was detected in Nevada County, approximately 175 miles southeast of the project area (CNDDB 2022). There have been no documented occurrences of wolverine in Siskiyou County since the 1980s. Project implementation would not affect this species.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Fisher - West Coast DPS *Pekania pennanti*	—	SSC	—	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	*May occur*. The fisher range includes the entire project area. There are many documented occurrences of fisher in the project area including near Orleans, Somes Bar, and Forks of Salmon (CNDDB 2022). Forest habitat in the project area with features preferred by this species (e.g., large trees, mature forest) may provide habitat suitable for fisher. Den habitat optimal for fisher (i.e., large trees and snags with cavities) would not be targeted for treatment. However, downed woody debris that may also provide den habitat would be targeted for treatment. Outside of the breeding season, fishers would likely flee due to the presence of equipment, vehicles, or personnel, which would reduce the risk of their injury or mortality. Manual treatments would not adversely affect fisher dens, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently destroyed would be very low. However, prescribed burning and mechanical treatments conducted during the fisher maternity season (i.e., the period during which young would be present in a den, approximately March 1–June 30) and within forest habitats suitable for fisher, could result in destruction of active dens in downed woody debris piles, or disturbance to active dens potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Prior to implementation of prescribed burning and mechanical treatments during the fisher maternity season (March 1–June 30), focused surveys for fisher using trail cameras, track plates, and other non-invasive survey methods would be conducted (pursuant to SPR BIO-10). If fishers are detected during focused surveys, then additional surveys by a qualified RPF or biologist would be required to determine whether an active fisher den is present within a treatment area. If an active den is identified in a treatment area, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer would be established around the den, the size of which would be determined by the qualified RPF or biologist and no treatment activities would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Gray wolf *Canis lupus*	FD	SE	—	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact. Wolf pups are born in a natal den, which is typically a hole in the ground, a rock crevice, a hollow log, bases of hollow trees, an overturned stump, or other quiet location (American Society of Mammalogists 1974; Wisconsin Department of Natural Resources 2016). Gray wolf pups are born altricial (i.e., blind, helpless) and do not open their eyes for approximately two weeks. After approximately eight weeks, the pups are moved to a different location called a "rendezvous site." Rendezvous sites, which are usually within 1 mile of a den site, are typically open areas of grass or sedge adjacent to wetlands, and can be characterized by extensive matted vegetation, numerous trails, and beds usually at the forest edge (Wisconsin Department of Natural Resources 2016). Rendezvous sites are typically used from mid-May to mid-October, and wolf packs may use multiple rendezvous sites within their home ranges (Wisconsin Department of Natural Resources 2016).	*May occur*. The project area is within the historic range of gray wolf; however, no gray wolf individuals or packs have been documented in the project area and the nearest documented pack is approximately 37 miles east of the project area near Mt. Shasta (CDFW 2022). While gray wolves do not currently occupy the project area, it is possible that individual, uncollared gray wolves could disperse through the project area occasionally. It is also possible that additional packs could establish home ranges within or overlapping the project area during the life of the proposed project. Most of the project area does not contain habitat suitable for gray wolves because individual treatment areas are located primarily in areas with existing human disturbance (e.g., homes, roads, highways, recreational facilities). However, some portions of the project area are relatively remote and may provide habitat suitable for gray wolves. Treatment activities, including manual treatments, mechanical treatments, and prescribed burning could result in loss or disturbance of active natal dens and potential loss of helpless young if present in treatment areas. While manual treatments would be less impactful than mechanical treatments because heavy equipment would not be used, these activities would include the use of loud hand-operated power tools (e.g., chainsaws) and presence of personnel or vehicles, which could result in disturbance to nearby natal dens or rendezvous sites, and potential abandonment of these sites. Prior to implementing treatment activities in habitat suitable for gray wolves (as determined by a qualified RPF or biologist), the project proponent would contact CDFW to obtain general information about documented gray wolf activity within a treatment area. If information provided from CDFW indicates current or prior gray wolf activity within a treatment area (e.g., occurrences, overlapping home range), then treatment activities will not be initiated in the treatment area until CDFW has provided further guidance, and Mitigation Measure BIO-2a would be implemented. Additional surveys may be required to determine whether an active gray wolf den or rendezvous site is present in or adjacent to the treatment area. Pursuant to Mitigation Measure BIO-2a, a no-disturbance buffer of at least one mile will be established around any identified gray wolf dens or rendezvous sites and no treatment activities that create loud and continuous noise will be implemented within the no-disturbance buffer through June 30 for a natal den or through August 31 for a rendezvous site.

Humboldt marten *Martes caurina humboldtensis*	FT	SE SSC	—	Typically associated with late-successional coniferous forests; prefers forests with low, overhead cover. Some studies have shown that old-growth forest structure characteristics are not required by this species, and have found associations with dense ericaceous shrub cover (e.g., salal [*Gaultheria shallon*]) in the understory, mast producing trees like tanoak, and high proportion of pine species (Moriarty et al. 2021).	*May occur*. Most of the project area is located outside the current range and distribution of Humboldt marten. The current range of Humboldt marten includes the western portion of the project area, in the vicinity of SR 96 from approximately Happy Camp to the west. Humboldt marten has been detected in the vicinity of the project area south of Happy Camp near Elk Creek, near North Fork Salmon River, and more extensively west of SR 96 (CNDDB 2022). Forest habitat in the project area with large trees suitable for denning and resting may provide habitat suitable for Humboldt marten. For this analysis, suitable habitat is defined as denning, resting, and foraging habitat, which corresponds with USFWS's nomenclature and definition of this habitat category. USFWS has described the specific physical or biological features (PBFs) that define breeding, denning, resting, and foraging habitat, referred to as "PBF 1" (USFWS 2021). Based on the Six Rivers National Forest habitat suitability model and GIS layer for Humboldt marten, which specifically identifies habitat modeled as PBF 1, the project area contains very little predicted denning, resting, and foraging habitat; these areas are limited primarily to small patches along the westernmost portion of the project area. Because most of the project area is located east of the current range of Humboldt marten and does not contain modeled denning, resting, or foraging habitat, the likelihood of project implementation to adversely affect Humboldt marten is considered low. Additionally, habitat structural features considered optimal for Humboldt marten denning (i.e., large trees and snags with cavities) would not be targeted for treatment. However, downed woody debris, which may provide den habitat in the western portion of the project area within the current species range, would be targeted for treatment. Outside of the breeding season, Humboldt martens could flee due to the presence of equipment, vehicles, or personnel, which would reduce the risk of their injury or mortality. Manual treatments would not result in adverse effects on marten dens, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently destroyed would be very low. However, prescribed burning and mechanical treatments conducted during the Humboldt marten maternity season (i.e., the period during which young would be present in a den, approximately March 1–June 30) and within forest habitats suitable for martens, could result in destruction of active dens in downed woody debris piles, or disturbance to active dens potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Prior to implementation of prescribed burning and mechanical treatments during the Humboldt marten maternity season (March 1–June 30), focused surveys for martens using trail cameras, track plates, and other non-invasive survey methods would be conducted (pursuant to SPR BIO-10). If Humboldt martens are detected during focused surveys, then additional surveys by a qualified RPF or biologist would be required to determine whether an active marten den is present within a treatment area. If an active den is identified in a treatment area, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
					of at least 0.25 mile would be established around the den, and no treatment activities would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist. If full implementation of Mitigation Measure BIO-2a is not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA and ESA for Humboldt marten. Approximately 2,320 acres of USFWS-proposed critical habitat for Humboldt marten is present within the project area; USFWS has not yet issued a final critical habitat designation for the species.. Critical habitat designations do not affect activities by private landowners if there is no federal nexus — that is, if no federal funding is being used to implement the project or no federal permits are required to implemented the activity.
Pallid bat *Antrozous pallidus*	—	SSC	—	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	*May occur*. The range of pallid bat includes the entire project area. While there are no documented occurrences of pallid bat in the project area (CNDDB 2022), Roost habitat (e.g., rocky areas, large trees with cavities) suitable for pallid bat is present throughout the project area. Implementation of treatment activities during the bat maternity season (April 1–August 31; Caltrans 2004) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke (e.g., prescribed burning), potentially resulting in abandonment of the roost and loss of young. Prior to implementing treatments during the bat maternity season (April 1–August 31), focused surveys for pallid bat and other special-status bats would be implemented by a qualified RPF or biologist within habitat suitable for these species (pursuant to SPR BIO-10). If special-status bat roosts are identified, Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of 250 feet would be established around active special-status bat roosts. No treatment activities would occur within this buffer until the roosts are no longer active as determined by the qualified RPF or biologist.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Ringtail *Bassariscus astutus*	—	FP	—	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Potential denning habitat includes rock outcrops, crevices, snags, large hardwoods, large conifers, and shrubs.	*May occur*. Habitat potentially suitable for ringtail denning (e.g., large trees with cavities, dense shrubs, rocky areas) is present in the project area and ringtails likely forage throughout forest, shrub, and riparian habitats in the project area. Den habitat optimal for ringtail (i.e., large trees and snags with cavities) would not be targeted for treatment. However, dense shrubs, which may provide den habitat suitable for this species, would be targeted for treatment. Outside of the breeding season, ringtails would likely flee due to the presence of equipment, vehicles, or personnel, which would reduce the risk of their injury or mortality. Manual treatments would not adversely affect ringtail maternity dens, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently destroyed would be very low. However, prescribed burning and mechanical treatments conducted during the ringtail maternity season (i.e., the period during which young would be present in a den, approximately April 15–June 30) and within habitats suitable for ringtail, could result in destruction of active dens in dense shrubs, or disturbance to active dens potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Prior to implementation of prescribed burning and mechanical treatments during the ringtail maternity season (April 15–June 30), focused surveys for ringtail using trail cameras, track plates, and other non-invasive survey methods would be conducted (pursuant to SPR BIO-10). If ringtails are detected during focused surveys, then additional surveys by a qualified RPF or biologist would be required to determine whether an active ringtail den is present within a treatment area. If an active den is identified in a treatment area, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer would be established around the den, the size of which would be determined by the qualified RPF or biologist in consultation with CDFW, and no treatment activities would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist. If the presence of ringtail within the treatment area is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a before and during implementation of mechanical treatments and prescribed burning between April 15 and June 30. Avoidance and minimization measures would include but not be limited to pre-treatment den surveys, daily sweeps of the treatment area, and biological monitoring.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Roosevelt elk *Cervus canadensis roosevelti*	—	—	—	Breed in open, brushy stands of many deciduous and conifer habitats with abundant water. Feed in riparian areas, meadows, and herbaceous and brush stages of forest habitats. Require mature stands of deciduous and conifer forest habitats. Dense brush understory is used for escape and cover. Herds are sedentary within an annual home range, or migrate altitudinally. During the rut (August–November), bulls defend movable breeding territories consisting of cow harems.	*May occur*. The project area is within the documented range of Roosevelt elk, which includes Humboldt, Del Norte, Trinity, and western Siskiyou counties. Roosevelt elk is not considered a special-status species, but is identified as a sensitive resource in the Humboldt County General Plan. Treatment activities would not result in substantial degradation of breeding or foraging habitat for Roosevelt elk and may improve habitat for the species by thinning dense forests. Further, Roosevelt elk is not a special-status species and is not considered rare in the project region. Therefore, substantial adverse effects on Roosevelt elk are unlikely to occur, and mitigation would not be required.
Sierra Nevada red fox – southern Cascades DPS *Vulpes vulpes necator* pop. 1	—	ST	—	Use multiple habitat types in the alpine and subalpine zones including high-elevation conifer dominated by whitebark pine and mountain hemlock, as well as meadows and fell-fields. May descend in winter to below subalpine zone consisting of red and white fir; as low as 1,400 meters (4,600 feet).	*Not expected to occur*. The project area is within the historic range of Sierra Nevada red fox; however, the current range of this species is limited to two populations near Lassen Peak and Sonora Pass. Project implementation would not result in impacts on this species.
Sonoma tree vole *Arborimus pomo*	—	SSC	—	North coast fog belt from Oregon border to Somona County. In Douglas fir, redwood, and montane hardwood-conifer forests. Feeds almost exclusively on Douglas fir needles. Will occasionally take needles of grand fir, hemlock, or spruce. The species nests most often in the canopy of live, large-diameter Douglas fir trees (i.e., greater than approximately 20 inches dbh) (Dunk and Hawley 2009).	*May occur*. The range of Sonoma tree vole includes only the portion of the project area surrounding Orleans. There are no documented occurrences of Sonoma tree vole in the project area; however, forest habitat in the vicinity of Orleans dominated by Douglas fir may provide habitat suitable for this species. Nesting habitat optimal for Sonoma tree voles (i.e., large, old growth trees) would not be targeted for treatment. Therefore, adverse effects on Sonoma tree voles are unlikely to occur and mitigation would not be required.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period (i.e., for special-status plants)	Potential for Occurrence/Potential Impact
Townsend's big-eared bat *Corynorhinus townsendii*	—	SSC	—	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	*May occur*. The range of Townsend's big-eared bat includes the entire project area. Townsend's big-eared bats have been documented roosting under bridges over the Klamath and Salmon rivers as well as within mines in the project area, including documented maternity roosts (CNDDB 2022). Roost habitat potentially suitable for Townsend's big-eared bat, including mines, caves, abandoned buildings, bridges, and culverts is present throughout the project area. Implementation of treatment activities during the bat maternity season (April 1–August 31; Caltrans 2004) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke (e.g., prescribed burning) potentially resulting in abandonment of the roost and loss of young. Prior to implementing treatments during the bat maternity season (April 1–August 31), focused surveys for Townsend's big-eared bat and other special-status bats would be implemented by a qualified RPF or biologist within habitat suitable for these species (pursuant to SPR BIO-10). If special-status bat roosts are identified, Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of 250 feet would be established around active special-status bat roosts. No treatment activities would occur within this buffer until the roosts are no longer active as determined by the qualified RPF or biologist.
Western red bat *Lasiurus blossevillii*	—	SSC	—	Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	*Not expected to occur*. The project area is outside of the documented range of western red bat. Project implementation would not result in impacts on this species.

Note: CNDDB = California Natural Diversity Database; DPS= Distinct Population Segment; CRPR = California Rare Plant Rank

[1] Legal Status Definitions

Federal:

FE Endangered (legally protected)
FT Threatened (legally protected)
FC Candidate for Listing under ESA
FP Proposed for Listing under ESA

State:

SE Endangered (legally protected)
ST Threatened (legally protected)
SC Candidate for Listing under CESA (legally protected)
FP Fully protected (legally protected)
SR Rare (legally protected by NPPA)
SSC Species of special concern (no formal protection other than CEQA consideration)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks

0.1-Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

0.2-Moderately threatened in California (20-80 percent 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)

Sources: American Society of Mammalogists 1974; Calflora 2022; Caltrans 2004; CCH2 2022; CDFW 2018b; CDFW 2022; CNDDB 2022; CNPS 2022; Dunk and Hawley 2009; Levine et. al 2008; Moriarty et al. 2021; NatureServe 2022; NPS 2017; USFWS 2012; USFWS 2018; US Forest Service 2006; Williams et al. 2014; Wisconsin Department of Natural Resources 2016; Xerces Society 2010; Xerces Society 2018; Xerces Society 2021.

SENSITIVE NATURAL COMMUNITIES

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, several species associated with sensitive natural communities were observed, including California bay (*Umbellularia californica*), bigleaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), tanoak (*Notholithocarpus densiflorus*), California buckeye (*Aesculus californica*), Oregon white oak (*Quercus garryana*), and cottonwood (*Populus* spp.). While all dominant species associated with sensitive natural communities included in Table B-3 were not observed during the reconnaissance-level survey, these communities may be present. Not all parts of project area were observed during the reconnaissance survey, and the survey intensity was not sufficient to identify vegetation to alliance level, so additional sensitive natural communities may be present (including those identified in Table B-3). Implementation of SPR BIO-3 is required to map sensitive natural communities prior to treatment.

Based on review of species ranges, occurrence data, vegetation mapping, aerial photos, habitat present, and reconnaissance-level survey, there are 41 sensitive natural communities with potential to occur in the CWHR habitat types present in the project area, which include Baker cypress stand, Port Orford cedar forest (*Chamaecyparis lawsoniana*), Alaska yellow-cedar stand (*Callitropsis nootkatensis*), Pacific silver fir forest (*Abies amabilis*), California buckeye grove (*Aesculus californica*), mountain alder thicket (*Alnus incana*), and resin birch thicket (*Betula glandulosa*). As required by Mitigation Measure BIO-3a, prescribed burning will be the primary treatment activity in sensitive natural communities that are fire dependent (e.g., chaparral alliances characterized by fire-stimulated, obligate seeders, such as hairy leaf ceanothus), to the extent feasible and appropriate based on the fire regime attributes as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009). If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement Mitigation Measure BIO-3b.

Table B-3 Sensitive Natural Communities Documented or with Potential to Occur in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Baker cypress stand	S2.2	Closed-Cone Pine-Cypress
Beach pine forest and woodland	S3	Closed-Cone Pine-Cypress
McNab cypress woodland	S3	Closed-Cone Pine-Cypress
California bay forest	S3	Coastal Oak Woodland
Bigleaf maple forest	S3	Douglas Fir; Montane Hardwood; Montane Hardwood-Conifer
Port Orford cedar forest	S3.1	Douglas Fir
Douglas fir – incense cedar forest	S3	Douglas Fir
Douglas fir – tanoak forest	S3	Douglas Fir
Western hemlock forest	S2	Douglas Fir
Pacific silver fir forest	S1	Klamath Mixed Conifer
Subalpine fir forest	S2	Klamath Mixed Conifer
Alaska yellow-cedar stand	S1	Klamath Mixed Conifer
Brewer spruce forest	S2	Klamath Mixed Conifer
Engelmann spruce forest	S2	Klamath Mixed Conifer; Subalpine Conifer
California buckeye grove	S3	Montane Hardwood
Tanoak forest	S3.2	Montane Hardwood
Oregon white oak woodland	S3	Montane Hardwood
Bigleaf maple forest and woodland	S3	Montane Hardwood; Montane Hardwood-Conifer

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Rocky Mountain maple thicket	S3?	Montane Riparian
Mountain alder thicket	S3	Montane Riparian
Sitka alder thicket	S3?	Montane Riparian
Resin birch thicket	S2?	Montane Riparian
Water birch thicket	S3	Montane Riparian
Torrent sedge patch	S3	Montane Riparian; Valley Foothill Riparian
Fremont cottonwood forest	S3.2	Montane Riparian; Valley Foothill Riparian
Black cottonwood forest	S3	Montane Riparian; Valley Foothill Riparian
Jepson willow thicket	S3	Montane Riparian
Wild grape shrubland	S3	Montane Riparian; Valley Foothill Riparian
Red fir – white fir forest	S3	Red Fir; White Fir
Foxtail pine woodland	S3	Subalpine Conifer
Button willow thicket	S2	Valley Foothill Riparian
Hairy leaf ceanothus chaparral	S3	Mixed Chaparral
Hoary, common, and Stanford manzanita chaparral	S3	Mixed Chaparral
Shrub tanoak chaparral	S3	Mixed Chaparral
Bush chinquapin chaparral	S3.3	Montane Chaparral
Sadler oak or deer oak brush fields	S3	Montane Chaparral
Water foxtail meadow	S3?	Perennial Grassland
Small-fruited sedge meadow	S2?	Perennial Grassland
California oat grass prairie	S3	Perennial Grassland
Idaho fescue grassland	S3	Perennial Grassland
Ashy ryegrass – creeping ryegrass turf	S3	Perennial Grassland

[1] These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable)

[2] Older ranks, which need to be updated by CDFW, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats. A question mark (?) denotes an inexact numeric rank because there are insufficient samples over the full expected range of the type, but existing information points to this rank.

Source: Sawyer et al. 2009, Compiled by Ascent Environmental in 2022.

SENSITIVE HABITATS

Oak Woodland

Oregon white oak woodland, coastal oak woodland, and blue oak woodland have been identified (see Table B-1 and B-3) as potentially present in the project area. During the reconnaissance-level survey conducted on February 24–25, 2023, several oak species were observed, including Oregon white oak (*Quercus garryana*), black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), and canyon live oak (*Quercus chrysolepis*). Mitigation Measure BIO-3a requires treatments be designed to replicate the fire regime attributes for the affected oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fire line intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009). If treatment activities within identified oak woodlands cannot be avoided, then Mitigation Measure BIO-3a would apply in these areas. After implementation of Mitigation Measure BIO-BIO-3a, if impacts to oak woodland habitat remain significant under CEQA, then Mitigation Measure BIO-3b would apply.

Riparian Habitat

The project area contains numerous perennial (Class I) (e.g. Klamath River and Salmon River), intermittent (Class II), and ephemeral (Class III) streams. Riparian habitat is present adjacent to segments of some Class I streams in the project area and is generally present along Class II streams. WLPZs ranging from 50 to 100 feet will be established adjacent to all Class I and II streams within the project area. While these measures would reduce potential impacts on riparian habitat, the extent of riparian habitat within the project area has not been mapped and riparian habitat may be present outside of the areas incorporated within WLPZs. Additionally, the WLPZ is not a no-disturbance area and up to 25 percent vegetation removal is allowed in WLPZs. SPR BIO-4 requires that 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation mapped during surveys conducted pursuant to SPR BIO-3 be retained, that treatments are limited to uncharacteristic fuel loads, and that large, native riparian hardwoods be retained. After implementation of SPR BIO-4, if impacts to riparian habitat remain significant under CEQA, then Mitigation Measures BIO-3c would apply in these areas.

Chaparral

As described in Table B-1, chaparral habitat (i.e., montane chaparral and mixed chaparral) is present in the project area. The project area contains approximately 1,195.8 acres of chaparral. Chaparral habitat observed in the project area during the reconnaissance-level survey included manzanita (e.g., whiteleaf manzanita [*Arctostaphylos viscida*], hoary manzanita [*Arctostaphylos canescens*], common manzanita [*Arctostaphylos manzanita*]), buckbrush (*Ceanothus cuneatus*), toyon (*Heteromeles arbutifolia*), and coyote brush (*Baccharis pilularis*) with small, scrubby oaks interspersed (e.g., interior live oak, canyon live oak, Oregon white oak). Some areas of chaparral habitat included or were dominated by nonnative broom species (e.g., scotch broom [*Cytisus scoparius*], French broom [*Genista monspessulana*]). Some portions of the project area where chaparral habitat was observed were not mapped as chaparral in the CAL FIRE FRAP vegetation mapping. Some portions of the project area mapped as chapparal in the CAL FIRE FRAP vegetation mapping contained conifer sapling or pole stands and did not contain any chaparral species (i.e., the vegetation mapping was inaccurate). It is likely that many areas mapped as chaparral in the project area do not contain chaparral habitat; however, it is also likely that some of the chaparral habitat in the project area has not been mapped accurately.

All chaparral habitats are subject to the provisions of SB 1260 (Statutes of 2019), which prohibit type conversion in chaparral and coastal sage scrub communities. SPR BIO-5 requires that treatments be designed to avoid of the environmental effects of type conversion within chaparral habitat by maintaining a minimum percent cover of mature shrubs, and maintaining habitat function be maintained. Specifically, for ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral vegetation types, a minimum of 35 percent of existing shrubs and associate native vegetation be retained at existing densities, and that a range of middle to old age classes be retained.

Wetlands

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, multiple types of aquatic habitat were observed, including the Klamath and Salmon rivers, perennial and intermittent streams, ponds, and wetlands. CAL FIRE's FRAP vegetation data for the project area includes approximately 100 acres of lacustrine habitat (i.e., reservoirs, lakes, ponds), 573 acres of riverine habitat, and 49 acres of wet meadow habitat (Table B-1). The National Wetlands Inventory (NWI) classifies the project area as having approximately 52 acres of freshwater emergent wetland, 320 acres of freshwater forested/shrub wetland, 17 acres freshwater pond, 41 acres lake, and 1,171 acres of riverine habitat. Wetlands mapped by NWI as fresh emergent wetlands likely include wet meadows (USFWS 2022b). Aquatic habitats are mapped at a coarse scale in both the FRAP and NWI databases and without field verification.

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, wet meadows, springs, and seeps. Many types of aquatic habitats, including fresh emergent wetlands, are not associated with lakes

or streams, and would not be protected by implementation of SPR HYD-4 WLPZs. Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, seeps, and other wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status wildlife (e.g., Cascades frog, foothill yellow-legged frog, Pacific tailed frog, western pond turtle; see Impact BIO-1 and Impact BIO-2).

REFERENCES

American Society of Mammologists. 1974. *Mammalian Species*. Canis Lupus. Available: https://academic.oup.com/mspecies/article/doi/10.2307/3503924/2600650. Accessed April 28, 2022.

California Department of Fish and Wildlife. 2018a. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline. Accessed December 1, 2022.

———. 2018b. *Considerations for Conserving the Foothill Yellow-Legged Frog*. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157562&inline. Accessed December 1, 2022.

———. 2022. California's Known Wolves – Past and Present. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=201829&inline. Accessed November 27, 2022.

California Department of Transportation. 2004 (December). *California Bat Mitigation Techniques, Solutions, and Effectiveness*. Prepared by H. T. Harvey & Associates, Sacramento, CA.

California Native Plant Society. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). Available: http://www.rareplants.cnps.org. Retrieved September 2, 2022.

California Natural Diversity Database. 2022. Results of electronic records search. Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Retrieved September 1, 2022.

CAL FIRE. *See* California Department of Forestry and Fire Protection.

Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. 2022. The Calflora Database. Berkeley, CA. Available: https://www.calflora.org/. Retrieved October 2022.

Calflora. *See* Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria.

Caltrans. *See* California Department of Transportation.

CCH2. *See* Consortium of California Herbaria 2.

CDFW. *See* California Department of Fish and Wildlife.

CNDDB. *See* California Natural Diversity Database.

CNPS. *See* California Native Plant Society.

Code, B. H. and S. L Haney. 2006. *Franklin's Bumble Bee Inventory in the Southern Cascades of Oregon*. Prepared for the Bureau of Land Management, Medford, OR.

Consortium of California Herbaria 2. 2022. Data provided by the participants of the Consortium of California Herbaria. Available: ucjeps.berkeley.edu/consortium/. Accessed May 2022.

Dunk, J. R. and J. J. V. G. Hawley. 2009. "Red-Tree Vole Habitat Suitability Modeling: Implications for Conservation and Management." *Forest Ecology and Management* 258: 626-634.

Humboldt County. 2017. *Humboldt County General Plan*. Available: https://humboldtgov.org/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF. Accessed December 1, 2022.

Jordan, Christine. Wildlife Biologist. U.S. Fish and Wildlife Service, Yreka, CA. May 9, 2023—Telephone meeting and agency consultation with Ascent Environmental, Mid Klamath Watershed Council, and CAL FIRE for the Western Klamath Landscape Fuels Reduction and Forest Health Project.

Levine, L. M., McEachern, A. K., and C. Cowan. 2008. "Rainfall Effects on Rare Annual Plants." *Journal of Ecology* 96 (4): 794–806.

Moriarty, K. M., J. Thompson, M. Delheimer, B. R. Barry, M. Linnell, T. Levi, K. Hamm, D. Early, H. Gamblin, M. S. Gunther, J. Ellison, J. S. Prevey, J. Hartman, and R. Davis. 2021. "Predicted Distribution of a Rare and Understudied Forest Carnivore: Humboldt Marten (*Martes caurina humboldtensis*)." *PeerJ* 10.7717/peerj.11670.

National Park Service. 2017. Pollinators – Monarch Butterfly. Available: https://www.nps.gov/articles/monarch-butterfly.htm. Accessed December 1, 2022.

NatureServe. 2022. NatureServe Online Explorer Tool. Available: https://explorer.natureserve.org/. Retrieved December 2022.

NPS. *See* National Park Service.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society, Sacramento, CA. 1300 pp.

Siskiyou County. 1973. *Siskiyou County General Plan. Conservation Element*. Available: https://www.co.siskiyou.ca.us/sites/default/files/pln_gp_conservationelement.pdf. Accessed December 14, 2022.

US Forest Service. 2006. *Northern Goshawk Inventory and Monitoring Technical Guide*. Available: https://www.fs.usda.gov/research/treesearch/24986. Accessed December 1, 2022.

US Fish and Wildlife Service. 2012. *Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls*. Available: https://www.fws.gov/project/northern-spotted-owl-population-monitoring. Accessed December 1, 2022.

———. 2018. *Survey Protocols for the Rusty Patched Bumble Bee (Bombus affinis).* Available: https://ecos.fws.gov/ipac/guideline/survey/population/10383/office/32410.pdf. Accessed December 1, 2022.

———. 2021. *Designation of Critical Habitat for the Coastal Distinct Population Segment of the Pacific Marten; Proposed Rule.* Available: https://www.federalregister.gov/documents/2021/10/25/2021-22994/endangered-and-threatened-wildlife-and-plants-designation-of-critical-habitat-for-the-coastal

———. 2022a. Information for Planning and Consultation electronic records search. Available: https://ecos.fws.gov/ipac/. Retrieved September 1, 2022.

———. 2022b. *National Wetlands Inventory*. Available: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed August 2022.

USFWS. *See* US Fish and Wildlife Service.

Van Wagtendonk, J.W., N.G. Sugihara, S.L. Stephens, A.E. Thode, K.E. Shaffer, J.A. Fites-Kaufman, and J.K. Agee. 2018(June). *Fire in California's Ecosystems*. Second edition. University of California Press. Oakland, CA.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. 2014. *Bumble Bees of North America*. Princeton, NJ: Princeton University Press.

Wisconsin Department of Natural Resources. *Natural Heritage Inventory Screening Guidance for Gray Wolf.* Available: https://dnr.wi.gov/topic/EndangeredResources/documents/wolfScreeningGuidance.pdf. Accessed April 29, 2022.

Xerces Society for Invertebrate Conservation. 2010. *Petition to List Franklin's Bumble Bee* Bomubs franklini *Frison, 1921 as an Endangered Species under the U.S. Endangered Species Act.* Available: https://www.xerces.org/sites/default/files/2019-10/bombus-franklini-petition.pdf. Accessed December 1, 2022.

———. 2018. *A Petition to the State of California Fish and Game Commission to List the Crotch Bumble Bee (*Bombus crotchii*), Franklin's Bumble Bee (*Bombus franklini*), Suckley Cuckoo Bumble Bee (*Bombus suckleyi*), and*

*Western Bumble Bee (*Bombus occidentalis occidentalis*) as Endangered Under the California Endangered Species Act.* Available: https://www.xerces.org/sites/default/files/2019-10/CESA-petition-Bombus-Oct2018.pdf. Accessed December 1, 2022.

———. 2021. Franklin's Bumble Bee Species Distribution Model. Available: https://www.pnwbumblebeeatlas.org/ffbb.html. Accessed May 13, 2022.

Attachment C

Hazardous Materials

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
ENVIROSTOR

PROJECT SEARCH RESULTS

STATUS: All Statuses GO

SEARCH CRITERIA: SISKIYOU

28 RECORDS FOUND EXPORT TO EXCEL

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	AMERICAN FABRIC CARE	47720001	EVALUATION	INACTIVE - NEEDS EVALUATION	490 SOUTH BROADWAY	YREKA	96097
[REPORT]	[MAP]	BLUE LEDGE MINE	60001382	FEDERAL SUPERFUND LISTED	- ACTIVE	2 MILES SOUTH OF OREGON ON ROAD 1060	ROGUE RIVER NATIONAL FOREST	00000
[REPORT]		CHAMPION INTERNATIONAL	47240005	HISTORICAL	NO FURTHER ACTION	JUNCTION AVENUE/TUCCI AVENUE	MCCLOUD	96057
[REPORT]	[MAP]	HI-RIDGE LUMBER COMPANY	47240011	EVALUATION	REFER: RWQCB	329 S. PHILLIPE LANE	YREKA	96097
[REPORT]	[MAP]	HJERTAGER MILL	47240004	EVALUATION	REFER: OTHER AGENCY	318 WILDCAT CREEK ROAD	CALLAHAN	96014
[REPORT]	[MAP]	J H BAXTER & CO-WEED	CAD000625731	HAZ WASTE - RCRA	CLOSED	422 MILL STREET	WEED	960940000
[REPORT]	[MAP]	J H BAXTER & CO-WEED	80001301	CORRECTIVE ACTION	REFER: SMBRP	422 MILL STREET	WEED	960940000
[REPORT]	[MAP]	J H BAXTER CO	47240001	FEDERAL SUPERFUND LISTED	- CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS	422 MILL STREET	WEED	96094
[REPORT]	[MAP]	MASSIVE VOLCANIC SULFIDE MINE DISCOVERY PROJECT	60002353	EVALUATION	NO ACTION REQUIRED	NORTHERN AND CENTRAL CALIFORNIA: COUNTIES OF SISKIYOU, SHASTA, TRINITY, BUTTE, YUBA, NEVADA, PLACER, AMADOR, CALAVERAS, TUOLUMNE AND MARIPOSA	MULTIPLE	00000
[REPORT]		MCCLOUD RIVER RAILROAD CO	47400001	EVALUATION	REFER: RWQCB	JUNCTION AVENUE	MCCLOUD	96057
[REPORT]	[MAP]	MONTAGUE AUXILIARY FIELD (J09CA0875)	80000591	MILITARY EVALUATION	NO FURTHER ACTION		MONTAGUE	

	SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	MOUNT HEBRON WORK CENTER	47080001	VOLUNTARY CLEANUP	REFER: RWQCB	MOUNT HEBRON COURT ROAD	MOUNT HEBRON	96066
[REPORT] [MAP]	MOUNT SHASTA GAS DISPERSION TEST SITE (J09CA7275)	80000946	MILITARY EVALUATION	NO FURTHER ACTION		MT.SHASTA	
[REPORT] [MAP]	NOR-CAL PRODUCTS COMPANY	47240010	EVALUATION	REFER: RWQCB	1512 SOUTH OREGON STREET	YREKA	96097
[REPORT] [MAP]	OLD COUNTY YARD	60000984	EVALUATION	INACTIVE - ACTION REQUIRED	1455 SOUTH MAIN STREET	YREKA	96097
[REPORT] [MAP]	PINE MOUNTAIN LUMBER COMPANY	47240006	VOLUNTARY CLEANUP	ACTIVE	HIGHWAY 3	YREKA	96097
[REPORT] [MAP]	PONDOSA MILL	47240003	EVALUATION	INACTIVE - NEEDS EVALUATION	HWY 89 / PONDOSA ROAD	PONDOSA	96057
[REPORT] [MAP]	QUARTZ VALLEY STAMP MILL	47100001	EVALUATION	INACTIVE - NEEDS EVALUATION	11000 BLOCK QUARTZ VALLEY ROAD	GREENVIEW	96037
[REPORT]	RED PORPHYRY MINE	47100002	EVALUATION	REFER: OTHER AGENCY	TOWNSHIP 48 NORTH, RANGE 8 WEST, SECT 14	HORNBROOK	96044
[REPORT] [MAP]	ROSEBURG LUMBER MILL IN MT. SHASTA	60000458	VOLUNTARY CLEANUP	INACTIVE - ACTION REQUIRED	HIGHWAY 5 AND SOUTH MT. SHASTA BLVD. THE SITE IS IN TOWNSHIP 40 NORTH, RANGE 4 WEST, SECTION 21 AND 22	MT. SHASTA	96067
[REPORT] [MAP]	SISKIYOU BOMBING TARGET - (J09CA1072) - MMRP	80000709	MILITARY EVALUATION	NO FURTHER ACTION		MACDOEL	
[REPORT] [MAP]	SISKIYOU COUNTY AIRPORT - (J09CA0950) - IR	80000683	MILITARY EVALUATION	NO FURTHER ACTION	MONTAGUE ROAD	MONTAGUE	96064
[REPORT]	SISKIYOU PLANING MILL	47240009	HISTORICAL	REFER: OTHER AGENCY	OBERLIN ROAD	YREKA	96097
[REPORT] [MAP]	SISKIYOU POL ANNEX	80000159	MILITARY EVALUATION	NO FURTHER ACTION		MONTAGUE	
[REPORT] [MAP]	THE LANDING-OLD MILL SECTION	60002107	VOLUNTARY CLEANUP	ACTIVE	MOUNT SHASTA BOULEVARD AND MOUNTAIN VIEW DRIVE	CITY OF MOUNT SHASTA	96067
[REPORT] [MAP]	TULE LAKE POW CAMP	80000771	MILITARY EVALUATION	NO FURTHER ACTION		TULE LAKE	

	SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	WORLD CIRCUITS, INC	47360001	HISTORICAL	REFER: RWQCB	OLD HIGHWAY 99	GAZELLE	96034
[REPORT] [MAP]	YREKA GAP FILLER ANNEX (J09CA1006)	80000781	MILITARY EVALUATION	NO FURTHER ACTION		YREKA	

0.0625 seconds

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
ENVIROSTOR

PROJECT SEARCH RESULTS

STATUS: All Statuses GO

SEARCH CRITERIA: HUMBOLDT

62 RECORDS FOUND EXPORT TO EXCEL

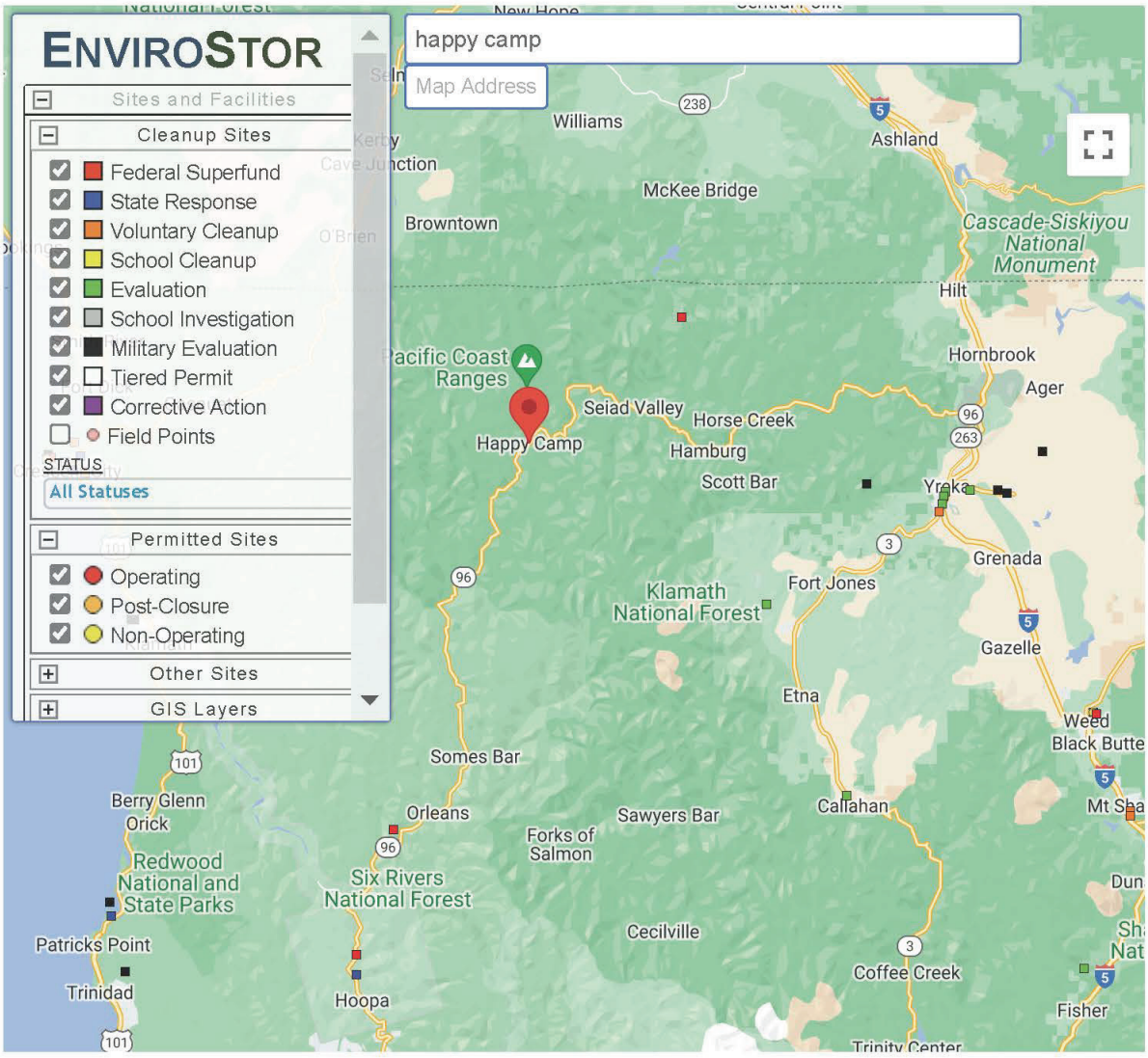
		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]		ARCATA COMMUNITY HEALTH CENTER	60002941	CALMORTGAGE	NO ACTION REQUIRED	1150 FOSTER AVENUE	ARCATA	9552
[REPORT]		BAR ALE	12070001	HISTORICAL	REFER: RWQCB	989 MILTON	FERNDALE	9553
[REPORT]		BEAVER LUMBER COMPANY OF ARCATA	12240117	HISTORICAL	REFER: RWQCB	1220 5TH STREET	ARCATA	9552
[REPORT]	[MAP]	BIG LAGOON BOMBING TARGET (IND RESERV) (J09CA0064)	80000155	STATE RESPONSE	NO FURTHER ACTION		BIG LAGOON	
[REPORT]	[MAP]	BIG LAGOON TARGET RANGE	80001175	MILITARY EVALUATION	NO FURTHER ACTION		BIG LAGOON	
[REPORT]		BOB BRITT LUMBER CO.	12240007	HISTORICAL	REFER: RWQCB	2566 MYRTLE	EUREKA	9550
[REPORT]	[MAP]	CAL-PACIFIC LUMBER COMPANY - HOOPA	12240010	STATE RESPONSE	CERTIFIED	HWY 96	HOOPA	9554
[REPORT]	[MAP]	CAPETOWN GFA Z-33A	80000517	MILITARY EVALUATION	NO FURTHER ACTION		CAPETOWN	
[REPORT]	[MAP]	CELTOR CHEMICAL WORKS	12280002	FEDERAL SUPERFUND - DELISTED	CERTIFIED	BTW NORTON FLD & TRINITY RIVER	HOOPA	9554
[REPORT]	[MAP]	CENTERVILLE BEACH NAVAL FACILITY	12360001	STATE RESPONSE	CERTIFIED	5 MILES WEST OF FERNDALE, CA	FERNDALE	9533
[REPORT]	[MAP]	COLLEGE OF THE REDWOODS RANGE COMPLEX	60001912	EVALUATION	INACTIVE - ACTION REQUIRED	7351 TOMPKINS HILL ROAD	EUREKA	9550
[REPORT]	[MAP]	COPPER BLUFF MINE (BOLIVAR MINE)	60002830	FEDERAL SUPERFUND - LISTED	REFER: EPA	OFF HWY 96 IN NORTON FLD	HOOPA	9554
[REPORT]	[MAP]	CUMMINGS ROAD LANDFILL	12490007	EVALUATION	REFER: OTHER AGENCY	END OF CUMMINGS ROAD	EUREKA	9550
[REPORT]	[MAP]	EEL RIVER SAWMILLS, MILL A	12240119	STATE RESPONSE	ACTIVE	1053 NORTHWESTERN AVE	FORTUNA	9554
[REPORT]		EUREKA COMMUNITY HEALTH CENTER	60002940	CALMORTGAGE	NO ACTION REQUIRED	2200 & 2189 TYDD STREET	EUREKA	9550

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	EUREKA EDUCATIONAL RESOURCE CENTER	60000101	SCHOOL CLEANUP	CERTIFIED	1808 SIXTH STREET	EUREKA	9550
[REPORT]	[MAP]	EUREKA HIGH SCHOOL NEW GYMNASIUM	60002844	SCHOOL EVALUATION	NO ACTION REQUIRED	1915 J STREET	EUREKA	9550
[REPORT]		EUREKA OIL AND BURNER	12420003	HISTORICAL	REFER: RWQCB	FOOT OF T STREET	EUREKA	9550
[REPORT]	[MAP]	FORMER EEL RIVER SAWMILL	60003070	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	775 NORTHWESTERN AVENUE	RIO DELL	9556
[REPORT]	[MAP]	FORMER HUMBOLDT BAY BOMBING TARGET - (J09CA7471)	60001494	MILITARY EVALUATION	NO FURTHER ACTION	3 MILES SOUTHWEST OF EUREKA	EUREKA	9550
[REPORT]	[MAP]	FORMER ROGER'S GARAGE	60000042	VOLUNTARY CLEANUP	INACTIVE - NEEDS EVALUATION	1622 OLD ARCATA ROAD	ARCATA	9552
[REPORT]		FORTUNA COMMUNITY HEALTH CENTER	60002942	CALMORTGAGE	NO ACTION REQUIRED	3750 ROHNERVILLE ROAD	FORTUNA	9554
[REPORT]	[MAP]	G&R METAL	12750001	EVALUATION	REFER: RWQCB	132 W. FIRST STREET	EUREKA	9550
[REPORT]		GEORGIA PACIFIC CORPORATION #5	12240110	HISTORICAL	REFER: RWQCB	BIG LAGOON	MCKINLEYVILLE	9552
[REPORT]	[MAP]	GZC	60002917	VOLUNTARY CLEANUP	INACTIVE - ACTION REQUIRED	1678 GLENDALE DRIVE	MCKINLEYVILLE	9551
[REPORT]	[MAP]	HALVORSON MILLS	12240121	EVALUATION	REFER: RWQCB	1415 WATERFRONT DRIVE	EUREKA	9550
[REPORT]	[MAP]	HOOPA VENEER	12240038	STATE RESPONSE	CERTIFIED	HWY 96	HOOPA	9554
[REPORT]	[MAP]	HUMBOLDT COUNTY AIRPORT	71000036	MILITARY EVALUATION	REFER: RWQCB	HIGHWAY 101	MCKINLEYVILLE	9552
[REPORT]	[MAP]	HUMBOLDT PACIFIC TRANSPORT	60000411	EVALUATION	REFER: RWQCB	1403 EELOA AVENUE	RIO DELL	9556
[REPORT]	[MAP]	HUMBOLDT PACIFIC TRANSPORTATION INC	12470001	EVALUATION	INACTIVE - NEEDS EVALUATION	1404 EEOLA AVENUE	RIO DELL	9556
[REPORT]	[MAP]	JACOBY CREEK ELEMENTARY SCHOOL EXPANSION	60002847	SCHOOL EVALUATION	NO ACTION REQUIRED	1617 OLD ARCATA ROAD	BAYSIDE	9552
[REPORT]	[MAP]	MAXIM GAS COMPANY OF EUREKA	12490004	EVALUATION	INACTIVE - NEEDS EVALUATION	210 H STREET /622 SECOND STREET	EUREKA	9550
[REPORT]	[MAP]	MCINTOSH LUMBER COMPANY, INC	12240045	EVALUATION	NO ACTION REQUIRED	501 HATCHERY ROAD	BLUE LAKE	9552

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	MCNAMARA AND PEEPE LUMBER MILL	12240115	STATE RESPONSE	ACTIVE - LAND USE RESTRICTIONS	1619 GLENDALE DRIVE	ARCATA	9552
[REPORT]	[MAP]	MCNORD LUMBER CO	12240047	VOLUNTARY CLEANUP	ACTIVE	1610 GLENDALE DRIVE	MCKINLEYVILLE	9551
[REPORT]		MORRISON & JACKSON LUMBER COMPANY	12240053	HISTORICAL	REFER: RWQCB	HIGHWAY 101	MYERS FLAT	9555
[REPORT]	[MAP]	MOUNT PIERCE RADIO RELAY ANNEX (J09CA0878)	80000558	STATE RESPONSE	NO FURTHER ACTION	5 MILES SOUTHWEST OF SCOTIA, CA, ON MONUMNET ROAD	SCOTIA	955X
[REPORT]	[MAP]	MOZZETTI LANDFILL	12240120	VOLUNTARY CLEANUP	NO ACTION REQUIRED	1053 NORTHWESTERN AVE	FORTUNA	9554
[REPORT]	[MAP]	NAAS ARCATA-BOMBING RNG (J09CA0061)	80000043	MILITARY EVALUATION	NO FURTHER ACTION		ARCATA	
[REPORT]	[MAP]	NAVAL AUXILIARY AIR STATION, ARCATA (J09CA0799)	80000564	STATE RESPONSE	REFER: RWQCB	0.67 MI NE OF HAMMOND TRUCK ROAD AND QUARRY ROAD	MCKINLEYVILLE	9557
[REPORT]		NWP RAILROAD YARD	12400001	HISTORICAL	REFER: RWQCB	BROADWAY AND THIRD STREET	EUREKA	9550
[REPORT]	[MAP]	PACIFIC GAS & ELECTRIC/ HUMBOLDT BAY POWER PLANT	CAT080011562	HAZ WASTE - RCRA	CLOSED	1000 KING SALMON AVE	EUREKA	9550
[REPORT]	[MAP]	PACIFIC GAS & ELECTRIC/ HUMBOLDT BAY POWER PLANT	80001831	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	1000 KING SALMON AVE	EUREKA	9550
[REPORT]	[MAP]	PG&E EUREKA 1	12490001	STATE RESPONSE	REFER: RWQCB	RAILROAD STREET AND GENEVA	EUREKA	9550
[REPORT]	[MAP]	PG&E EUREKA 2	12490003	EVALUATION	INACTIVE - NEEDS EVALUATION	H/I/FIRST/2ND/ STREETS	EUREKA	9550
[REPORT]		R. E. DAVENPORT	12760001	HISTORICAL	REFER: RWQCB	34 W. WATERFRONT	EUREKA	9550
[REPORT]	[MAP]	REDWOOD ACRES	12070002	VOLUNTARY CLEANUP	REFER: RWQCB	3750 HARRIS STREET	EUREKA	9550
[REPORT]	[MAP]	SCHMIDBAUER LUMBER INC	12240068	VOLUNTARY CLEANUP	REFER: RWQCB	FT OF CLARK	EUREKA	9550
[REPORT]	[MAP]	SCOTIA GYMNASIUM FACILITY	60003091	SCHOOL EVALUATION	NO ACTION REQUIRED	230 MILL STREET	SCOTIA	9556
[REPORT]	[MAP]	SCOTIA RECREATION CENTER	60000649	SCHOOL EVALUATION	NO ACTION REQUIRED	SOUTHERN END OF MILL STREET	SCOTIA	9556

JUMP TO PAGE: 1 2

11/3/22, 12:37 PM EnviroStor Database



Google Map data ©2022 Google 10 km Report a map error

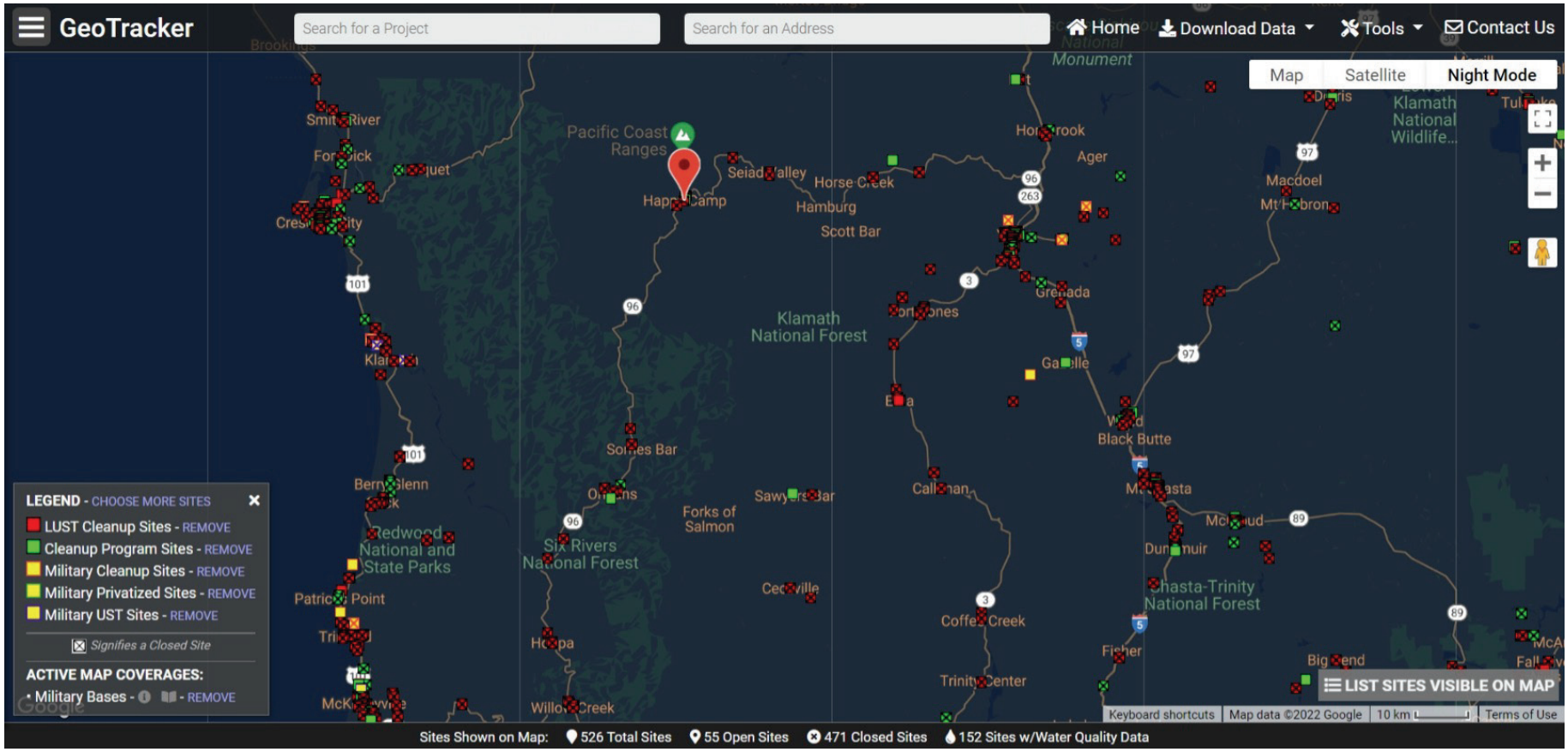
SITES CURRENTLY VISIBLE ON MAP 40 SITES LISTED EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
ABANDONED ASBESTOS MINE	REFER: OTHER AGENCY	EVALUATION	TOWNSHIP 37 N RANGE 5 W SECTIONS 2 & 12	SHASTA COUNTY
AMERICAN FABRIC CARE	INACTIVE - NEEDS EVALUATION	EVALUATION	490 SOUTH BROADWAY	YREKA
BIG LAGOON BOMBING TARGET (IND RESERV) (J09CA0064)	NO FURTHER ACTION	STATE RESPONSE		BIG LAGOON
BIG LAGOON TARGET RANGE	NO FURTHER ACTION	MILITARY EVALUATION		BIG LAGOON
BLUE LEDGE MINE	ACTIVE	FEDERAL SUPERFUND	2 MILES SOUTH OF OREGON ON ROAD 1060	ROGUE RIVER NATIONAL FOREST
[illegible]	[illegible]	[illegible]	BTW NORTON FLD & TRINITY	[illegible]

https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=happy+camp 1/1

SITES IDENTIFIED WITH WASTE CONSTITUENTS ABOVE HAZARDOUS WASTE LEVELS OUTSIDE THE WASTE MANAGEMENT UNIT

COUNTY	CITY	REGION	SWAT	WASTE DISCHARGER SYSTEM NO.	SOLID WASTE ID NO.	WASTE MANAGEMENT UNIT NAME	FACILITY NAME	AGENCY NAME
DEL NORTE	CRESCENT CITY	1	2	1A880520NSL-01		DEL NORTE COUNTY- PESTICIDE STORAGE	DEL NORTE PESTICIDE STORAGE AR	DEL NORTE, COUNTY OF
CONTRA COSTA	PITTSBURG	2	1	2 071059002-02	07-A1-0001	U.S. STEEL CORP.-PITTSBURG SITE LA	WDR-USS-POSCO	USS-POSCO
SOLANO	VALLEJO	2	1	2 482011003-01	48-AA-0008	US NAVY MARE ISLAND SANITARY LANDFILL	WDR-NAVAL SHIPYARD/CLASS I LAN	MARE ISLAND NAVAL SHIPYARD
CONTRA COSTA	RICHMOND	2	3	2 071007002-01		CHEVRON CHEMICAL COMPANY-OLD SITES	WDR-ORTHO DIV-RICHMOND PLANT	CHEVRON CHEMICAL COMPANY
MONTEREY	FORT ORD (Marina)	3	1	3 270301004-01	27-AA-0015	FORT ORD LANDFILL	SANITARY LANDFILL	U.S. ARMY, FORT ORD
SANTA BARBARA	LOMPOC	3	3	3 420305001-01	42-AA-0017	LOMPOC CITY LANDFILL	SOLID WASTE DISPOSAL SITE	LOMPOC CITY
LOS ANGELES	MONTEREY PARK	4	1	4B190332001-01	19-AM-0001	OPERATING INDUSTRIES LANDFILL	OPERATING INDUSTRIES, INC.	OPERATING INDUSTRIES, INC.
TULARE	WOODLAKE	5F	1	5D540300010-01	54-AA-0007	TULARE COUNTY-WOODLAKE LANDFILL	WOODLAKE SWDS	TULARE, COUNTY OF
FRESNO	FRESNO	5F	2	5D100300001-01		MCKINLEY AVE. YARD	T.H. AGRICULTURE AND NUTRITION	NORTH AMERICAN PHILLIPS
KINGS	CORCORAN	5F	2	5D160302001-01	16-AA-0011	KINGS COUNTY-CORCORAN LANDFILL	CORCORAN SWDS	KINGS COUNTY WASTE MGMT AUTH.
FRESNO	FRESNO	5F	3	5D100319001-01	10-AA-0013	ORANGE AVENUE DISPOSAL COMPANY	ORANGE AVENUE LANDFILL	ORANGE AVENUE DISP CO. INC
TULARE	EXETER	5F	3	5D540300003-01	54-AA-0002	TULARE COUNTY-EXETER DISPOSAL SITE	EXETER SWDS	TULARE, COUNTY OF
MERCED	ATWATER	5F	4	5C240115001-01		ATWATER CITY	BERT CRANE ROAD LANDFILL	ATWATER, CITY OF
FRESNO	FOWLER	5F	5	5D100325N01-01		FOWLER CITY	FOWLER CITY LANDFILL (OLD)	FOWLER, CITY OF
BUTTE	OROVILLE	5R	2	5A042005001-01		KOPPERS COMPANY-OROVILLE SITE	KOPPERS WOOD PRESERVING ISW	KOPPERS INDUSTRIES INC.
BUTTE	CHICO	5R	4	5A040302N01-01		CHICO CITY BURN DUMP	HUMBOLDT ROAD LANDFILL	CHICO, CITY OF
SACRAMENTO	SACRAMENTO	5S	1	5A340700003-01	34-AA-0008	US AIR FORCE-MCCLELLAN AFB LANDFILL	CLASS III SITE 8 (CLOSURE)	US AIR FORCE-MCCLELLAN AFB
SACRAMENTO	MATHER (Rancho Cordova)	5S	2	5A340700001-01		US AIR FORCE-MATHER FIELD LANDFILL	MATHER AFB ENVIRONMENTAL MGMT	US AIR FORCE – MATHER AFB
SACRAMENTO	SACRAMENTO	5S	3	5B342000N01-01		SACRAMENTO ARMY DEPOT	SACRAMENTO ARMY DEPOT	U.S. ARMY
SAN JOAQUIN	STOCKTON	5S	3	5 390002NUR-01	39-AA-0006	US NAVY COMMUNICATIONS LANDFILL	U.S.N. COMMUNICATION STA. LANDF	U.S. NAVY COMMUNICATIONS
SAN JOAQUIN	FRENCH CAMP	5S	3	5 390003NUR-01		US ARMY-SHARPE ARMY DEPOT	US ARMY-SHARPE ARMY DEPOT	US ARMY
SAN JOAQUIN	TRACY	5S	5	5 390006NUR-01		SITE 300 (OTHER 39 WMUS)	LAWRENCE LIVERMORE LAB	LAWRENCE LIVERMORE LABS
INYO	KEELER	6V	1	6B142000041-01	14-AA-0008	US TUNGSTEN OWENS LAKE LANDFILL	OWENS LAKE LANDFILL	UMETCO MINERALS CORPORATION
ORANGE	FULLERTON	8	1	8300002NUR-01		MCCOLL SITE	MCCOLL SLUDGE DISPOSAL SITE	TOXIC SUBSTANCES CONTROL DIVIS
RIVERSIDE	RIVERSIDE	8	1	8 330325001-01		STRINGFELLOW QUARRY ACID PITS	STATE OF CALIFORNIA-STRINGFELLOW	TOXIC PROGRAM MANAGEMENT SECT


GeoTracker
Search for a Project
Search for an Address
Home
Download Data
Tools
Contact Us
Map
Satellite
Night Mode
Pacific Coast Ranges
Happy Camp
Seiad Valley
Horse Creek
Hamburg
Scott Bar
Klamath National Forest
Somes Bar
Forks of Salmon
Sawyers Bar
Cecilville
Six Rivers National Forest
Redwood National and State Parks
Patrick's Point
Orleans
Hoopa
Willow Creek
Callahan
Coffee Creek
Trinity Center
Grenada
Gazelle
Weed
Black Butte
Mount Shasta
Mc Cloud
Dunsmuir
Chasta-Trinity National Forest
Fisher
Big Bend
Macdoel
Ager
Klamath National Wildlife...
LEGEND - CHOOSE MORE SITES
LUST Cleanup Sites - REMOVE
Cleanup Program Sites - REMOVE
Military Cleanup Sites - REMOVE
Military Privatized Sites - REMOVE
Military UST Sites - REMOVE
Signifies a Closed Site
ACTIVE MAP COVERAGES:
Military Bases - REMOVE
LIST SITES VISIBLE ON MAP
Keyboard shortcuts
Map data ©2022 Google
10 km
Terms of Use
Sites Shown on Map:
526 Total Sites
55 Open Sites
471 Closed Sites
152 Sites w/Water Quality Data

This page intentionally left blank.